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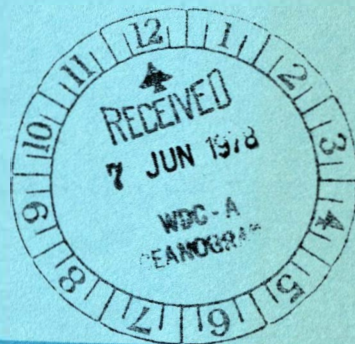
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CLIMATE FORECAST VERIFICATION VIA MULTINOMIAL STOCHASTERS

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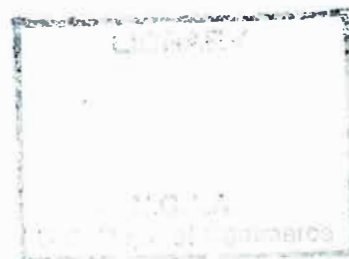
December 1977

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## ABSTRACT

The problem of attaching some quantitative measure of skill to forecasts of temperature, precipitation and other physical fields over extensive regions of the atmosphere and hydrosphere is examined. It is suggested that to each forecaster we may assign a competitive stochaster, a device or person that performs the same forecast over the same regions of space and time as the forecaster, but using a specially designed random procedure. This notion is illustrated for the case of a multinomial stochaster, by means of numerical studies of actual temperature and precipitation forecasts over the U.S. mainland for various seasons over the past three years. Specially designed tables and charts show how quantitative judgments of forecaster skills can be made in a variety of ways.

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# CLIMATE FORECAST VERIFICATION VIA MULTINOMIAL STOCHASTERS

Rudolph W. Preisendorfer

## 0. Introduction

In this work we develop a general approach to the problem of forecast verification in physical climatology. This problem has already been the subject of numerous studies (cf. e.g., Brier and Allen, 1951; Namias, 1953; Panofsky and Brier, 1958; and their references). We are encouraged to make another essay in this direction because these studies have only presented partial solutions of the problem by omitting essential stochastic elements; or if the latter were included, then the appropriate common geometric setting of the forecast and its realization (the predictand) was not developed. Moreover, some early studies of the problem have confused its formulation by introducing elements of subjectivity and qualitative reasoning into what is a matter requiring objectivity and quantitative reasoning.

In what follows we will take the point of view that both the forecast and its realization must be treated within the same quantitative framework: the *forecast* will be viewed as *the numerical specification of values that a geophysical field* (e.g., temperature, pressure, precipitation or some combination thereof) *will take, at some specified times in the future over a specified set of spatially distributed points*. The predictand field will be couched in precisely the same framework and so will be wholly commensurate with the forecast field. For example, if the predictand field is atmospheric pressure at  $n$  points of the U.S. mainland and the values of pressure are classified into  $r$  categories at each point, then so too will the forecast field be presented in  $r$ -tile form at each of these  $n$  points.

Moreover, in what follows we will solve the problem of finding a suitably general reference forecaster, i.e., a verifier against which the skill of all forecasters

can be gauged. We will do this by choosing the *stochaster* as a worthy competitor of the forecaster. That is, we choose a stochastic forecaster (a person or device) which is assigned precisely the forecast problem faced by its competitor, and proceeds in a purely random way to solve it: both forecaster and stochaster, each in his own characteristic way, must predict the future state of the same geophysical field over the same set of spatial points and same set of future times. *There is accordingly, in principle, a stochaster assignable to each forecaster whose efforts are to be verified.*

For us, then, a *verification* of a forecast consists of two parts, namely the application of: (i) *a quantitative measure of the degree of match between a given predictand and the forecaster's prediction;* and (ii) *a probability measure of attaining the same degree of match between the given predictand and the associated stochaster's prediction.* In every practical instance these two parts of the verification are required to be readily converted into tabular or graphical form. In particular the forecaster's skill may be depicted as a point (in a suitably dimensioned euclidean point- or subset-space) to which has been assigned a level of statistical significance via the performance of the competing stochaster at that same point. *Thus when two different forecaster's skills are to be compared, this must be done on the same geometric-probabilistic background, namely that of their common stochastic competitor.* In this way we can also solve the problem of comparing the relative merits of a wide range of possible different forecasters\* all attempting to predict the same geophysical field's configuration over the same space points and same set of future times. This, obviously, requires the appropriate cooperative preliminary arrangements by two or more forecasters to insure that their recorded efforts will fall into the common geometric-probabilistic verification framework.

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\* These can range from the simplest, such as the persisters and advectors, to the most advanced of current prediction strategies.

We will use our general approach to develop several of these frameworks so as to attain a hierarchy of ever-increasing stringency, appropriate parts of which may be adopted by each forecaster, who, as his mastery increases, can then apply ever more rigorous tests of his forecast skills. Moreover, it will be possible for him to compare his skills with those of other forecasters who attempt the same forecasts in a common framework, such as any of those given in the hierarchy below.

The general principles utilized in the present approach are of sufficient breadth so as to allow their extension to virtually every problem setting the climate forecaster may encounter. However, in the interests of brevity we will in this study explore only a specific class of stochasters, namely the class of multinomial stochasters. This class is already so broad that it will cover many, if not all, of the cases encountered in usual practice. Yet we should mention that there exist settings which require classes of stochasters that are not multinomial per se. For example, global skill scores for analog forecasts require stochasters that are not multinomial, but rather an immediate generalization of these, i.e., the multi-vectorial stochasters. It will be noted, however, that the verification principles (i), (ii) enunciated above are still applicable as guides to attain the appropriate forms of the match and significance quantities, now in the analog setting.

Having attained a general objective and quantitative overview of forecast verification, one can now go on to apply it in various ways to the practical aspects of economics and administrative problems contingent on sound forecasts and their verifications. These problems, of course, are beyond the immediate scope of this study and will be reserved for a future time. Yet we wish to make one important observation in this regard: if we possess an objective, quantitative verification system of adjustable stringency, such as that developed below, then it will always be possible to extract from it auxiliary quantitative, or even qualitative measures of forecast verification applicable to the specific needs of the less quantitative

fields of economics and administration. In other words, we can more easily, in such matters as these, descend the ladder from objectivity to subjectivity and from quantity to quality rather than ascend it, and we now possess the basis for such descents.

### 1. Forecaster vs the Mean Stochaster

The simplest form of competition between forecaster and stochaster uses the expected value of the stochaster's performance as a point of reference. This is exemplified in the popular form of the skill  $S_n$  given by the Heidke formula (Brier and Allen, 1951):

$$S_n = \frac{u - \bar{u}}{n - \bar{u}} \quad (1.1)$$

where  $u$  is the number of 0-class errors (number of correct predictions) made by the forecaster in a set of  $n$  forecasts, and  $\bar{u}$  is the expected number of 0-class errors made by the stochaster.

In viewing (1.1) within the framework of our verification principles (i) and (ii) defined in §0, the quantitative degree of match between predictand and prediction is  $u$ , but the probability measure associated with the stochaster is missing. The stochaster's mean  $\bar{u}$  is, of course, a statistical point of reference that serves in (1.1) to tell whether the forecaster has positive or negative skill according as  $u > \bar{u}$  or  $u < \bar{u}$ . But what is missing is some number (a confidence level, e.g.) that tells how much better or worse, respectively, the forecaster's efforts are than blind chance. Thus (1.1) serves only to tell whether one is doing better or worse than chance, but not by how much, in a probabilistic sense.

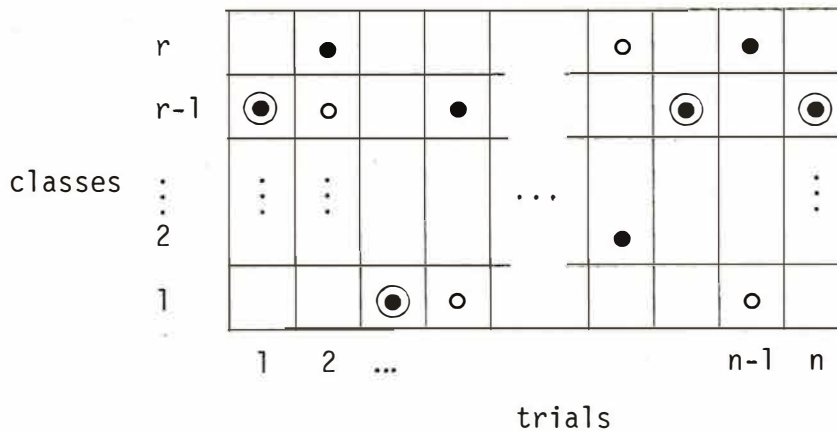
Consider, e.g., the lists of skill scores in Table 9. These may be associated



with the following hypothetical situation: A temperature field (say) is to be predicted over the U.S. mainland at 99 selected points (cf Fig. 1). Thus  $n=99$  in (1.1). The predictions are to be made by stating that, at each point, the temperature will be either above normal (A), normal (N), or below normal (B), where 'normal' is some previously established climatological mean. For this purpose the range of temperatures occurring in the record at each station is divided or partitioned into three equal classes (or intervals): one that contains the normal temperatures, and an interval each that contains the above normal and below normal temperatures. In this way the data have been 'terciled' at each point. Subsequently, the predictions are compared with the actual temperatures realized at each of the 99 points. Let  $u$  be the number of correct predictions (e.g., if A is predicted and A occurs, the prediction is correct). On the average, by chance, one would expect to guess  $1/3$  of the temperatures at the points, so that  $99 \times (1/3) = 33 = \bar{u}$  in (1.1). If, e.g.,  $u=41$ , then the skill  $S_{99}$  would be  $+0.121$ . If  $u=33$ , then  $S_{99}$  would be 0, while 28 correct would have a skill of  $-0.076$ . If two forecasters attempt to predict the same temperature distribution over the same 99 points, then the one with the higher  $S_{99}$  value may be judged to be the more skillful for that particular event. In the long run, the skill scores of one forecaster may average higher than the other, and hence  $S_{99}$  would give some measure of the relative skill of the forecasters. But what about their absolute skills? It may happen that one forecaster is in the long run uniformly better than the other in the  $S_{99}$  sense, but that neither is better at forecasting events than a thrown die attempting to do the same job! In what follows we shall explore the ideas inherent in this last observation, with the goal in mind of attaining one form of an absolute measure of skill against which forecasters' efforts may be pitted.

## 2. Forecaster vs the Binomial Stochaster

One way to improve on the skill score formula in (1.1) is to attach to  $S_n$  the missing statistical significance of the score. This is done by assigning to the forecaster's problem a competitive stochaster. For example, if the physical field has  $n$  points at which it is to be predicted, and the predictions consist in specifying one of  $r$  possible values at each point, then the associated stochaster takes the following form (in the preceding example,  $n=99$ ,  $r=3$ ): at each point the stochaster chooses randomly one of the  $r$  possible values. Hence the probability of choosing any one of the  $r$  values is  $1/r$ . At the next point he starts again and independently of his previous decision, the stochaster chooses randomly from the  $r$  possibilities at that point. He continues this way through all  $n$  points. Now imagine that the predictand is depicted as  $n$  appropriately distributed dots in the following abstract diagram of the prediction problem:



The open circles are forecasts by the stochaster. Sometimes he has a hit (circled dot) and sometimes not. Since his trials of choice are independent of each other, the probability of  $u$  correct predictions is  $(1/r)^u$ . The remaining  $n-u$  predictions are incorrect and have probability  $(1-\frac{1}{r})^{n-u}$  of occurring. The probability of this particular set of  $u$  correct and  $n-u$  incorrect predictions is  $(\frac{1}{r})^u (1-\frac{1}{r})^{n-u}$ . The total probability  $P_n(u)$  of  $u$  correct and  $n-u$  incorrect predictions, regardless of

which  $u$  dots are circled and which  $n-u$  are not, is given by

$$P_n(u) = \frac{n!}{u!(n-u)!} \left(\frac{1}{r}\right)^u \left(1-\frac{1}{r}\right)^{n-u} \quad (2.1)$$

where  $n!/u!(n-u)!$  accounts for the number of distinct ways the stochaster can achieve  $u$  correct predictions in the set of  $n$  dots. Eq (2.1) defines the performance of the *binomial stochaster*: He can have only two outcomes: correct prediction, or wrong prediction.

This probability function supplies the missing information needed in the use of (1.1) to gauge how much better are the forecaster's efforts than the stochaster's. For example, Table 10 lists\* values of  $P_{99}(u)$  and its cumulative probability function

$$Q_{99}(u) = \sum_{j=0}^u P_{99}(j) \quad (2.2)$$

for the case  $n=99$  and  $r=3$ . By (1.1) we can find the values of skill  $S$ , now associated with  $u$  and  $\bar{u}$  for the case  $n=99$ . Thus comparing Tables 9, 10, we see that skill scores of (say)  $+1.06$  or greater are statistically significant at the 95% level. The column '1' in Table 10 corresponds to the  $u$  column in Table 9. Another index of skill in Table 9 is the critical ratio (where  $\sigma$  is the standard deviation):

$$C_{99}(u) = \frac{u - \bar{u}}{\sigma}$$

which is closely related to the approximating gaussian distribution to (2.1) for large  $n$ . The skill number  $S_n$  or the critical ratio are evidently but two of an infinite number of equivalent apparent-skill indicators. Moreover this skill  $S$  as reckoned by (1.1) changes with  $\bar{u}$  and  $n$ , so that  $+1.06$  need no longer be associated with statistical significance at the 95% level.

The main observation to make here is that *skill numbers like the critical ratio  $C_{99}(u)$  or like  $S_{99}=S(u, \bar{u}, 99)$  are by themselves not the true indicators of forecasting skill*. The true indicators (relative to the competing stochaster) are given

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\* See Preface to Tables 10-15, just before them.

via the cumulative probabilities  $Q_{99}(u)$ . Thus, associated with  $u=40$  is  $Q_{99}(u)=.9433$ , (of Table 10) which says that 94.33% of the stochaster's predictions are below 41 correct. Or putting it another way, for every 100 tries by the stochaster to attain 41 or more correct predictions at 99 points, only  $100 - 94.33 = 5.67$  times (on the average) will he be able to do so. Hence if a forecaster *consistently* obtains  $u=41$  or more as a score in the present experimental setting, he is doing well relative to the stochaster, i.e., blind chance.

There is an important point illustrated here which is perhaps too implicitly buried in part (ii) of the verification principle of §0 and which we now draw out in detail: in practice the stochaster works very hard at establishing his level of performance; experiment after experiment (under fixed conditions) goes by as he gradually establishes empirically the  $P_n(u)$  distribution which we so glibly assembled, by logical argument, in (2.1). In an identical practical sense, *a forecaster's true skill emerges only after a sufficient number of experiments have determined (under fixed conditions) his own  $P_n(u)$  distribution relative to that of the stochaster.* If the forecaster is consistently skillful, his 'scatter diagram' of predictions, when superimposed on that of the stochaster, will show some distinctive and favorable form of departure from the latter. This will be illustrated in some discussions below.

### 3. Forecaster vs the Trinomial Stochaster (unsigned errors)

The next step up the ladder of ever more potentially stringent verification tests brings us to the trinomial stochaster. Returning to the diagram in §2 we now look not only at the correct number of predictions by the forecaster and stochaster, but also the number of 1-class, 2-class, ..., (r-1)-class errors they may commit. A *j-class error*,  $0 \leq j \leq r-1$ , is committed if the prediction circle and predictand dot are in classes whose indexes differ by  $j$ . For example a 0-class error ( $j=0$ ) is a

correct prediction, a 1-class error ( $j=1$ ) is a miss by one class. Clearly, for an  $r$ -tile classification of the predictand values, there can be up to  $(r-1)$ -class errors.

A *trinomial stochaster* is a stochaster whose scores are registered in three categories, namely as 0-class errors, 1-class errors, and  $\bar{2}$ -class errors. The latter are all errors of class 2,3,..., up to  $r-1$ , lumped together. We thus see that the trinomial stochaster is the next step higher than the binomial stochaster; the latter's scores are registered as 0-class errors and  $\bar{1}$ -class errors, where the latter are all errors of class 1, 2, ...,  $r-1$ , lumped together.

We can determine the probability  $a_j$  that a stochaster may commit a  $j$ -class error, as follows. Clearly  $a_0=1/r$ . Another way to see this is to reckon  $a_0$  as:

$$\begin{aligned} a_0 &= \sum_{i=1}^r (\text{prob. that stochaster chooses cell } i) \times (\text{prob. that predictand is in cell } i) \\ &= \sum_{i=1}^r \frac{1}{r} \times \frac{1}{r} = \underbrace{\frac{1}{r^2} + \frac{1}{r^2} + \cdots + \frac{1}{r^2}}_{r \text{ terms}} = \frac{1}{r} \end{aligned}$$

Continuing in this way:

$$\begin{aligned} a_1 &= \sum_{i=1}^r (\text{prob. that stochaster chooses cell } i) \times (\text{prob. that predictand is in cell } (i-1) \text{ or cell } (i+1)) \\ &= \frac{1}{r} \left(\frac{1}{r}\right) + \underbrace{\frac{1}{r} \left(\frac{1}{r} + \frac{1}{r}\right) + \cdots + \frac{1}{r} \left(\frac{1}{r} + \frac{1}{r}\right)}_{(r-2) \text{ terms}} + \frac{1}{r} \left(\frac{1}{r}\right) \\ &= \frac{2(r-1)}{r^2} \end{aligned}$$

Again,

$$\begin{aligned}
 a_2 &= \sum_{i=1}^r (\text{prob. that stochaster chooses cell } i) \times (\text{prob. that predictand is} \\
 &\qquad\qquad\qquad \text{in cell } (i-2) \text{ or cell } (i+2)) \\
 &= \frac{1}{r} \left(\frac{1}{r}\right) + \frac{1}{r} \left(\frac{1}{r}\right) + \underbrace{\frac{1}{r} \left(\frac{1}{r} + \frac{1}{r}\right) + \cdots + \frac{1}{r} \left(\frac{1}{r} + \frac{1}{r}\right)}_{(r-4) \text{ terms}} + \frac{1}{r} \left(\frac{1}{r}\right) + \frac{1}{r} \left(\frac{1}{r}\right) \\
 &= \frac{2(r-2)}{r^2}
 \end{aligned}$$

From these we can guess the general pattern for the probability  $a_j$ , namely:

$$a_j = \frac{2(r-j)}{r^2}, \quad 1 \leq j \leq r-1. \quad (3.1)$$

This may be checked, and a formal proof devised, by considering in detail, e.g., the cases for  $r = 6, 7$ . Another check consists in seeing that the sum of the  $a_j$  is unity

$$a_0 + \sum_{j=1}^{r-1} a_j = \frac{1}{r} + \sum_{j=1}^r \frac{2(r-j)}{r^2} = 1$$

As an example, if  $r=3$ , so that we tercile the field values at each point, then  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ .

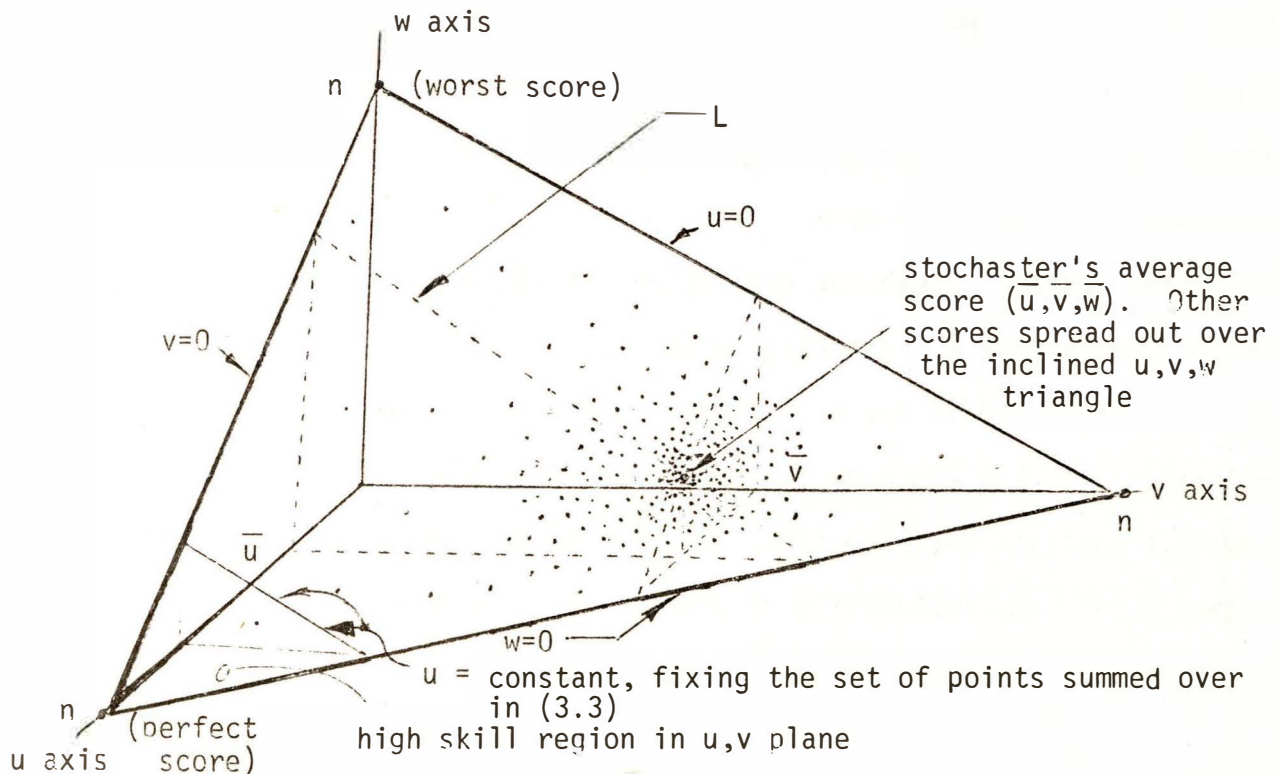
Now suppose that, in the context of the diagram of §2, the stochaster makes  $n$  predictions. Let  $u, v, w$  be the resulting number, respectively, of 0-class, 1-class, and  $\bar{2}$ -class errors. The probability of committing each type of error singly at a time is, respectively  $a_0, a_1$ , and  $a_{\bar{2}} (=1-(a_0+a_1))$ . Hence the joint probability of  $u, v, w$  is

$$\begin{aligned}
 p(u,v,w) &= \frac{n!}{u!v!w!} a_0^u a_1^v a_2^w \\
 a_0 + a_1 + a_2 &= 1 \quad \text{r-tile} \\
 &\quad \text{(classification)} \\
 u + v + w &= n
 \end{aligned}
 \tag{3.2}$$

It may be verified that we recover the binomial  $P_n(u)$  of (2.1) if we fix  $u$  and sum  $p(u,v,w)$  over all possible values of  $v,w$ . That is, we fix  $u$ ; then

$$P_n(u) = \sum_{v=0}^{n-u} p(u,v, n-(u+v))
 \tag{3.3}$$

This process of summation may be viewed in the diagram below which gives an overview of the trinomial stochaster's domain. By fixing  $u$ , we fix a plane through  $u$  and parallel to the  $vw$  plane. The summation in (3.3) is over the lattice points of line  $L$ .



The scores of the trinomial stochaster are represented as triples  $(u,v,w)$  of integers  $u,v,w$  which sum to  $n$ . Hence the set of all possible scores lies on the finite triangular portion of the inclined plane through the three  $n$ -points on each axis. The probability of each score is given by (3.2). A perfect score is one for which  $u=n$  and  $v=w=0$ , i.e., the point on the  $u$ -axis, a distance  $n$  from the origin. The worst score is the  $n$ -point on the  $w$ -axis, and a score of intermediate skill is the  $n$ -point of the  $v$ -axis. The stochaster, after many experiments of length  $n$ , each experiment resulting in a triple  $(u,v,w)$ , begins to accumulate a cloud of points on the inclined triangle and centered on the average point  $(\bar{u}, \bar{v}, \bar{w}) = (na_0, na_1, na_2)$ . For example, if  $n=99$ , and we choose terciles (so that  $r=3$ ), then  $(\bar{u}, \bar{v}, \bar{w}) = (33, 44, 22)$ .

#### 4. Forecaster vs the Trinomial Stochaster (signed errors)

Suppose we are not only interested in the number of  $j$ -class errors committed by a forecaster, but also whether his errors were above or below the predictand mark. That is, e.g., if the predictand in a tercile classification were 'N', and the forecast error were of class 1, we would like to know specifically if it were either A or B. We now design a stochaster that will score a forecaster on the basis of such 'signed' errors. In this manner we supplement the significance tests of §3 by giving a way whereby we can determine if the forecaster tends on the average to over-or-undershoot the mark.

After going through the derivations of §3, the present derivation is relatively simple. (Refer to the first diagram of §2.) A *positive* [*negative*]  $j$ -class error  $1 \leq j \leq r-1$  is committed if the prediction circle lies  $j$  indexes above [below] the predictand dot. For example, if the circle is in class 3 while the dot is in class 1, there is a positive 2-class error. Patterning our reasoning on that in §3A, we can see that  $a_j(+)$ , the probability of a positive  $j$ -class error, is



$$a_j(+)=\frac{(r-j)}{r^2} \quad 0 \leq j \leq r-1 \quad (4.1)$$

and similarly

$$a_j(-)=\frac{(r-j)}{r^2} \quad 0 \leq j \leq r-1 \quad (4.2)$$

is the probability of a negative  $j$ -class error. For example, if  $r=3$ , then  $a_0=1/3$ ,  $a_1(+)=a_1(-)=2/9$ ,  $a_2(+)=a_2(-)=1/9$ .

Our test for predictive symmetry in forecasting is supplied by the trinomial stochaster whose elementary probabilities are

$$a(0) = 1/r \quad (4.3)$$

$$a(+)=\sum_{j=1}^{r-1} a_j(+)=\frac{1}{2}\left(1-\frac{1}{r}\right) \quad (4.4)$$

$$a(-)=\sum_{j=1}^{r-1} a_j(-)=\frac{1}{2}\left(1-\frac{1}{r}\right) \quad (4.5)$$

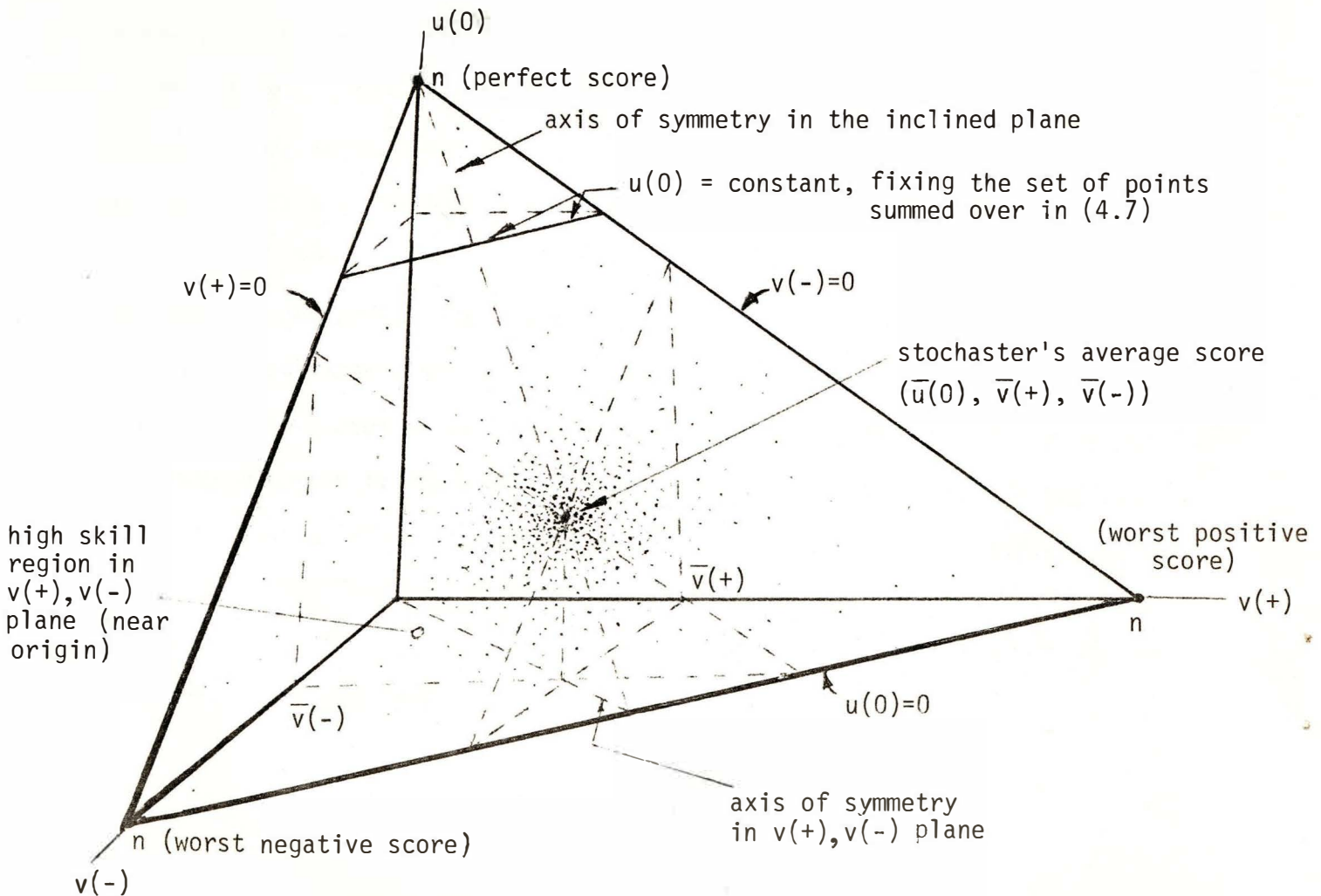
Here  $a(0)$  is the probability of a 0-class error.  $a(+)$  gives the probability of a positive-class error, while  $a(-)$  is the probability of a negative-class error. The joint probability  $p(u(0), v(+), v(-))$  of  $u(0)$  0-class errors,  $v(+)$  positive-class errors and  $v(-)$  negative-class errors incurred in a set of  $n$  independent trials by the stochaster is

$p(u(0), v(+), v(-)) = \frac{n!}{u(0)!v(+)!v(-)!} [a(0)]^{u(0)} [a(+)]^{v(+)} [a(-)]^{v(-)}$	(4.6)
$a(0) + a(+) + a(-) = 1$	(r-tile classification)
$u(0) + v(+) + v(-) = n$	

It may be verified that we recover the form of  $p_n(u)$  of (2.1) if we fix  $u(0)$  and sum  $p(u(0), v(+), v(-))$  over all possible values of  $v(+), v(-)$ . That is, suppose we fix  $u(0)$ ; then

$$P_n(u(0)) = \sum_{v(+)=0}^{n-u(0)} p(u(0), v(+), n-(u(0)+v(+))) \quad (4.7)$$

The process of summation may be visualized in the diagram below which gives an overview of the trinomial stochaster's domain.



We now have an axis of symmetry in the stochaster's domain, either on the tipped triangular area or in the  $v(+)$ ,  $v(-)$  plane, about which the stochaster's scores lie. For example, the expected (average) scores of the stochaster for the case  $n=99$ ,  $r=3$  are  $(na(0), na(+), na(-)) = (33, 33, 33)$ .

### 5. Forecaster vs the Multinomial Stochaster; (the concept $\chi^2$ )

We will now explicitly consider more than three  $j$ -class errors in our search for the significance of forecaster skills. Of course, we can no longer visualize the skills in simple geometric diagrams, but we gain instead a useful parameter, the  $\chi^2$  value, belonging to the forecaster's performance. We shall turn this parameter back into our preceding analyses to help solve the problem of ordering the skills when given in trinomial form. Thus the following excursion into the domain of the multinomial stochaster, while of possible interest in later studies, is actually our present means of introducing, in a natural way, the  $\chi^2$  quantity into the theory of the trinomial stochaster.

We return to the first diagram of §2 and let the stochaster perform an experiment of  $n$  independent prediction trials. Let  $u_0, u_1, \dots, u_{r-1}$  be respectively the number of 0, 1,  $\dots$ ,  $r-1$  class errors he commits in that experiment. Let  $a_0, a_1, \dots, a_{r-1}$  be the elementary probabilities that he commits such errors, respectively. Values for these were derived in §3. Therefore we can in principle compute the joint probability for the  $r$  values  $u_j$ :

$$\begin{aligned}
 p(u_0, u_1, \dots, u_{r-1}) &= \frac{n!}{u_0! u_1! \dots u_{r-1}!} a_0^{u_0} a_1^{u_1} \dots a_{r-1}^{u_{r-1}} \\
 u_0 + u_1 + \dots + u_{r-1} &= n && \text{(r - tile classification)} \\
 a_0 + a_1 + \dots + a_{r-1} &= 1
 \end{aligned}
 \tag{5.1}$$

By approximating the factorials in this expression, using Sterling's formula, by writing

$$'x_j' \text{ for } \frac{(u_j - na_j)}{(na_j)^{1/2}}, \quad (5.2)$$

and by making some further algebraic reductions, we find that, to good approximation,

$$p(u_0, u_1, \dots, u_{r-1}) = (2\pi n)^{(1-r)/2} (a_0 a_1 \dots a_{r-1})^{-1/2} \exp\{-\frac{1}{2} \sum_{i=0}^{r-1} \chi_i^2\} \quad (5.3)$$

In this way we condense all the  $j$ -class scores  $u_j$  into a single number of the form

$$\chi^2 \equiv \sum_{i=0}^{r-1} x_i^2 = \sum_{r=0}^{r-1} \frac{(u_j - na_j)^2}{na_j} \quad (5.4)$$

This quantity, as is well known,\* is governed by the  $\chi^2$ -distribution (using our  $r$ -tile notation):

$$T_{r-1}(\chi^2) d(\chi^2) = \frac{(\chi^2)^{(r-3)/2} e^{-\frac{1}{2}\chi^2}}{2^{(r-1)/2} \Gamma(\frac{r-1}{2})} \cdot d(\chi^2) \quad (5.5)$$

Since the  $u_j$  are constrained to add up to  $n$ , there are only  $r-1$  degrees of freedom associated with (5.5).

For example, let  $n=99$ ,  $r=3$  and consider the signed errors of §3. Then  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ , and we now have

$$\chi^2 = \frac{(u-33)^2}{33} + \frac{(v-44)^2}{44} + \frac{(w-22)^2}{22} \quad (5.6)$$

and

$$T_2(\chi^2) d(\chi^2) = \frac{1}{2} e^{-\frac{1}{2}\chi^2} d(\chi^2)$$

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\* See, e.g., Kenney, J. F., 'Mathematics of Statistics' (part two), D. Van Nostrand Co. N.Y. (1947) (7th printing). p167 has a particularly clear derivation of the  $\chi^2$  distribution's form from (5.3).

In this case we have two degrees of freedom.

Equation (5.6) gives the probability of occurrence of all those triples  $(u,v,w)$  with  $\chi^2$  values in the range  $(\chi^2 - \frac{1}{2}d(\chi^2), \chi^2 + \frac{1}{2}d(\chi^2))$ . Since (as we shall see below) the set of all  $(u,v,w)$  having exactly some fixed  $\chi^2$  value generates an ellipse in the  $uv$  plane of the diagram of §3, (5.6) gives the element of probability that the triples lie in an elliptical annulus defined by  $\chi^2 \pm \frac{1}{2}d(\chi^2)$ .

The approximation (5.6) must be examined for accuracy in our present work on the trinomial stochaster. This will be done in detail below (§7). But for the moment, we can view (5.6) as a possible tool for ranking the skill of a forecaster. In general, for a specified  $n$ ,  $a_0$ ,  $a_1$ ,  $a_2$ , we can form the quantity

$$\chi^2 = \frac{(u-\bar{u})^2}{\bar{u}} + \frac{(v-\bar{v})^2}{\bar{v}} + \frac{(w-\bar{w})^2}{\bar{w}} \quad (5.7)$$

where

$$\bar{u} = na_0, \quad \bar{v} = na_1, \quad \bar{w} = na_2$$

and compute the probability of the value  $\chi^2$  associated with  $(u,v,w)$ . One might expect that of two forecasts, the one with the greater  $\chi^2$  value is the better, since its  $u,v,w$  values would depart on the average more from the mere chance values  $\bar{u}, \bar{v}, \bar{w}$  than the other forecast. Unfortunately, this is not generally correct. Mere departure from the chance point  $(\bar{u}, \bar{v}, \bar{w})$  in the triangular score plane of §3 is not enough to insure high skill. As we have seen, triples near the point  $(n,0,0)$  are to be preferred by an ambitious forecaster. How to rank the skill value of points in the  $uv$  plane is an important and to some extent an elusive problem. It will be taken up next.

## 6. The Problem of Ranking Forecasting Skill in the Context of Trinomial Stochasters

We shall, in the present context of trinomial stochasters, explore several ways, all more or less objective, in which we can make a judgment that a forecast is good or bad.

### A. $\chi^2$ Ellipses and their associated probabilities

As we saw in §5, the  $\chi^2$  value associated with a performance triple  $(u,v,w)$  resulting from a forecast can in turn have an ellipse and a probability associated with it. Without going through all the mathematics (given in §7, below) we can understand the connection between the ellipse and its probability, as follows.

Let  $T$  be the set of all possible triples  $(u,v,w)$ ,  $0 \leq u,v,w \leq n$ , enclosed by the scoring pyramid of §3. Since  $u,v,w$  can take on only integral values between 0 and  $n$  inclusive, there are, in all, exactly  $(n+1)(n+2)(n+3)/6$  such triples in  $T$ . (For example, in the case of  $n=99$ , the number of triples is 171,700.) Fortunately, we need not work with all these triples in  $T$ , by virtue of the sum constraint  $(u+v+w=n)$  on them. We may thus restrict our attention to a subset of them, say the  $u,v$  plane. This has only  $(n+1)(n+2)/2$  points of interest (for example, in the case of  $n=99$ , the number of  $(u,v)$  pairs is 5050). Each of these points may be envisioned (cf the diagram in §3) as the projection of the triple  $(u,v,w)$ , in the triangular plane, down onto its correspondent  $(u,v)$  in the  $uv$  plane. Some observations follow.

1) To each projected point  $(u,v)$  in the  $uv$  plane we may uniquely assign the probability of its associated point  $(u,v,w)$ , as given by (3.2). For example by Table A (with  $a_0 = 1/3$ ,  $a_1 = 4/9$ ,  $a_2 = 2/9$ ,  $n=99$ ) the point  $(33, 33, 33)$  has the probability .00017 and we assign this probability to  $(33, 33)$ . The point  $(33, 44, 22)$  (the 'average' point) has probability .00880, and we assign this to  $(33, 44)$ . Thus every point  $(u,v)$  in the  $uv$  plane has a probability, namely that of the unique point  $(u,v, n-(u+v))$  above it on the triangular plane.

2) To every point  $(u,v)$  in the  $uv$  plane there is assignable via (5.7) a

unique  $\chi^2$  value, namely that of the unique point  $(u,v,n - (u+v))$  above it (For example, for  $n=99$ , and  $r=3$ , with  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ , the point  $(33,33)$  has  $\chi^2 = 8.2500$ , and the point  $(33,44)$  (the 'average' point) has  $\chi^2 = 0$ ). The set of points  $(u,v)$  in the  $uv$  plane having a  $\chi^2$  value not exceeding  $\chi_0^2$  form an approximately elliptical region about  $(\bar{u},\bar{v})$ , the average point, as center and with a well defined total probability. (For example, with  $n=99$ ,  $r=3$ ,  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ , if we set  $\chi_0^2 = 1.4621$ , it turns out that there are about 79 points within the ellipse associated with  $\chi_0^2$  (see Fig. 24) and moreover the sum of the probabilities of these 79 points, each probability reckoned via (3.2), comes to .50206.) Thus to each value of  $\chi^2$  we have assignable a probability, namely the sum of all probabilities of the points caught within the elliptical region defined by  $\chi^2$ .

3) Examples of the  $\chi^2$ -ellipses may be seen in Figs 26, 27, 28, 29. In particular, in Fig 26 we show the six ellipses associated with probabilities .50, .80, .90, .95, .98, .99 for the case of  $n=99$ ,  $r=3$ , and  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ . Thus, the outermost ellipse contains 99% of all the probability mass generated by the stochaster: that is, if the stochaster makes a large number, say 100 experiments at forecasting tercile values at 99 points with basic probabilities for 0, 1-, and 2-class errors given by  $1/3$ ,  $4/9$ ,  $2/9$ , respectively, then on the average, 99 of his performance pairs  $(u,v)$  will fall within the ellipse. The ellipses in Fig 27 may be described in the same way, but now for the case  $n=99$ ,  $r=5$  (i.e., quintiles) for which  $a_0=1/5$ ,  $a_1=8/25$ ,  $a_2=12/25$ .

#### B. Various performance regions in the trinomial domain

We now may consider the problem of ranking skill scores, or of grouping them into regions of high or low skill. To fix ideas, consider Fig 2 which depicts the trinomial domain for the case of unsigned tercile errors (§3) in which  $n=99$ ,  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ .  $u$  is measured along the horizontal axis,  $v$  along the vertical axis. The average point is  $(\bar{u},\bar{v},\bar{w}) = (33,44,22)$ . Point 0 is the projection  $(33,44)$  of

this point on the  $uv$  plane. The line  $d-d$  therefore separates the total triangular region into two parts: those points  $(u,v)$  such that  $u > 33$  (have positive skill  $S_{gg}$ ; cf (1.1)) and those points such that  $u < 33$  (have negative skill  $S_{gg}$ ).

1) Suppose in Fig 2 we consider the region bounded by  $d-d$ , the heavy portion of the 95% ellipse, the  $u$  axis, and the diagonal line  $w=0$ . This is a roughly triangular region with a portion of an elliptical region removed. Any point  $(u,v)$  in this region has an associated  $\chi^2$  for which its probability is not less than .95. Hence we may at first believe that points in such a region are statistically significant. Of course, this is a matter of definition. However, we may not wish to consider points on or near  $d-d$  in this region as indicative of great skill in forecasting. For while such points may occur very infrequently (about  $2\frac{1}{2}\%$  of the time) a point such as  $(33,20)$  with only 33 correct predictions and 20 1-class errors (and hence 46 2-class errors) strikes one as indicative of rather mediocre skill. Nevertheless the region so defined is a candidate for high skill, and we can propose it for further study.

2) Consider next the triangular region in Fig 2 bounded by the line  $c-c$ , the diagonal line ( $w=0$ ) and the  $u$ -axis. Call this region 'A'. Recalling our discussion in §2, we know that a score  $(u,v)$  with  $u > 41$  occurs only 5% of the time during a stochaster's attempts to predict. That is, the set of all points  $(u,v)$  in the domain with  $u > 41$  has associated with it a total probability mass of .05. Notice, however, that there are points  $(u,v)$  along the dashed portion of  $c-c$  that fall rather deep within the 95%  $\chi^2$ -ellipse. These particular points are clearly not significant on the 95% level relative to the partitioning of the plane by  $\chi^2$ -ellipses.\* This shows that using only  $u$  values to judge a skill (as in §2) may lead us to misjudge that skill. If we choose that subset of the total triangular

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\* Observe that there are many subsets of the total trinomial domain whose points have a total probability mass of nearly .95. The complement of A and the 95% ellipse under discussion are but two such subsets. One determines the confidence level of a subset by simply totaling the probability mass within it using Table A.



domain consisting of the smaller triangular region A bounded by c-c, less the segment of the 95%  $\chi^2$ -ellipse, we would then have a set of points (u,v) associated with relatively high skill. The statistical significance of the subset would be slightly larger than 95%. (The exact increment of the value, which is near 1%, is not of interest here. It would be found by adding up the probabilities of the points in the elliptical segment removed from the c-c triangular region A. This can be done with the help of Table A.) Thus we have another well-defined candidate for a high-skill region, this one a bit more stringent than in 1) above.

3) The horizontal dashed line b is formed by cutting the pyramidal solid with a plane parallel to the uw plane at a value of v equal to 52, which is the 95% level for a binomial distribution\* with probability of success equal to 4/9, i.e.,  $a_1$  of §3. The inclined dashed line b is formed by cutting the pyramidal solid with a plane parallel to the uv plane at a value of w equal to 29, which is the 95% level for a binomial distribution\* with probability of success equal to 2/9, i.e.,  $a_2$  of §3. Together with the heavy portion of the 95% ellipse, these lines (even though they are generous in their restrictions) define a region of high skill somewhat more stringent than the preceding region. Obviously, a still more stringent region is that defined by a-a, since it contains still less probability mass within its region. Similar regions are defined in Fig 3 for the case of  $r=5$ .

### C. Examples of performance by forecasters

1) Sprinkled throughout the domain of Fig 2 are fourteen points representing the scores of a forecaster denoted by 'A' in Table 1. These scores are the results of actual forecasts of temperature over the 99 points of the U.S. mainland depicted in Fig 1. For example, according to Table 1 the predictions of Winter '74 yielded  $u=42$  correct predictions,  $v=37$  1-class errors and  $w=20$  2-class errors, and the associated (u,v) pair is denoted by '1' in Fig 2. Observe that point 1 is not

\* See binomial probability Tables 11, 12.

significant in any of the three senses 1) - 3) defined above. Neither is point 7, associated with the summer of '75, significant. There are five points 2, 3, 9, 10, 14 that have negative skill and which, moreover, are not significant relative to the 95% contour. The set of six points 4, 5, 6, 8, 11, 12, however, are outside the 95% contour and are situated in high skill regions. In particular the three points 8, 6, 12, especially the latter two, are outstanding forecasts. Point 12, the second most outstanding of them all, was the temperature forecast of the infamous winter of '77. These points are outstanding because they have relatively high  $u$  values (number of correct predictions). Moreover their 2-class errors are very small by virtue of being situated near the  $w=0$  line. In general we may say that the higher the  $u$  value and the smaller the  $w$  value the better the skill. But there are exceptions, and we shall explore this situation at the appropriate time later in this study (cf §6E).

2) Another way of looking at Forecaster A's performance is shown in Fig 4. Here the same fourteen points are displayed in the signed-error domain, as defined in §4.  $v(-)$ ,  $v(+)$  are along the horizontal and vertical axes, respectively. The regions of various stringency are defined as explained in the diagram. Thus the area of least stringency is defined by the axes and the line  $d-d$ . Here we are asking the Forecaster to merely perform better than chance in obtaining the number of correct scores  $u$  which are measured along the axis normal to the diagram. Recalling the perspective view of the scoring plane in §4, it is clear that the closer in toward the origin a forecaster's score lies, the better is his effort. Notice that Forecaster A's two outstanding performances (points 6, 12) stand closest to the origin. The scattering of the fourteen points is generally well balanced: six are in the overshoot region (above axis  $x$ ), eight are below, indicating that Forecaster A's performance is generally not to over or under estimate in his forecasts. In this frame, eight points are considered significant and are circled. They all lie in the region bounded by the axes,  $c-c$ , minus the area in

the 95% ellipse. The region of highest stringency, that bounded by a-a, the 95% ellipse, and the axes, has only three points, 5, 6, 12. This situation should be compared with that of the three points 8, 6, 12 caught in the a-a region of Fig 2. This shows that measures of forecast significance, even in the present relatively objective setting, are near, but not quite, absolute. However, a way of ranking every pair of forecasts will be given below, and which can help remove this ambiguity (cf §6E).

3) The diagrams in Figs 3, 5 are exactly analogous to those in Figs 2, 4, but now for the quintiled-data case. These diagrams have been included here to point up the remarks made earlier that the trinomial scheme of gauging the skill of a forecaster can be made arbitrarily stringent. For example, according to Table 13, for the case of a binomial stochaster with probability of success  $1/5$ , the 95% level of performance is 26 correct predictions out of 99. But suppose in such a quintiled setting we still demand 41 correct (as in the terciled setting of Table 10) to be the mark of a good forecaster. It is seen that  $u=41$  in the context of Table 13 is virtually an impossibly high performance for a *stochaster*. However for an expert competing *forecaster*,  $u=41$  in a quintile setting may not at all be impossibly high; it simply would set a relatively higher demand on that forecaster whose method has reached a state of development in which the terciled setting is not sufficiently stringent, not much of a challenge. This stringency manifests itself in Fig 3 by the closer proximity to the origin of the nested set of elliptical contours. Now, to get to the high  $u$ , low  $w$  places, the forecaster must exert himself considerably more to rise out of the bull's-eye of mediocrity.

#### D. Examples of forecaster vs stochaster

We shall now compare the relative performances of forecasters and stochasters in actual experiments at prediction of temperatures and precipitations over the U.S. mainland.

1) Table 1 gives performances of Forecaster A in terms of unsigned scores  $(u,v,w)$  and also in terms of signed scores  $(u(0), v(+), v(-))$ , as defined in §§3,4. For example, the prediction scores of Forecaster A for the winter of '74 are  $(42, 37, 20) = (u,v,w)$  for the unsigned errors and  $(42, 13, 44) = (u(0), v(+), v(-))$  for the signed errors. The pertinent connections between these errors are given below the table. Thus  $v(+)$  is the sum of the positive 1- and 2-class errors, while  $v$  is the sum of the 1-class errors of positive and negative type. In a similar way we can interpret the remaining Tables 2, 3, 4 for forecasters B, C, D, respectively. All four forecasters were engaged in predicting the temperatures at the 99 points (of Fig 1) over the U.S. mainland for the fourteen seasons listed. These are summarized in Figs 7, 8, 9, 10. The results of their performances in predicting precipitation are summarized graphically in Figs 11, 12, 13, 14, and are tabulated in Tables 5, 6, 7, 8.

2) These latter four figures (11, 12, 13, 14) are worth studying in detail. A first impression is that Forecasters A and B are considerably superior to Forecasters C and D in forecasting precipitation. Of the latter two it appears that D has more points of positive skill than C. Forecaster C has no points in any of the areas of high skill defined in §§ B, C above. Similarly for D, who just barely has a significant point (no. 3) to show for his efforts. Forecasters A and B, however, each have seven significant points: 2, 3, 4, 5, 8, 9, 10 for A and 1, 3, 4, 5, 10, 11, 12 for B. It is remarkable that four of the points they share, namely 3, 4, 5 and 10 lie in just about the same places in each diagram. Also note that each has a common point, namely 7, nearly dead center on the bull's-eye, meaning, of course, a shared poor prediction (the winter of '76). This leads us to conjecture that Forecasters A, B and Forecasters C, D belong to two different classes of ability, and each one in each group is comparable in skill to the other, namely A and B are of comparable skill while C, D are of comparable skill.

3) Turning to Figures 7, 8, 9, 10, we compare the skills of the same four forecasters, now in their attempts to predict temperatures over the 99 U.S. mainland points and over the fourteen seasons listed in Tables 1, 2, 3, 4. Once again Forecasters A, B show definite superiority over C, D. Indeed, Forecasters A, B each have six significant points in high skill areas: Forecaster A has points 4, 5, 6, 8, 11, 12 while B has points 3, 7, 8, 10, 11, 12. Forecaster A showed extraordinary skill at point 6 (spring '75), while B showed such skill at point 3 (summer '74). Forecaster C has points 5, 10, 13 as significant above the 95% level using the  $\chi^2$  criterion. However, observe that these are all of negative skill, showing that a high  $\chi^2$  value (such as may be encountered in a contingency table of classified observations and predictions) does not necessarily mean high skill. Forecaster D has point 10 above the 95% level, but its u value and v value are undistinguished.

4) In Figures 15, 16, 17, 18, the same temperature skills in Tables, 1, 2, 3, 4 for the four forecasters are plotted, now using signed errors (§4). Thus the information in Fig 7 for A is viewed in a new way in Fig 15. The first impression is that Forecaster A tends to have balanced forecasts on the whole: the number of over estimates above the symmetry axis is six while those below are eight. Forecaster B has the same split but in the opposite sense. To help judge the quality of skill of forecasters B, C, D, the reader may wish to lightly sketch in various regions of high skill, as defined in Fig 4, on the appropriate diagrams. The temperature skills viewed via signed errors in Figs 17, 18 are completely undistinguished. Forecaster C seems to have a scattering of eight significant points, but observe that they are not in the high skill areas. Once again, statistical significance in the  $\chi^2$  value doesn't imply quality forecasts.

5) The reader may by now have surmised that forecasters C, D are actually stochasters. We shall describe how they made their predictions.

Stochaster C had five dice before him. The faces that normally had numbers '1' and '2' were marked with 'B', the faces on each die normally marked with '3',

'4', had 'N', and the faces normally marked with '5', '6' had 'A' in the case of temperature predictions. For precipitation 'A,N,B' were replaced by 'L,M,H'. To make a set of five predictions, the stochaster threw all five dice on a smooth flat table.\* The symbols on the scattered dice were always read from left to right and recorded. Each such throw therefore produced five random predictions. The throws continued until an accumulation of 99 predictions had been made. Each of these 99 predictions was then compared with its correspondent for the particular season under study whose actual temperatures or precipitations (in tercile form) had been compiled and listed beforehand for each of the 99 stations. From this point-by-point comparison, the class errors were calculated and tabulated. This process of throwing dice and comparing these results with each of the 99 observed field values was repeated until all seasons had been gone through for each set of temperature and precipitation data.

Stochaster D had before him an urn containing nine white balls. Three of the balls had the symbol '0' inscribed on them; two had '+1', two had '-1'; and one had '+2' while another had '-2' inscribed on it. The numbers of balls for each symbol are the relative frequencies with which the  $j$ -class signed errors,  $j = 0, \pm 1, \pm 2$  occur for terceled data (cf §4). To make predictions the stochaster drew a ball at random from the urn. If it had '0' on it, then it was recorded that he made a correct prediction; if it had ' $\pm 1$ ' or ' $\pm 2$ ' on it, he committed  $\pm 1$ -class or  $\pm 2$ -class errors, respectively for that draw and it was so noted. In all, for a given season he made 99 independent draws from the urn. At the end of the 99 draws the number and type of signed  $j$ -class errors were totaled. From these, the unsigned errors could be found. For example for season 1, Table 4 shows he had the score  $(u,v,w) = (33, 46, 20)$ , obtained from the signed errors as indicated below the table.

6) The differences in appearances between the scatter diagrams of C and D are readily explained: recall that C had a more open pattern than D, signifying

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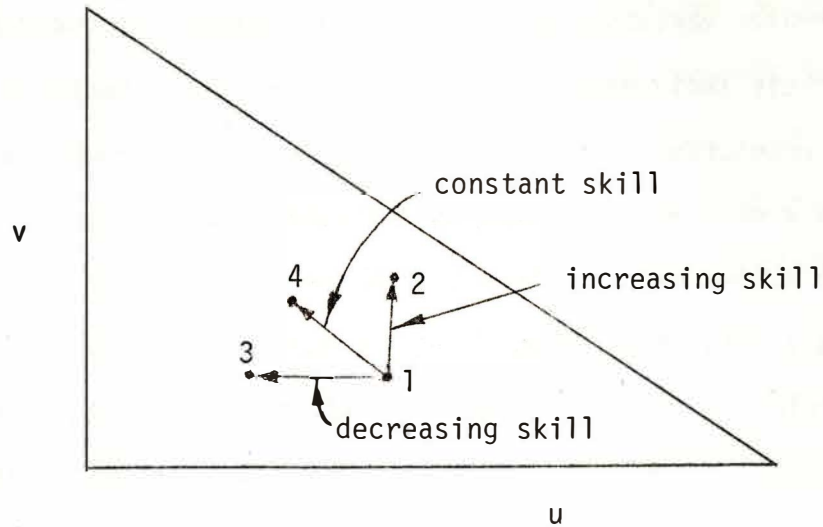
\* There is no significance to the number of dice used; they simply were available from a popular game of chance.

more scatter, greater variability from season to season. These differences are clearly due to their individual means of prediction. Stochaster C worked directly with the actual predictands, while D did something less direct and more abstract: each time D made a move he was driven by the odds of *making an error*; by contrast each time C made a move he was driven by the odds of *making a specific prediction* (A, N, or B, e.g.). In other words, D had a theoretical deduction of a higher order built into him relative to C, so that, in a manner of speaking, each move by D was equivalent to several moves by C. Indeed, if we would let C continue indefinitely, his scatter patterns would relatively rapidly tighten like those of D and in the limit be described by the elliptical contours in the diagrams: 50% of his scores would eventually fall within the 50% contours, 80% within the 80% contours, and so on.

#### E. Ranking performances by moments and $\chi^2$

We may supplement the  $\chi^2$  value of a score in judging skill by the following considerations.

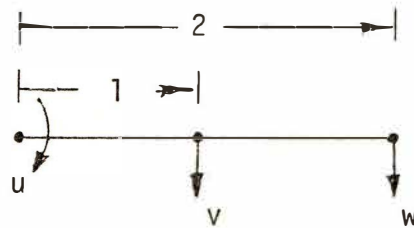
1) In the diagram below, point 1 is given in the uv plane. If on the one hand we rise vertically from 1 so as to leave u fixed, we go to a point 2 which is clearly associated with greater skill since v increases while w decreases; in other words, we are decreasing the 2-class errors and trading them in for 1-class errors, errors which are more palatable to the forecaster. On the other hand, if we move to the left of point 1, horizontally, so as to leave v fixed, we go to a point 3 which is clearly associated with lesser skill since u decreases while w increases; in other words, we are decreasing the 0-class errors and trading them in for 2-class errors.



There must then be an intermediate direction between that of segments 12 and 13, say 14, along which there is no change in the quality of skill. A moment's reflection would show that once we give numerical weights to the importances of the 1- and 2-class errors, this direction of constant skill is fixed. A natural assignment of weights may be made by defining the *moment*  $m$  of a trinomial score. We write

$$'m' \text{ for } 0 \cdot u + 1 \cdot v + 2 \cdot w$$

and call it the *moment of*  $(u,v,w)$  *about*  $u$ . We may envision the  $v$  and  $w$  scores as occurring on a lever



thereby producing a turning moment; the values  $v$ ,  $w$  act like masses and their distances 1, 2 respectively act like moment arms. The object of a forecaster is to minimize



this moment, to bring it down to 0, ideally. The smaller  $m$  is, the better his performance. Since  $u + v + w = n$ , we can write

$$m = 2n - 2u - v \quad (6.1)$$

where  $n$  is the number of prediction locations, as usual. For a fixed  $n$  and  $m$ , (6.1) defines a straight line in the  $uv$  plane, namely

$$v = -2u + (2n-m) \quad (6.2)$$

along which the moments of the scores are constant, and hence, by agreement, the points  $(u,v)$  have equal quality in the moment sense.

2) As a result of this assignment of a moment to each  $(u,v)$  we can, with the help of the  $\chi^2$  ellipses (introduced in § A) lay down a coordinate net over the trinomial  $uv$  domain. By means of this network, shown, e.g., in Fig 6, we can locate points and assign to them relative ranks of performance. For example, on Figs 6, 6a we have placed the average\* points  $(\hat{u}, \hat{v})$  of the scores given in Tables 1-8. The average temperature scores are given on Fig 6, the average precipitation scores are on Fig 6a. It is seen that our earlier conclusions about the essentially equivalent skills of A and B and their superiority over C and D are graphically borne out using the present coordinate frame. The average points of A and B on Fig 6a lie essentially along the same moment line and on the same  $\chi^2$  curve. Each is clearly superior to C and D. However A and B find themselves between the 50% and 80%  $\chi^2$  ellipses, as may be seen by comparing with Fig 6b, in which the 50% - 99% ellipses are also drawn in for comparison. Thus, *on the average*, the performances of A and B are mediocre. These average points are also drawn in as the circled crosses in Figs 7-14. In the

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\* Thus  $\hat{u}$  is the average of all  $u$ -points and  $\hat{v}$  that of all  $v$ -points.

dashed circle with radius equal to the standard deviation and centered on the mean point. These statistics are summarized below Table 1. Observe that in these average temperature and precipitation tables, while A has a larger average  $\hat{u}$  than B, our agreement to measure performances relative to  $\chi^2$  and  $m$  in Fig 6 shows that their performances are essentially the same. If an edge has to be given to one over the other, for the present accumulation of scores, A may be judged slightly superior, by looking at the  $m$  scores below Table 1 or closely at Fig 6 and seeing that, while A and B lie on the same  $\chi^2$  ellipse, A lies on a slightly lower moment line. At this stage of development of the prediction art, these differences are too small either to comfort or discourage A or B, respectively. Observe in particular that the average  $\hat{u}$  score of A or B by itself places either forecaster quite close to the 95% level (cf Table 9). If, however, we look not only at the number of correct predictions, but also at the number of 1-class errors (and hence implicitly the 2-class errors) a new perspective on their performances is attained: *In general, a good average score should land in a high skill region and with a relatively small standard deviation circle.* Both forecasters therefore should be concerned with increasing their *average*  $\hat{u}$  and  $\hat{v}$  scores; it was these that placed them both in a rather undistinguished area of the skill diagram. Moreover, consistently predicting climate *variations* manifests itself in smaller (tighter) scatter diagrams.

Thus we now have a reasonably objective framework in which to gauge forecasting skill as actual scores begin to accumulate and scatter diagrams begin to fill in.

3) We may summarize the ranking procedure using  $m$  and  $\chi^2$  as follows

$$\begin{aligned}
 (u,v) &= (u',v') \quad \text{if} \quad \left\{ \begin{array}{l} \chi^2(u,v) = \chi^2(u',v') \\ m(u,v) = m(u',v') \end{array} \right. \\
 (u,v) &> (u',v') \quad \text{if} \quad \left\{ \begin{array}{l} m(u,v) < m(u',v') \\ \text{regardless of } \chi^2 \\ \text{or } m(u,v) = m(u',v') \\ \text{and } \chi^2(u,v) > \chi^2(u',v') \end{array} \right.
 \end{aligned}$$

In other words, two pairs  $(u,v)$ ,  $(u',v')$  are of equal rank if their moments  $m$  and  $\chi^2$  values agree. Observe they need not be coincident to be of equal rank. Points C, D in Fig 6 are essentially equivalent. Also points 1, 2 are of equal rank. If the moments of two points agree, then we use  $\chi^2$  to break the deadlock, the one with the lesser probability of occurrence (higher  $\chi^2$ ) being of higher rank; e.g., point 2 is of greater rank than 3 in Fig 6. Therefore, in ranking points within a given region or set of points we give precedence to the moment of a score. This is clearly a convention (rather than a logical deduction) but one that is based on the intuitive interpretations of the scores  $u,v$  and their probabilities of occurrence. If a reader takes issue with this convention, then this means that he must (i) decide on a new relative weighting of  $v,w$  errors (and come up with an alternative to the moment  $m$ ) and (ii) decide on the relative importance of the new  $m$ , and  $\chi^2$ . It may be that these relative weights and relative importances would vary with location over the  $uv$  plane.

A word of advice can be made here, in conclusion: whatever one convenes as the method of ranking performances, fine differences and subtle nuances in scoring systems will be swept aside and be inessential in the face of truly superior or even just good forecasting. The present method of ranking appears to go far beyond what has already been used. Perhaps then it is time to turn to the really basic problem at hand, the problem of forecasting, to devote more energy to improving *that* art, and perhaps gauging such efforts with the basically adequate ranking scheme we now have at hand.

## 7. Construction of Tables A-E and EXP

The graphical scoring charts we have used in our studies above are based on some simple analytical geometry and on probability calculations. These latter calculations are summarized in Tables A-E and EXP. They represent a fresh look at the  $\chi^2$  quantity by calculating its values and their corresponding exact probabilities

from the trinomial distribution for  $p(u,v,w)$  given in §3. In particular we compared the approximate probabilities of  $\chi^2$  as given by (5.5) with their exact counterparts given by (3.2) and saw that, except for certain noncritical regions in the  $uv$  plane, the classical cumulative probability distribution for  $\chi^2$  was adequate to serve as a base for our probability ellipses in the trinomial skill charts. We now discuss the construction of these tables for the benefit of those who may wish to explore analogous skill chart constructions for values of  $n$  and  $a_0, a_1, a_2$  not specifically covered in this study.

#### A. Table A

One of the motivations of this calculation was simple curiosity: to see what the probability was for each of the 5050 possible triples  $(u,v,w)$  (ranging from  $(0, 0, 99)$  to  $(99, 0, 0)$ ) on the triangular scoring surface depicted in §3. Accordingly a computer was instructed to find  $p(u,v,w)$  via (3.2) to five significant figures for the tercile case:  $a_0=1/3, a_1=4/9, a_2=2/9, n=99$ . It turned out that many of the triples with low  $u$  values ( $\leq 14$ ) and high  $u$  values ( $\geq 54$ ) had probabilities far below  $10^{-5}$ . Removing these from the computed list, we were left with 2644 triples whose probabilities or associated cumulative probabilities were  $10^{-5}$  or greater. The range of these 2644 triples may be seen in graphic form in Fig 25, or directly in Table A, which begins with the triple  $(14,52,33)$  and ends with  $(54,35,10)$ . The triples in Table A are arranged in 'alphabetical' order and may be visualized as progressing through the  $uv$  plane as shown in Fig 25. Along with  $(u,v,w)$  are given their  $\chi^2$  values (in the column marked 'X2'), their probabilities (marked 'P(A)'), and their cumulative probabilities (marked 'CUM P(A)'). In order to understand the connections with later tables, we summarize the present calculations as follows, using the column headings:

TABLE A:

(u,v,w)	$\chi^2$	P(A)	CUM P(A)
(ordered)	(computed)	(computed)	(computed from P(A))


yields

As we progress through Table A, we observe the  $\chi^2$  values dipping in value, reaching a minimum, then rising again, over and over again. This may be explained graphically by looking at Fig 6 and imagining the paths taken through its domain as indicated schematically in Fig 25. As we start with (14,52,33) and move along the trajectory suggested in Fig 25, and at the same time keep an eye on the values of P(A), we see that CUM P(A) builds slowly, being fed invisibly by P(A) until, finally, at triple (23,38,38) the triples have probabilities larger than  $10^{-5}$ , and which go on to swell to a maximum at (23,51,25) and then decrease down to  $10^{-5}$  again at (23,63,13). All of this can be followed in imagination on Fig 25 by visualizing a probability haystack centered on (33,44) in the uv plane. Again and again the ordered triples (u,v,w) in Table A slice through the haystack, taking increasingly meatier chunks of probability as the vertical traverses in Fig 25 get closer to the u=33 slice. As this slice is traversed (see p(15) of Table A) we finally attain the maximum value of p(u,v,w) in the entire table at the average point (33,44,22), namely  $p(33,44,22) = .00880$ . At this point, as the cumulative probability tally shows, we have accumulated half of the total probability mass. After this, the slices cut through the lower slopes of the probability haystack, decreasing steadily in content until eventually, as the traverse of slice u=54 is made, the final readable contributions to the total mass are made.

B. Table B

For this table we ordered the  $\chi^2$  values, encountered in Table A, in increasing order. As these  $\chi^2$  values were ordered we simply carried along the associated triples  $(u,v,w)$  and  $P(A)$  values. The net result was a shuffled set of triples and probabilities. From the latter, as we went along, we added them up and formed CUM  $P(B)$ :

TABLE B:

$(u,v,w)$ (shuffled)	$\chi^2$ (ordered)	$P(A)$ (shuffled)	CUM $P(B)$ (computed from shuffled $P(A)$ )
			yields

The net result, CUM  $P(B)$ , could be visualized as an 'integration' of  $P(A)$  using a polar coordinate frame with  $(33,44,22)$  as center. As we progressed from smaller to larger  $\chi^2$  values we were sweeping up  $P(A)$  values in ever larger (essentially elliptical) regions about  $(33,44,22)$ , and adding them together. Fig 24 shows the 50% ellipse enclosing about 79 points. These 79 points are represented by the first 79 entries of Table B from  $(33,44,22)$  to  $(31,41,27)$  at which the total probability mass accumulated was .50206. The  $\chi^2$  'radius' at this point is 1.4621. In this way we were able to associate to each  $\chi^2$  its *exact* associated cumulative probability. This was the primary purpose of Table B. By the time we had moved out to  $\chi^2 = 76.0909$ , we had essentially accumulated all probability mass (to within  $10^{-5}$ ), and could have truncated the table there. The region covered by the associated ellipse may be estimated from Figs 6 and 25. See in particular the points on Fig 25 for  $\chi^2$  near 75, 76.

C. Table C

This table is Table B now with ordered triples for easy look up of CUM  $P(B)$

at each (u,v,w):

TABLE C


(u,v,w) (ordered)	X2  (as in Table A)	P(A)	CUM P(C)  (shuffled CUM P(B))
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D. Table D

To see how well the  $\chi^2$ -ellipses (to be constructed below) embraced the accumulating probability mass as we swept radially outward from the center (average) point (33,44,22), we returned to Table A and arranged P(A) in *decreasing* order. In this way we nibbled outward from the center of the haystack, accumulating probability in a natural way, going along the 'true' contours of the *discrete* haystack:

TABLE D

(u,v,w) (shuffled)	X2  (shuffled)	P(A)  (decreasing order)	CUM P(C)  (computed from decreasing order of P(A))
-----------------------	----------------------	-----------------------------------	--


  
 yields

To see what we had, we immediately made from this:

E. Table E

(u,v,w) (ordered)	$\chi^2$	P(A)	CUM P(E) (shuffled CUM P(D))
(as in Table A)			

A spot check was made at several points (u,v,w,) in the uv plane to see how well the cumulative probabilities agreed in Tables C and E. This would give a check on how well the  $\chi^2$  contours could describe the enclosed probability mass. The reader is invited to do the same. To start him off, consider the following selection of points

		CUM P(E)	CUM P(C)
a)	(33, 44, 22)	.00880	.00880
b)	(38, 40, 21)	.44133	.45115
c)	(40, 39, 20)	.65669	.66549
d)	(44, 36, 19)	.92697	.93879
e)	(48, 33, 18)	.99199	.99438

These points are shown on Fig 6 radiating outward from the origin. The agreement in cumulative probabilities is within one or two percent. Other checks along different lines show that we may use the  $\chi^2$  value as a radial index in terms of which, within a few percent, we may characterize the probability mass within the  $\chi^2$ =constant elliptical contour. *This then supplied the rigorous basis for the nested elliptical contours in the skill score charts of this study.* Any further constructions wishing to use smooth elliptical contours to summarize constant- $\chi^2$  regions of given probability mass must satisfactorily pass this test. Otherwise the exact constant- $\chi^2$  contours, which will likely be somewhat irregular, must be found by detailed plotting.



F. Table EXP

As a matter of simple curiosity we wanted to see how closely the  $\chi^2$  distribution (5.5) approximated the exact trinomial probabilities yielded by (3.2). The form of (5.5) for the terceled trinomial case is obtained by setting  $r=3$ , resulting in

$$T_2(\chi^2)d(\chi^2) = \frac{1}{2} e^{-\frac{1}{2}\chi^2} d(\chi^2) \quad , \quad (7.1)$$

a simple exponential in the variable  $\chi^2$ . How well does (7.1) describe the present state of affairs? In Fig 23 we show a plot of the exact values of  $p(u,v,w)$  for various  $\chi^2$  values. For example, for  $\chi^2=0$  we have from Table B the probability of  $P(33,33,22)$  as .00880, and is shown on Fig 23. For  $\chi^2 \cong 1-13$ , there are several triples associated with each value (cf. e.g.,  $\chi^2 = 1.0227$ ). The range of probabilities associated with each  $\chi^2$  is indicated by the vertical bar on Fig 23. This points up the important theoretical fact that  $T_2(\chi^2)$  does not account for the multiple-valuedness of the exact  $\chi^2$  relation defined by Table B. Moreover, a plot of the exponential in (7.1) in Fig 23 does not coincide with the visually-fit exponential going through the mass of points from Table B.

To see how well the *cumulative* probabilities were given by (7.1), the computer was instructed to find

$$(\text{CUM EXP})_n \equiv \frac{1}{2} \sum_{i=1}^n \exp \left[ \frac{-A_i}{2} \right] \Delta A_i, \quad n \geq 1 \quad (7.2)$$

$$A_i = \chi_i^2 = (X2)_i$$

where  $n$  denotes the row of Table B. Here  $\chi_i^2$  is the ordered  $\chi^2$  entry in row  $i$ , and  $\Delta A_i = A_i - A_{i-1}$ , with  $A_0=0$ . The listing below compares CUM  $P(B)$  with (CUM EXP) as found in (7.2), which simulates the discrete indefinite integral of (7.1).

$\chi^2$	CUM P(B)	CUM EXP
0	.00880	.00000
.0530	.02593	.02582
.1667	.06787-.07610	.07861
.2121	.09999-.10797	.09917
.3030	.14672-.15419	.13882
.5303	.23229-.23892	.22986
1.0227	.38958-.40544	.39524
1.5000	.51474-.52730	.52025
2.0076	.62822-.63176	.62341
3.0303	.78191-.78374	.76761
4.0530	.86759-.86883	.85401
5.0303	.92268-.92333	.90402
6.0000	.95200-.95343	.93455
7.0227	.96993-.97076	.95408
8.0076	.98150-.98167	.96551
9.0000	.98916-.98944	.97250
10.0076	.99351-.99360	.97682

This shows that the cumulative probabilities of  $\chi^2$  in the third column, as given by (7.1)-(7.2) are reasonably good approximations to the exact values. Strictly speaking, as we saw in Fig 23, there is no one triple associated with a  $\chi^2$  value, but actually several. Hence the exact displayed range of values of CUM P(B) for each  $\chi^2$ . A similar comparison with CUM P(E) is possible, and shows the same degree of close agreement with CUM EXP. This indicates that for rough practical purposes we can use tables B, C, E, EXP interchangeably when assigning probabilities to  $\chi^2$ . However, the exact table for this purpose is B or C. Table A is our basic table from which our numerical knowledge of  $p(u,v,w)$  springs.

### 8. Construction of the Skill Charts

The elliptical contours in the various figures in this study (as justified by the above results on Table C and Table E) may be found analytically as follows. Imagine the set of all points  $(u,v,w)$  in the scoring plane (cf diag. in §3) with a given fixed  $\chi^2$  value. Thus we imagine all  $(u,v,w)$  in the plane such that

$$\frac{(u-\bar{u})^2}{\bar{u}} + \frac{(v-\bar{v})^2}{\bar{v}} + \frac{(w-\bar{w})^2}{\bar{w}} = \chi^2 \quad (8.1)$$

where  $\bar{u} = na_0$ ,  $\bar{v} = na_1$ ,  $\bar{w} = na_2$

and  $a_0, a_1, a_2$  are defined in §3. Since

$$u + v + w = n \quad (8.2)$$

there is a corresponding set of points  $(u,v)$  in the  $uv$  plane having the same constant  $\chi^2$  value. Using (8.2) in (8.1) and solving for  $v$  as a function of  $u$ , we find

$$v = \frac{-\bar{v}}{\bar{v}+\bar{w}} \cdot (u-\bar{u}) + \bar{v} \pm b^{-1} \left\{ (1-ab)(u-\bar{u})^2 + \bar{w}b\chi^2 \right\}^{1/2} \quad (8.3)$$

where  $a = 1+(\bar{w}/\bar{u})$ ,  $b = 1+(\bar{w}/\bar{v})$

The plus sign describes the upper half, the minus sign the lower half of an ellipse centered on the straight line defined by

$$v = \frac{-\bar{v}}{\bar{v}+\bar{w}} \cdot (u-\bar{u}) + \bar{v} \quad (8.4)$$

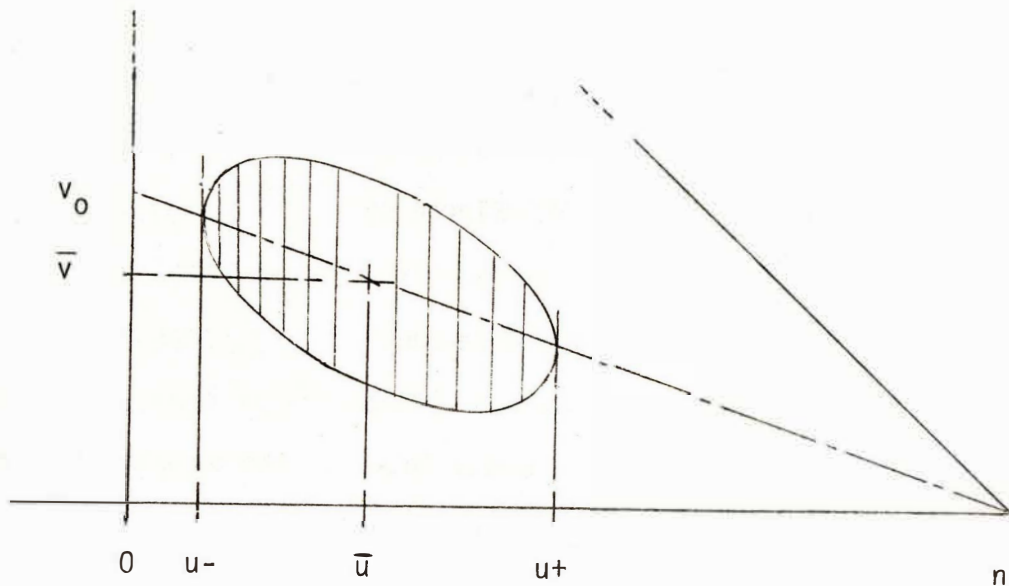
This is the straight line through the average point  $(\bar{u},\bar{v})$  and the point  $(n,0)$ , the

point of maximum skill in a trinomial diagram. The  $v$  intercept  $v_0$  occurs where  $u=0$ .

In the case of  $n=99$ ,  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ ,  $v_0$  is given by:

$$v_0 = \bar{v} + \left( \frac{a_0 a_1}{1-a_0} \right) n = 44 + 22 = 66 .$$

A general sketch of the ellipses in the trinomial setting is given below. It is seen that the ellipses are vertically sheared about the line given by (8.4).



The horizontal limits  $u_{\pm}$  of the ellipses in these diagrams are obtained by setting the term in curly brackets in (8.3) to zero and solving the resultant quadratic for  $u$ :

$$u_{\pm} = \bar{u} \pm \left\{ \frac{\bar{w} b \chi^2}{ab-1} \right\}^{1/2} \quad (8.5)$$

By construction, each vertical line ( $u=u_{\pm}$ ) is tangent to its ellipse where the line (8.4) pierces the ellipse. A study of Table A shows that the line (8.4) is the locus of maximum probabilities observed by making vertical (const  $u$ ) slices through the probability haystack based on the  $uv$  plane.

The formulations above serve also to define the ellipses in the signed error diagrams, such as in Fig 4. We simply make the following assignments in (8.1) and related equations and carry out the resultant forms of the calculations:

<u>Unsigned errors</u>		<u>Signed errors</u>
$u, \bar{u}$	pairs with	$v(-), \bar{v}(-)$
$v, \bar{v}$		$v(+), \bar{v}(+)$
$w, \bar{w}$		$u(0), \bar{u}(0)$
$a_0$		$a(-)$
$a_1$		$a(+)$
$a_2$		$a(0)$

Finally, to assign a probability to  $\chi^2$  values for the purpose of labeling the ellipses with confidence level values, we used Table B as follows: we ran down the table until we encountered cumulative probabilities .50, .80, .90, .95, .98, and .99, and then simply picked off the corresponding  $\chi^2$  values, which are summarized below.

Cum prob.	Assoc. $\chi^2$	From std. $\chi^2$ tables (2d. f.)
50%	1.4621	1.386
80	3.2121	3.219
90	4.6667	4.605
95	5.9394	5.991
98	7.8030	7.824
99	9.1667	9.210

It can be seen that our exact  $\chi^2$  values agree closely with those obtained from standard

(but approximate)  $\chi^2$  tables for two degrees of freedom. But this agreement is not generally known *a priori* for a given  $n$  and  $a_0, a_1, a_2$ . For this reason, the cautious chart designer would go through essentially the procedures described in §7, to find not only his own particular  $\chi^2$  values for (say) the above probabilities but also to see if the ellipses themselves are adequate to describe the regions in the  $uv$  plane with constant  $\chi^2$  (recall the concluding remarks of §7E).

Final checks on the accuracy of our computer graphics are made in Figs 24, 25. In particular, note how closely the analytically defined ellipses follow the discretely determined points with constant  $\chi^2$ .

## 9. Acknowledgments

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The computations of Tables A-E and EXP were done by Anthony Tubbs, as also were preliminary computer graphic versions of the skill diagrams. Ron Moe completed the computer graphic versions. The author programmed Tables 10-15. Karen Douglas programmed the Figures 6, 6a, 6b. Madge Sullivan compiled the original meteorologic data from which Tables 1, 2, 5, 6 were made. Eleanor Preisendorfer aided in operating the stochasters C and D leading to Tables 3, 4, 7, 8. Grace Johnston typed the report. Finally, I am grateful to Tim Barnett for helpful discussions during the course of research, and Jerry Namias for supplying the initial inspiration and continued encouragement for the study.

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TABLE 1  
TERCILED TEMPERATURE  
FORECASTER A

	SEASON	$u(0)$ = $u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Wnt 74	42	13	0	13	24	20	44	37	20
2	Spr 74	27	19	5	24	28	20	48	47	25
3	Sum 74	30	30	11	41	21	7	28	51	18
4	Fal 74	44	15	5	20	28	7	35	43	12
5	Wnt 75	46	29	3	32	19	2	21	48	5
6	Spr 75	70	23	0	23	6	0	6	29	0
7	Sum 75	45	19	15	34	18	3	21	37	18
8	Fal 75	45	20	0	20	30	4	34	50	4
9	Wnt 76	23	8	1	9	40	27	67	48	28
10	Spr 76	30	30	5	35	23	11	34	53	16
11	Sum 76	43	41	6	47	8	1	9	49	7
12	Wnt 77	59	16	2	18	20	2	22	36	4
13	Spr 77	37	1	0	1	36	25	61	37	25
14	Sum 77	27	15	8	23	26	23	49	41	31

$$v(+)=v_1(+)+v_2(+)$$

$$v(-)=v_1(-)+v_2(-)$$

$$v=v_1(+)+v_1(-)$$

$$w=v_2(+)+v_2(-)$$

Forecaster's TEMPERATURE Average Scores

	$\hat{u}$	$\hat{v}$	s	m
A	40.5	43.3	14.9	73.7
B	36.1	48.4	16.4	77.4
C	31.3	46.7	8.4	88.7
D	33.6	42.1	6.0	88.7

Forecaster's PRECIPITATION Average Scores

	$\hat{u}$	$\hat{v}$	s	m
A	39.3	44.0	11.2	75.4
B	37.3	47.3	7.9	76.1
C	31.3	46.8	6.7	88.1
D	35.9	44.2	5.9	82.0



TABLE 2  
 TERCILED TEMPERATURE  
 FORECASTER B

	SEASON	$u(0)$ = $u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Wnt 74	29	31	1	32	23	15	38	54	16
2	Spr 74	38	9	0	9	31	21	52	40	21
3	Sum 74	62	20	0	20	16	1	17	36	1
4	Fal 74	19	26	22	48	21	11	32	47	33
5	Wnt 75	43	6	2	8	35	13	48	41	15
6	Spr 75	11	64	24	88	0	0	0	64	24
7	Sum 75	45	25	3	28	23	3	26	48	6
8	Fal 75	43	26	5	31	24	1	25	50	6
9	Wnt 76	33	14	1	15	44	7	51	58	8
10	Spr 76	45	26	3	29	24	1	25	50	4
11	Sum 76	47	25	13	38	13	1	14	38	14
12	Wnt 77	44	42	1	43	9	3	12	51	4
13	Spr 77	32	4	0	4	54	9	63	58	9
14	Sum 77	14	14	8	22	28	35	63	42	43

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = v_2(+) + v_2(-)$$

TABLE 3  
 TERCEILED TEMPERATURE  
 FORECASTER C (target: actual predictand)

	SEASON	$u(0)$ = u	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	v	w
1	Wnt 74	29	31	2	33	23	14	37	54	16
2	Spr 74	35	13	3	16	30	18	48	43	21
3	Sum 74	31	17	15	32	24	12	36	41	27
4	Fal 74	26	29	18	47	16	10	26	45	28
5	Wnt 75	31	23	4	27	32	9	41	55	13
6	Spr 75	34	31	21	52	13	0	13	44	21
7	Sum 75	30	25	15	40	20	9	29	45	24
8	Fal 75	41	16	11	27	26	5	31	42	16
9	Wnt 76	27	12	0	12	40	20	60	52	20
10	Spr 76	24	32	2	34	29	12	41	61	14
11	Sum 76	38	29	12	41	17	3	20	46	15
12	Wnt 77	38	31	15	46	13	2	15	44	17
13	Spr 77	29	10	4	14	26	30	56	36	34
14	Sum 77	25	15	8	23	31	20	51	46	28

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = v_2(+) + v_2(-)$$

TABLE 4  
 TERCILED TEMPERATURE

FORECASTER D (target: idealized predictand)

	SEASON	$u(0)$ = $u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Wnt 74	33	26	12	38	20	8	28	46	20
2	Spr 74	31	28	13	41	21	6	27	49	19
3	Sum 74	35	22	13	35	18	11	29	40	24
4	Fal 74	38	18	15	33	15	13	28	33	28
5	Wnt 75	35	24	11	35	20	9	29	44	20
6	Spr 75	33	24	15	39	21	6	27	45	21
7	Sum 75	33	19	9	28	25	13	38	44	22
8	Fal 75	36	26	11	37	18	8	26	44	19
9	Wnt 76	30	21	13	34	27	8	35	48	21
10	Spr 76	38	14	12	26	17	18	35	31	30
11	Sum 76	34	21	12	33	22	10	32	43	22
12	Wnt 77	34	24	16	40	13	12	25	37	28
13	Spr 77	32	20	14	34	21	12	33	41	26
14	Sum 77	28	22	8	30	22	19	41	44	27

$$v(+)=v_1(+)+v_2(+)$$

$$v(-)=v_1(-)+v_2(-)$$

$$v=v_1(+)+v_1(-)$$

$$w=v_2(+)+v_2(-)$$

TABLE 5  
 TERCELED PRECIPITATION  
 FORECASTER A

	SEASON	$u(0)$ = u	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	v	w
1	Sum 74	38	23	11	34	20	7	27	43	18
2	Fal 74	49	15	7	22	24	4	28	39	11
3	Wnt 75	46	11	2	13	25	15	40	36	17
4	Spr 75	40	24	11	35	23	1	24	47	12
5	Sum 75	38	24	8	32	25	4	29	49	12
6	Fal 75	21	33	17	50	17	11	28	50	28
7	Wnt 76	37	33	15	48	9	5	14	42	20
8	Spr 76	43	22	9	31	20	5	25	42	14
9	Sum 76	52	16	5	21	25	1	26	41	6
10	Wnt 77	45	27	16	43	10	1	11	37	17
11	Spr 77	25	36	12	48	24	2	26	60	14
12	Sum 77	37	22	10	32	20	10	30	42	20

$$v(+)=v_1(+)+v_2(+)$$

$$v(-)=v_1(-)+v_2(-)$$

$$v=v_1(+)+v_1(-)$$

$$w=v_2(+)+v_2(-)$$

TABLE 6  
 TERCILED PRECIPITATION  
 FORECASTER B

	SEASON	$u(0)$ = $u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Sum 74	40	32	10	42	15	2	17	47	12
2	Fal 74	34	31	18	49	15	1	16	46	19
3	Wnt 75	46	26	6	32	17	4	21	43	10
4	Spr 75	43	18	3	21	33	2	35	51	5
5	Sum 75	37	24	4	28	29	5	34	53	9
6	Fal 75	32	30	18	48	14	5	19	44	23
7	Wnt 76	35	35	17	52	11	1	12	46	18
8	Spr 76	31	19	27	46	18	4	22	37	31
9	Sum 76	32	30	10	40	23	4	27	53	14
10	Wnt 77	46	29	11	40	10	3	13	39	14
11	Spr 77	37	44	6	50	9	3	12	53	9
12	Sum 77	35	26	2	28	29	7	36	55	9

$$v(+)=v_1(+)+v_2(+)$$

$$v(-)=v_1(-)+v_2(-)$$

$$v=v_1(+)+v_1(-)$$

$$w=w_2(+)+v_2(-)$$

TABLE 7  
 TERCILED PRECIPITATION  
 FORECASTER C (target: actual predictand)

	SEASON	$u(0)$ = $u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Sum 74	28	33	13	46	19	6	25	52	19
2	Fal 74	33	19	15	35	19	13	32	38	28
3	Wnt 75	29	18	7	25	28	17	45	46	24
4	Spr 75	35	18	7	25	26	13	39	44	20
5	Sum 75	31	26	8	34	27	7	34	53	15
6	Fal 75	34	23	9	32	24	9	33	47	18
7	Wnt 76	27	19	20	39	24	9	33	43	29
8	Spr 76	27	25	21	46	21	5	26	46	26
9	Sum 76	36	29	11	40	16	7	23	45	18
10	Wnt 77	34	27	20	47	13	5	18	40	25
11	Spr 77	35	31	5	36	20	8	28	51	13
12	Sum 77	26	20	8	28	37	8	35	57	16

$$v(+) = v_1(+) + v_2(+)$$

$$v = v_1(+) + v_1(-)$$

$$v(-) = v_1(-) + v_2(-)$$

$$w = v_2(+) + v_2(-)$$

TABLE 8  
TERCILED PRECIPITATION

FORECASTER D (target: idealized predictand)

	SEASON	$u(0)$ = $u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Sum 74	34	23	7	30	22	13	35	45	20
2	Fal 74	39	15	13	28	17	15	32	32	28
3	Wnt 75	41	26	3	29	20	9	29	46	12
4	Spr 75	34	25	7	32	24	9	33	49	16
5	Sum 75	35	20	10	30	23	11	34	43	21
6	Fal 75	34	25	15	40	20	5	25	45	20
7	Wnt 76	39	27	11	38	16	6	22	43	17
8	Spr 76	38	20	6	26	26	9	35	46	15
9	Sum 76	30	27	10	37	25	7	32	52	17
10	Wnt 77	38	20	14	34	21	6	27	41	20
11	Spr 77	33	18	11	29	23	14	37	41	25
12	Sum 77	36	23	10	33	24	6	30	47	16

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = v_2(+) + v_2(-)$$

TABLE 9

SKILL SCORES S  
AND CRITICAL RATIOS C vs u  
CASE OF  $n=99$ ,  $p=1/3$ ,  $\bar{u}=33$ ,  $\sigma=4.69$

<u>u = No. Correct Predictions (0-class errors)</u>	<u>Skill Score <math>S_{99} = (u-\bar{u})(n-\bar{u})^{-1}</math></u>	<u>Critical Ratio <math>C_{99} = (u-\bar{u})\sigma^{-1}</math></u>
15	-.273	
16	-.258	
17	-.242	
18	-.227	
19	-.212	
20	-.197	
21	-.182	
22	-.167	-2.34
	(1%)	
23	-.152	-2.13
24	-.136	-1.92
25	-.121	-1.70
	(5%)	
26	-.106	-1.49
27	-.091	-1.28
28	-.076	-1.07
29	-.061	-.853
30	-.045	-.640
31	-.030	-.426
32	-.015	-.213
	(50%)	
33	.000	.000
34	+.015	+.213
35	+.030	+.426
36	+.045	+.640
37	+.061	+.853
38	+.076	+1.07
39	+.091	+1.28
40	+.106	+1.49
	(95%)	
41	+.121	+1.70
42	+.136	+1.92
43	+.152	+2.13
	(99%)	
44	+.167	+2.34
45	+.182	
46	+.197	
47	+.212	
48	+.227	
49	+.242	
50	+.258	
51	+.273	



## Preface to Tables 10-15

These tables are included for the reader's convenience. In particular, 'K' can stand for u, v, or w, as the case may be, when specialized to the notation of this study. Thus, we have, for terceled data:

In Table 10	K corresponds to u, CUM P(K) to $Q_{99}(u)$ .	$P(K)$ to $p_{99}(u)$ , $0.3333333333 = 1/3$
In Table 11	K corresponds to v, CUM P(K) to $Q_{99}(v)$ ,	$P(K)$ to $p_{99}(v)$ , $.0.4444444444 = 4/9$
In Table 12	K corresponds to w, CUM P(K) to $Q_{99}(w)$ ,	$P(K)$ to $p_{99}(w)$ $0.2222222222 = 2/9$

Similarly, Tables 13, 14, 15 are for quintiled data, with K corresponding respectively to u, v, w, and

$$0.2000000000 = 1/5$$

$$0.3800000000 = 8/25$$

$$0.4800000000 = 12/25$$

Such tables are readily made up for other values of P and N.

TABLE 10

## BINOMIAL PROBABILITIES

$$P(K) = [N!/K!(N-K)!][P**K][(1-P)**(N-K)]$$

N= 99  
P= 0.3333333333

K	P(K)	CUM P(K)	1-CUM P(K)
14	0.00001	0.00001	0.99999
15	0.00002	0.00003	0.99997
16	0.00006	0.00010	0.99990
17	0.00016	0.00025	0.99975
18	0.00035	0.00061	0.99939
19	0.00075	0.00136	0.99864
20	0.00151	0.00287	0.99713
21	0.00284	0.00571	0.99429
22	0.00503	0.01074	0.98926
23	0.00842	0.01916	0.98084
24	0.01333	0.03249	0.96751
25	0.02000	0.05249	0.94751
26	0.02846	0.08095	0.91905
27	0.03848	0.11943	0.88057
28	0.04947	0.16890	0.83110
29	0.06056	0.22945	0.77055
30	0.07065	0.30010	0.69990
31	0.07862	0.37872	0.62128
32	0.08354	0.46226	0.53774
33	0.08480	0.54707	0.45293
34	0.08231	0.62938	0.37062
35	0.07643	0.70581	0.29419
36	0.06794	0.77375	0.22625
37	0.05784	0.83159	0.16841
38	0.04719	0.87877	0.12123
39	0.03690	0.91567	0.08433
40	0.02768	0.94335	0.05665
41	0.01991	0.96326	0.03674
42	0.01375	0.97701	0.02299
43	0.00911	0.98612	0.01388
44	0.00580	0.99192	0.00808
45	0.00354	0.99547	0.00453
46	0.00208	0.99755	0.00245
47	0.00117	0.99872	0.00128
48	0.00064	0.99936	0.00064
49	0.00033	0.99969	0.00031
50	0.00017	0.99985	0.00015
51	0.00008	0.99993	0.00007
52	0.00004	0.99997	0.00003
53	0.00002	0.99998	0.00002
54	0.00001	0.99999	0.00001

TABLE 11

## BINOMIAL PROBABILITIES

$$P(K) = [N!/K!(N-K)!][P**K][(1-P)**(N-K)]$$

N= 99

P= 0.4444444444

K	P(K)	CUM P(K)	1-CUM P(K)
23	0.00001	0.00001	0.99999
24	0.00002	0.00002	0.99998
25	0.00004	0.00006	0.99994
26	0.00008	0.00014	0.99986
27	0.00018	0.00032	0.99968
28	0.00037	0.00069	0.99931
29	0.00073	0.00142	0.99858
30	0.00136	0.00278	0.99722
31	0.00242	0.00521	0.99479
32	0.00412	0.00933	0.99067
33	0.00669	0.01602	0.98398
34	0.01039	0.02641	0.97359
35	0.01544	0.04184	0.95816
36	0.02195	0.06379	0.93621
37	0.02990	0.09370	0.90630
38	0.03903	0.13273	0.86727
39	0.04884	0.18157	0.81843
40	0.05861	0.24018	0.75982
41	0.06747	0.30765	0.69235
42	0.07454	0.38219	0.61781
43	0.07905	0.46123	0.53877
44	0.08048	0.54172	0.45828
45	0.07869	0.62041	0.37959
46	0.07390	0.69432	0.30568
47	0.06667	0.76099	0.23901
48	0.05778	0.81877	0.18123
49	0.04811	0.86688	0.13312
50	0.03849	0.90537	0.09463
51	0.02958	0.93496	0.06504
52	0.02185	0.95680	0.04320
53	0.01550	0.97230	0.02770
54	0.01056	0.98286	0.01714
55	0.00691	0.98978	0.01022
56	0.00435	0.99412	0.00588
57	0.00262	0.99674	0.00326
58	0.00152	0.99826	0.00174
59	0.00084	0.99911	0.00089
60	0.00045	0.99956	0.00044
61	0.00023	0.99979	0.00021
62	0.00011	0.99990	0.00010
63	0.00005	0.99996	0.00004
64	0.00002	0.99998	0.00002
65	0.00001	0.99999	0.00001

TABLE 12

## BINOMIAL PROBABILITIES

$$P(K) = [N! / K!(N-K)!] [P^K] [(1-P)^{(N-K)}]$$

N= 99

P= 0.2222222222

K	P(K)	CUM P(K)	1-CUM P(K)
6	0.00001	0.00001	0.99999
7	0.00004	0.00005	0.99995
8	0.00012	0.00016	0.99984
9	0.00034	0.00051	0.99949
10	0.00088	0.00139	0.99861
11	0.00204	0.00344	0.99656
12	0.00428	0.00772	0.99228
13	0.00819	0.01591	0.98409
14	0.01437	0.03028	0.96972
15	0.02327	0.05355	0.94645
16	0.03491	0.08846	0.91154
17	0.04869	0.13715	0.86285
18	0.06338	0.20052	0.79948
19	0.07719	0.27772	0.72228
20	0.08822	0.36594	0.63406
21	0.09482	0.46076	0.53924
22	0.09606	0.55682	0.44318
23	0.09188	0.64870	0.35130
24	0.08313	0.73183	0.26817
25	0.07125	0.80308	0.19692
26	0.05794	0.86102	0.13898
27	0.04476	0.90578	0.09422
28	0.03288	0.93867	0.06133
29	0.02300	0.96167	0.03833
30	0.01534	0.97700	0.02300
31	0.00975	0.98676	0.01324
32	0.00592	0.99268	0.00732
33	0.00343	0.99611	0.00389
34	0.00190	0.99802	0.00198
35	0.00101	0.99903	0.00097
36	0.00051	0.99954	0.00046
37	0.00025	0.99979	0.00021
38	0.00012	0.99991	0.00009
39	0.00005	0.99996	0.00004
40	0.00002	0.99998	0.00002
41	0.00001	0.99999	0.00001

TABLE 13

## BINOMIAL PROBABILITIES

$$P(K) = \frac{N!}{K!(N-K)!} [P^K] [(1-P)^{N-K}]$$

N= 99  
P= 0.2000000000

K	P(K)	CUM P(K)	1-CUM P(K)
5	0.00002	0.00002	0.99998
6	0.00007	0.00009	0.99991
7	0.00023	0.00032	0.99968
8	0.00067	0.00098	0.99902
9	0.00168	0.00267	0.99733
10	0.00378	0.00645	0.99355
11	0.00765	0.01410	0.98590
12	0.01403	0.02813	0.97187
13	0.02347	0.05160	0.94840
14	0.03605	0.08765	0.91235
15	0.05107	0.13871	0.86129
16	0.06702	0.20574	0.79426
17	0.08181	0.28755	0.71245
18	0.09317	0.38072	0.61928
19	0.09930	0.48002	0.51998
20	0.09930	0.57932	0.42068
21	0.09339	0.67271	0.32729
22	0.08278	0.75548	0.24452
23	0.06928	0.82476	0.17524
24	0.05485	0.87961	0.12039
25	0.04114	0.92075	0.07925
26	0.02927	0.95002	0.04998
27	0.01978	0.96980	0.03020
28	0.01272	0.98252	0.01748
29	0.00778	0.99030	0.00970
30	0.00454	0.99484	0.00516
31	0.00253	0.99737	0.00263
32	0.00134	0.99871	0.00129
33	0.00068	0.99939	0.00061
34	0.00033	0.99973	0.00027
35	0.00015	0.99988	0.00012
36	0.00007	0.99995	0.00005
37	0.00003	0.99998	0.00002
38	0.00001	0.99999	0.00001

TABLE 14

## BINOMIAL PROBABILITIES

$$P(K) = \frac{N!}{K!(N-K)!} [P^K] [(1-P)^{(N-K)}]$$

N= 99

P= 0.3200000000

K	P(K)	CUM P(K)	1-CUM P(K)
13	0.00001	0.00001	0.99999
14	0.00003	0.00004	0.99996
15	0.00007	0.00010	0.99990
16	0.00017	0.00028	0.99972
17	0.00039	0.00067	0.99933
18	0.00084	0.00151	0.99849
19	0.00169	0.00321	0.99679
20	0.00319	0.00639	0.99361
21	0.00564	0.01204	0.98796
22	0.00941	0.02145	0.97855
23	0.01483	0.03628	0.96372
24	0.02210	0.05839	0.94161.
25	0.03120	0.08959	0.91041
26	0.04179	0.13139	0.86861
27	0.05318	0.18456	0.81544
28	0.06435	0.24891	0.75109.
29	0.07414	0.32305	0.67695
30	0.08140	0.40445	0.59555
31	0.08527	0.48972	0.51028
32	0.08527	0.57498	0.42502
33	0.08147	0.65645	0.34355
34	0.07442	0.73087	0.26913
35	0.06504	0.79591	0.20409
36	0.05441	0.85032	0.14968
37	0.04360	0.89392	0.10608
38	0.03348	0.92740	0.07260
39	0.02464	0.95203	0.04797
40	0.01739	0.96943	0.03057
41	0.01178	0.98120	0.01880
42	0.00765	0.98886	0.01114
43	0.00477	0.99363	0.00637
44	0.00286	0.99649	0.00351
45	0.00164	0.99814	0.00186
46	0.00091	0.99905	0.00095
47	0.00048	0.99953	0.00047
48	0.00025	0.99977	0.00023
49	0.00012	0.99990	0.00010
50	0.00006	0.99995	0.00005
51	0.00003.	0.99998	0.00002
52	0.00001.	0.99999	0.00001

TABLE 15

## BINOMIAL PROBABILITIES

$$P(K) = [N!/K!(N-K)!][P**K][(1-P)**(N-K)]$$

N= 99

P= 0.4800000000

K	P(K)	CUM P(K)	1-CUM P(K)
27	0.00001	0.00001	0.99999
28	0.00003	0.00004	0.99996
29	0.00007	0.00011	0.99989
30	0.00014	0.00025	0.99975
31	0.00029	0.00054	0.99946
32	0.00058	0.00112	0.99888
33	0.00108	0.00220	0.99780
34	0.00193	0.00413	0.99587
35	0.00331	0.00744	0.99256
36	0.00543	0.01287	0.98713
37	0.00854	0.02142	0.97858
38	0.01286	0.03428	0.96572
39	0.01857	0.05285	0.94715
40	0.02571	0.07856	0.92144
41	0.03416	0.11272	0.88728
42	0.04354	0.15626	0.84374
43	0.05328	0.20954	0.79046
44	0.06259	0.27213	0.72787
45	0.07062	0.34275	0.65725
46	0.07652	0.41927	0.58073
47	0.07965	0.49893	0.50107
48	0.07965	0.57858	0.42142
49	0.07653	0.65510	0.34490
50	0.07064	0.72574	0.27426
51	0.06265	0.78839	0.21161
52	0.05338	0.84177	0.15823
53	0.04370	0.88547	0.11453
54	0.03436	0.91983	0.08017
55	0.02595	0.94578	0.05422
56	0.01882	0.96460	0.03540
57	0.01311	0.97771	0.02229
58	0.00876	0.98647	0.01353
59	0.00562	0.99209	0.00791
60	0.00346	0.99555	0.00445
61	0.00204	0.99759	0.00241
62	0.00115	0.99874	0.00126
63	0.00063	0.99937	0.00063
64	0.00033	0.99969	0.00031
65	0.00016	0.99986	0.00014
66	0.00008	0.99993	0.00007
67	0.00003	0.99997	0.00003
68	0.00002	0.99998	0.00002
69	0.00001	0.99999	0.00001

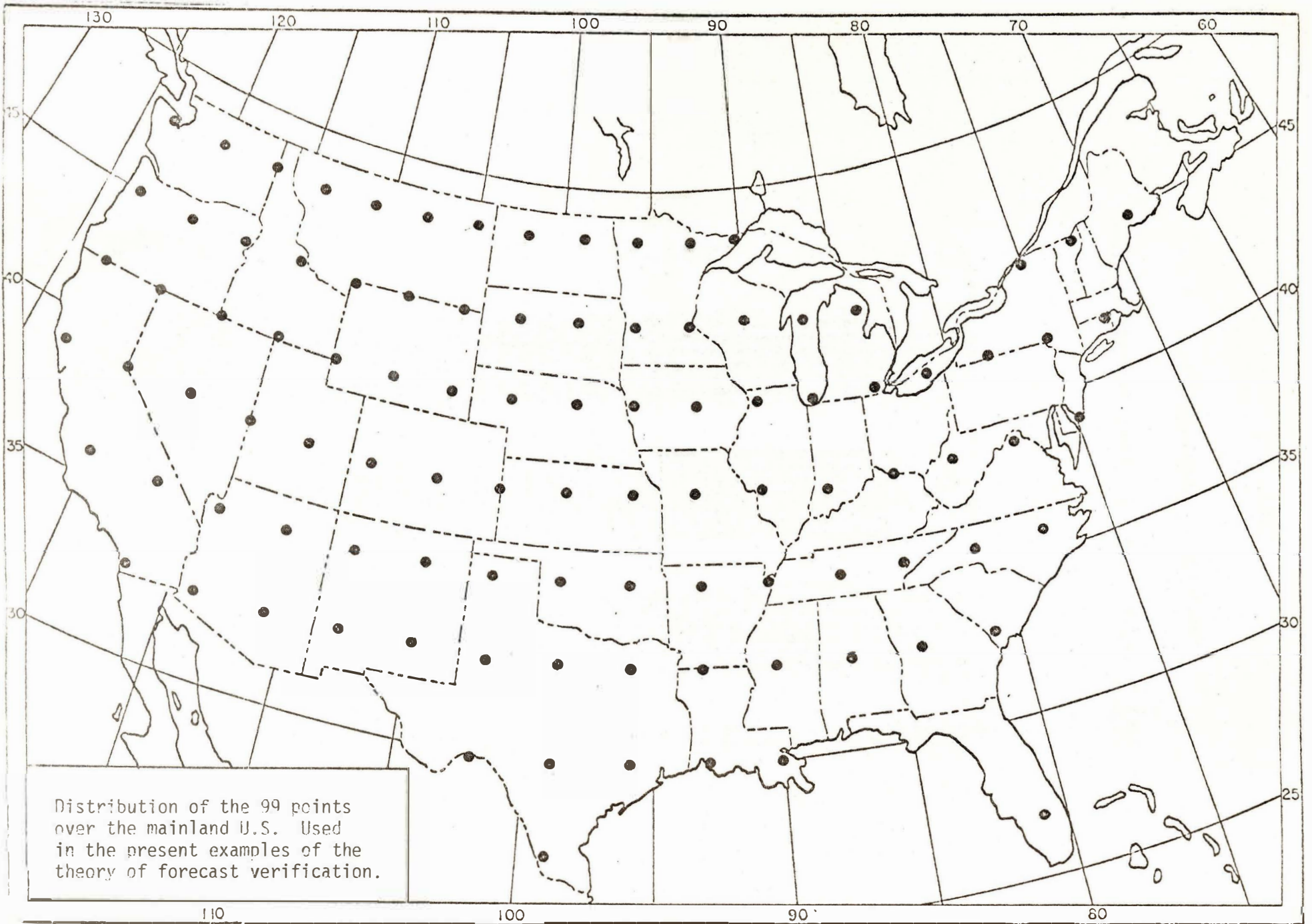


Figure 1



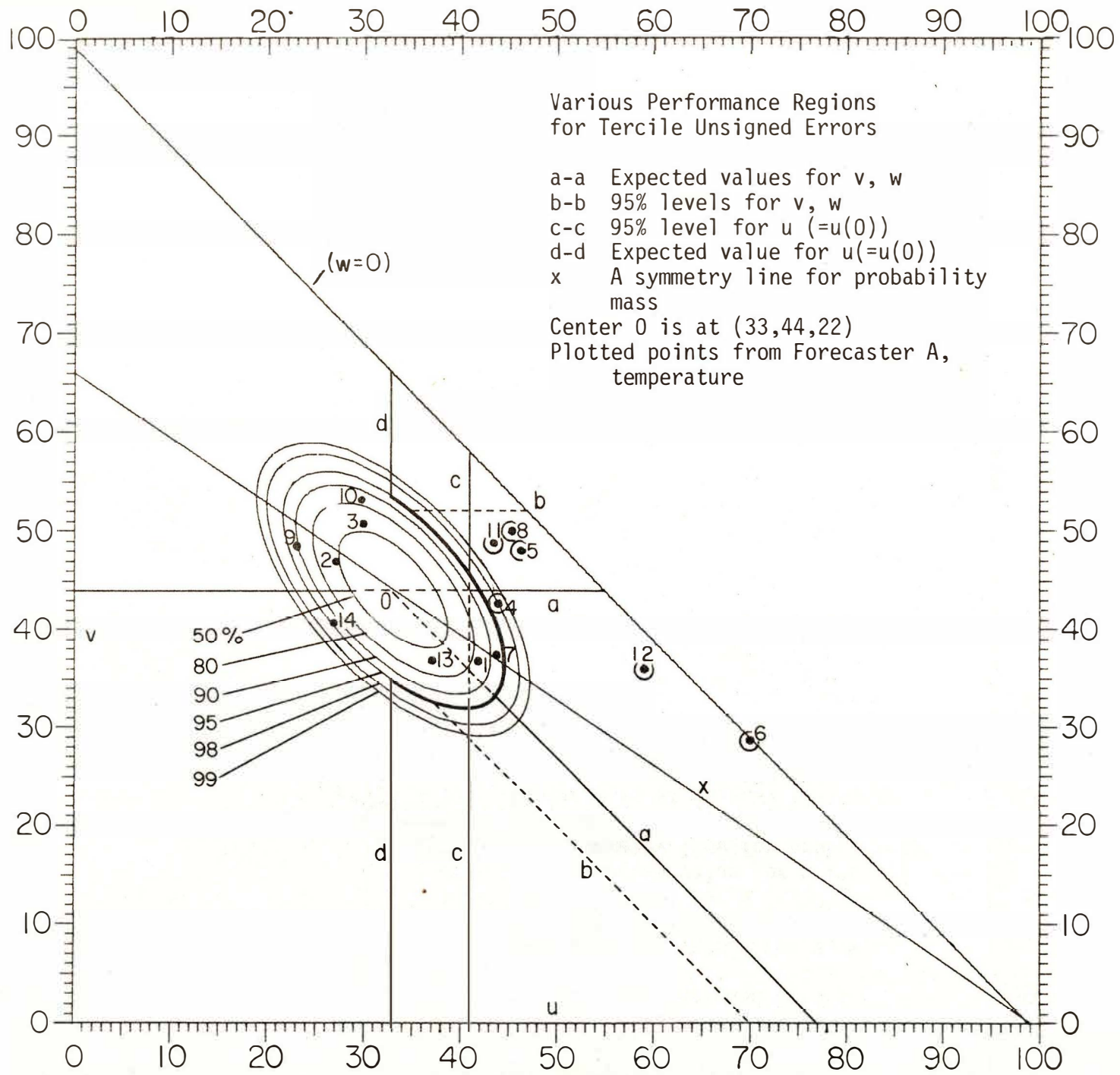


Figure 2

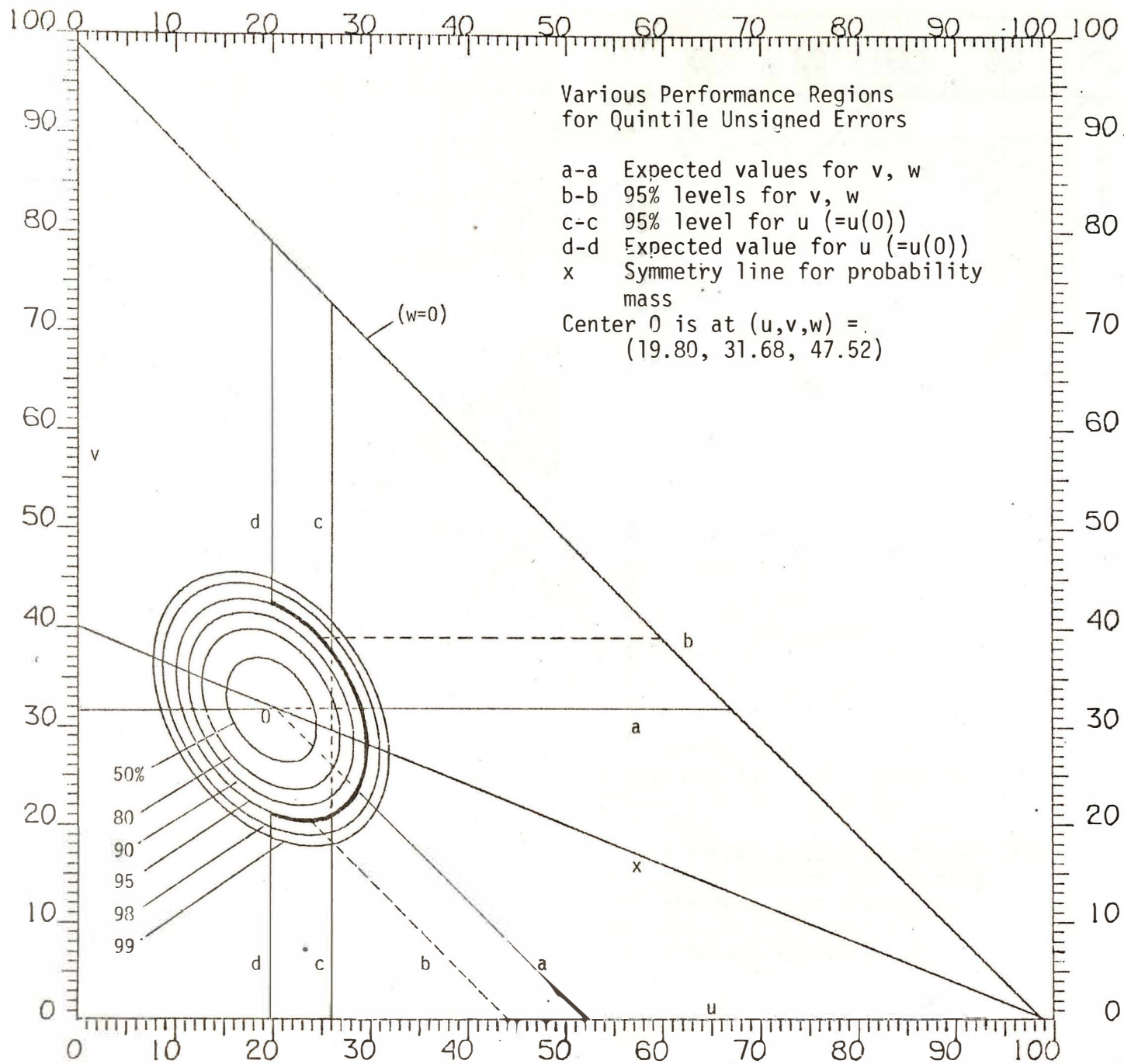


Figure 3

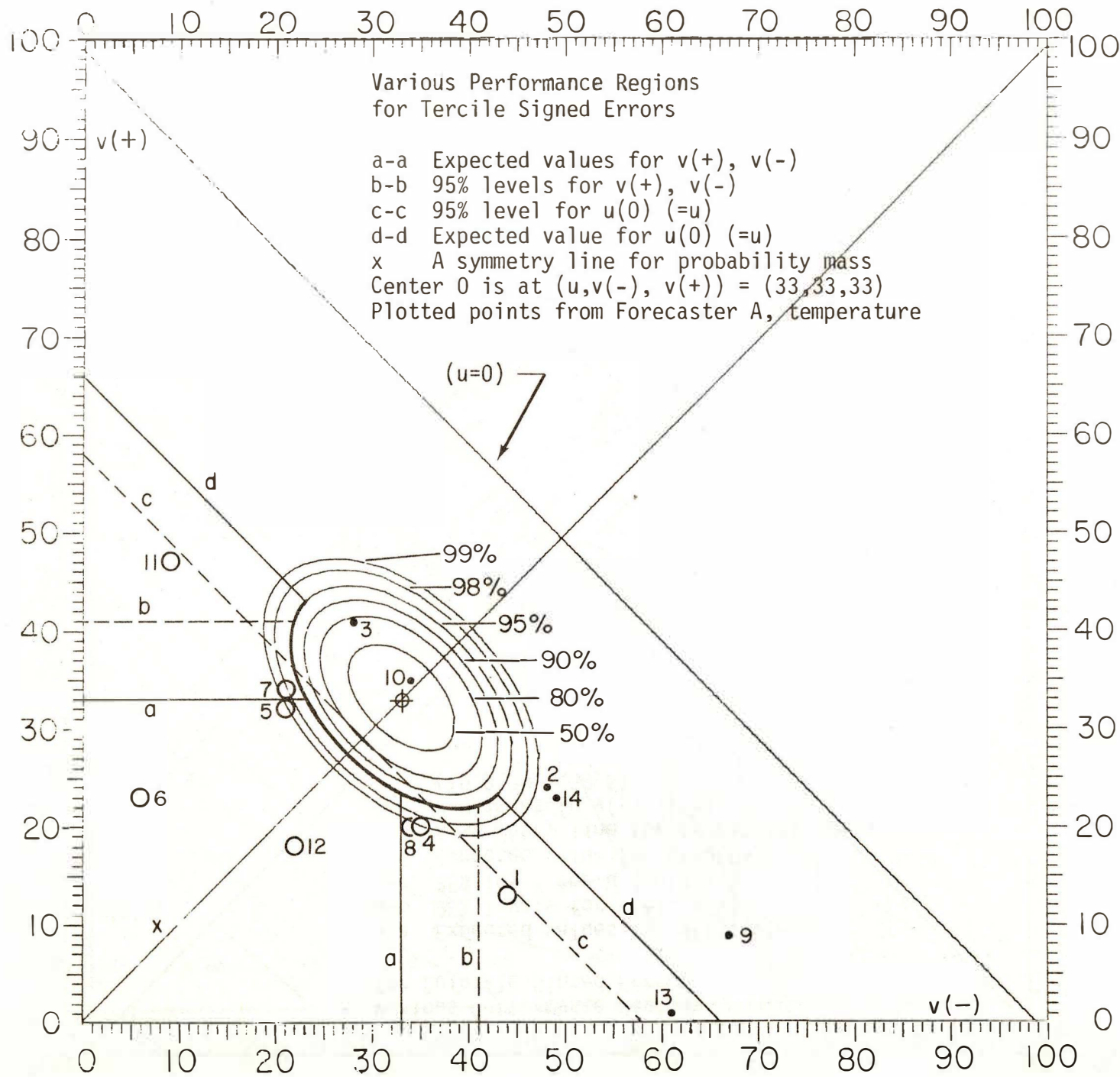


Figure 4

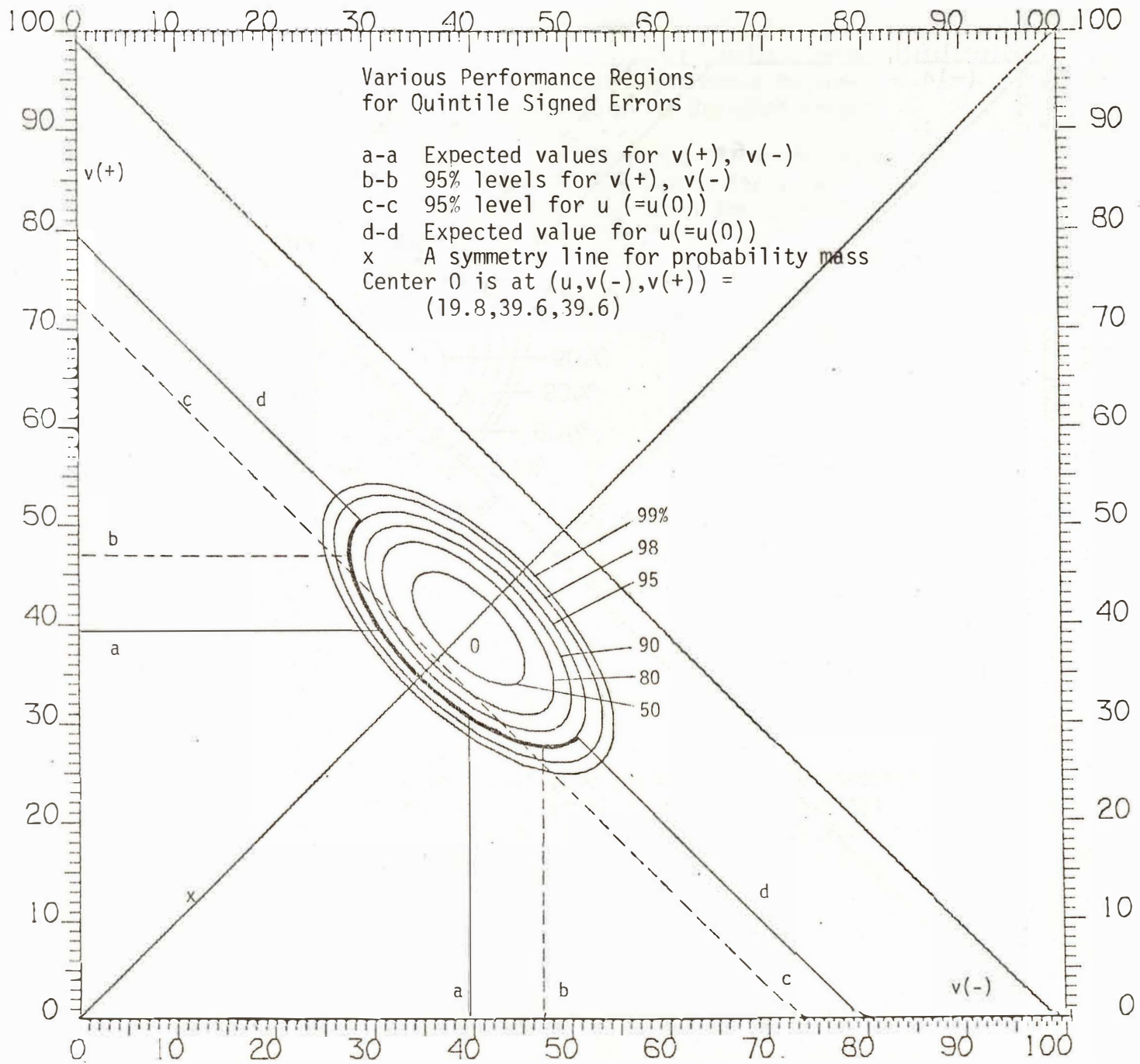


Figure 5

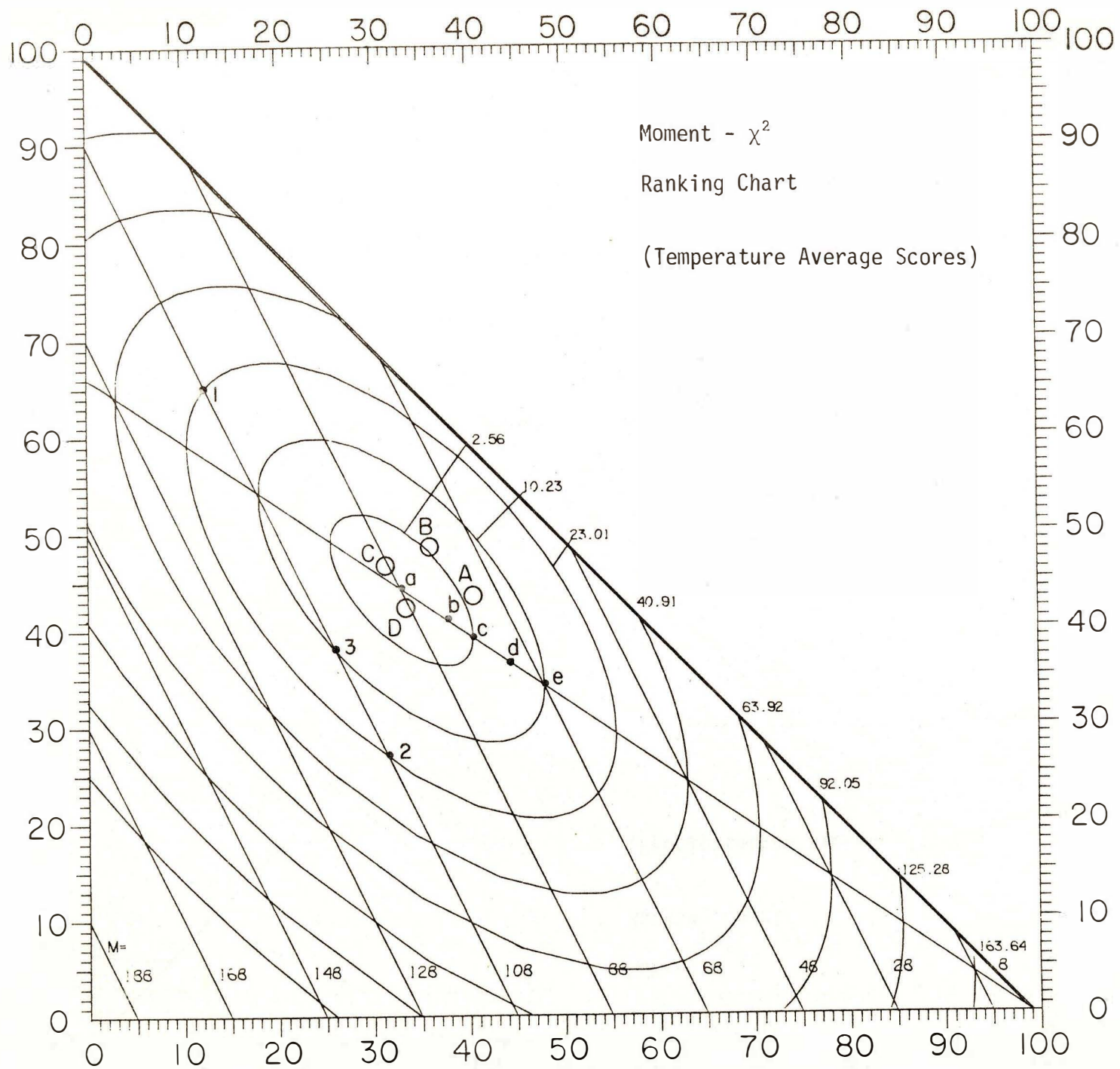


Figure 6

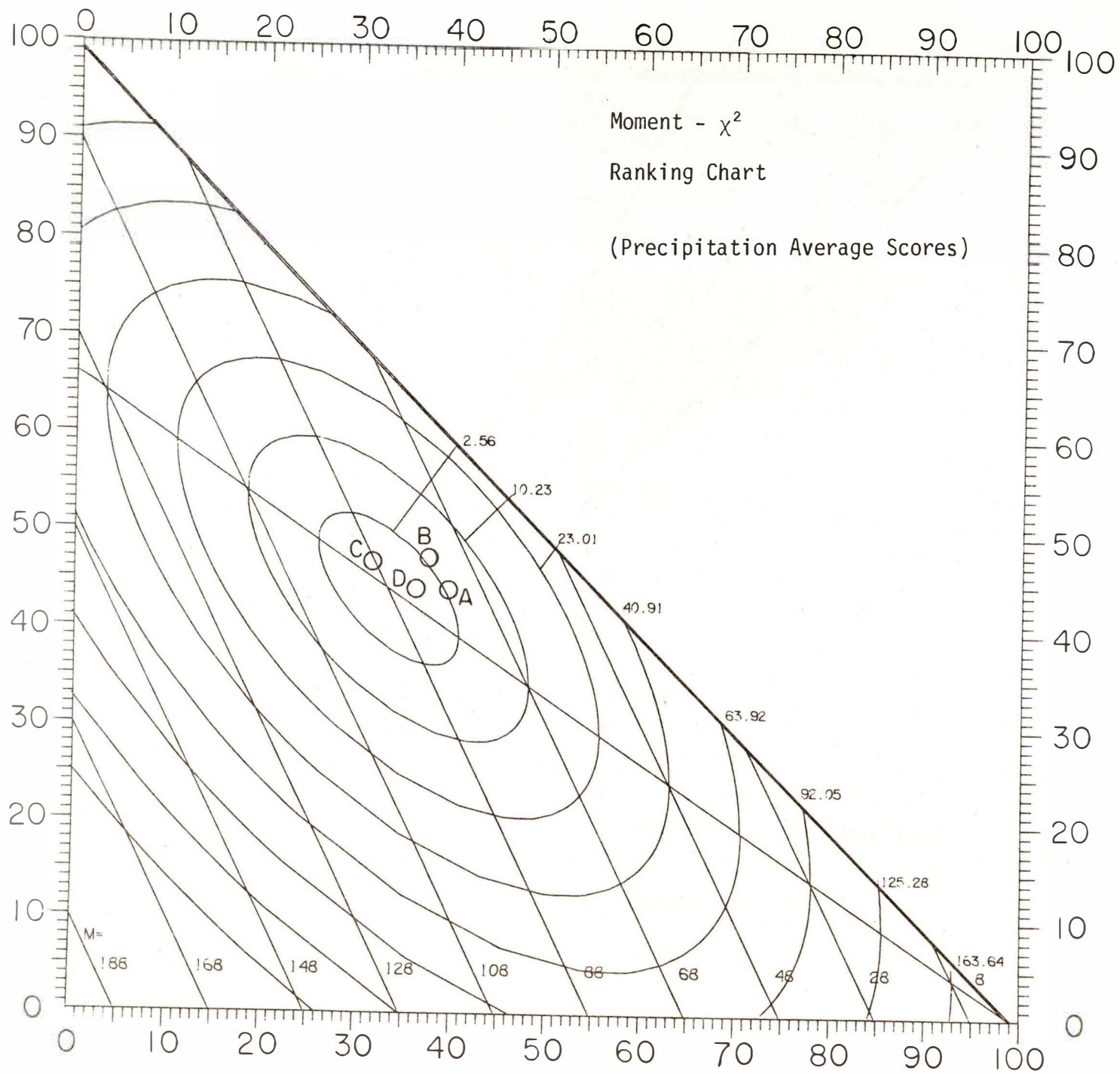


Figure 6a

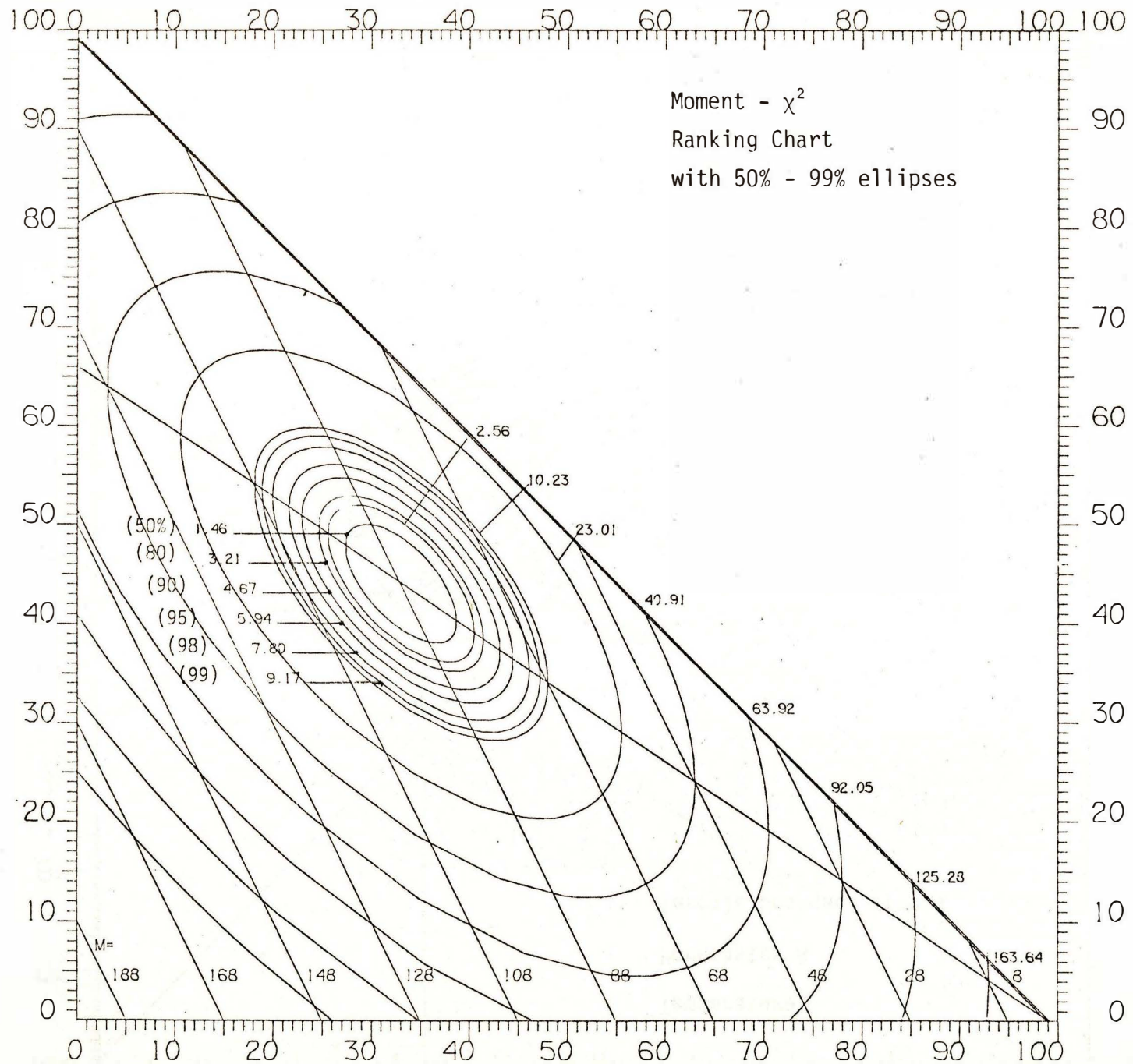


Figure 6b

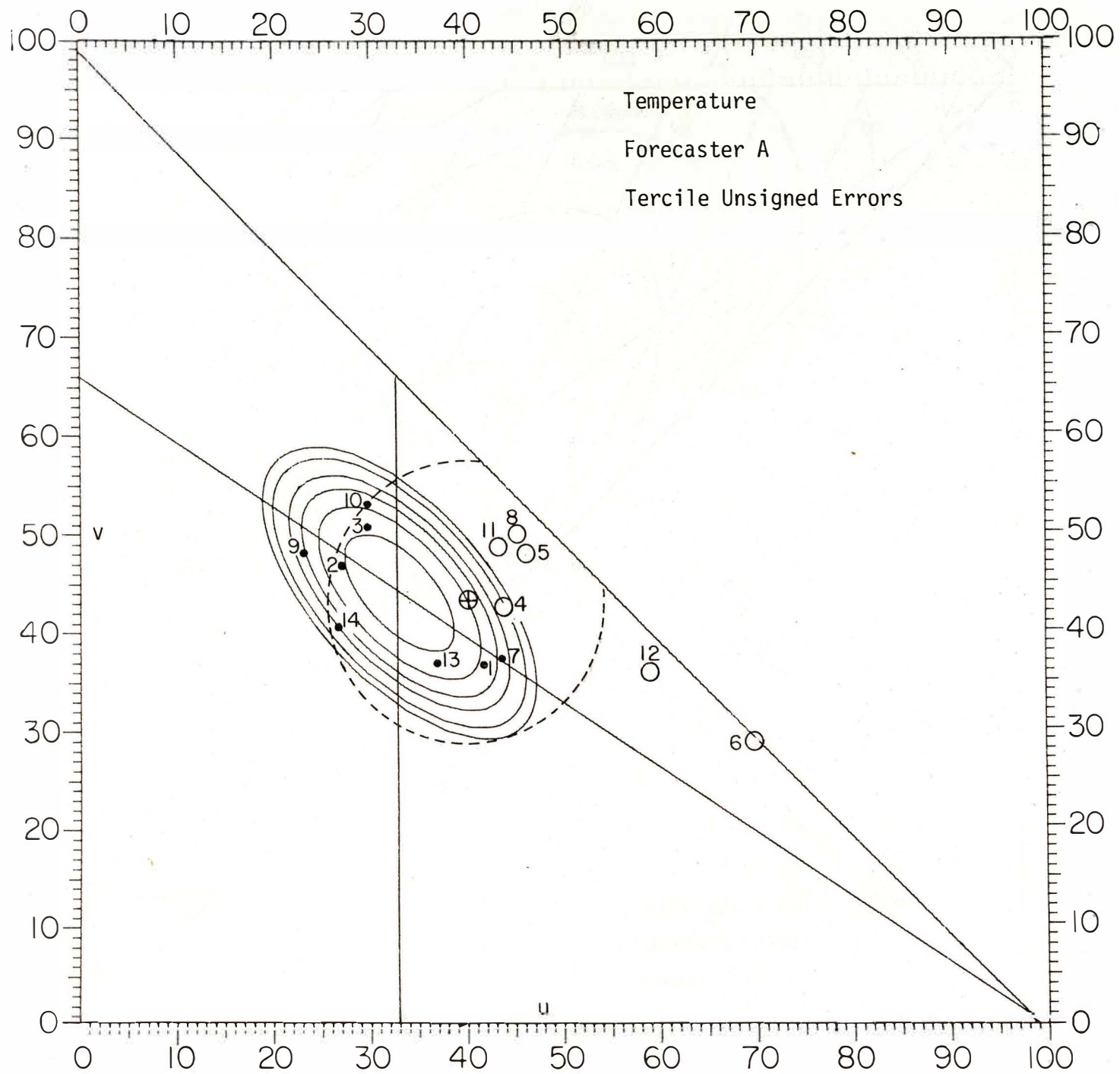


Figure 7



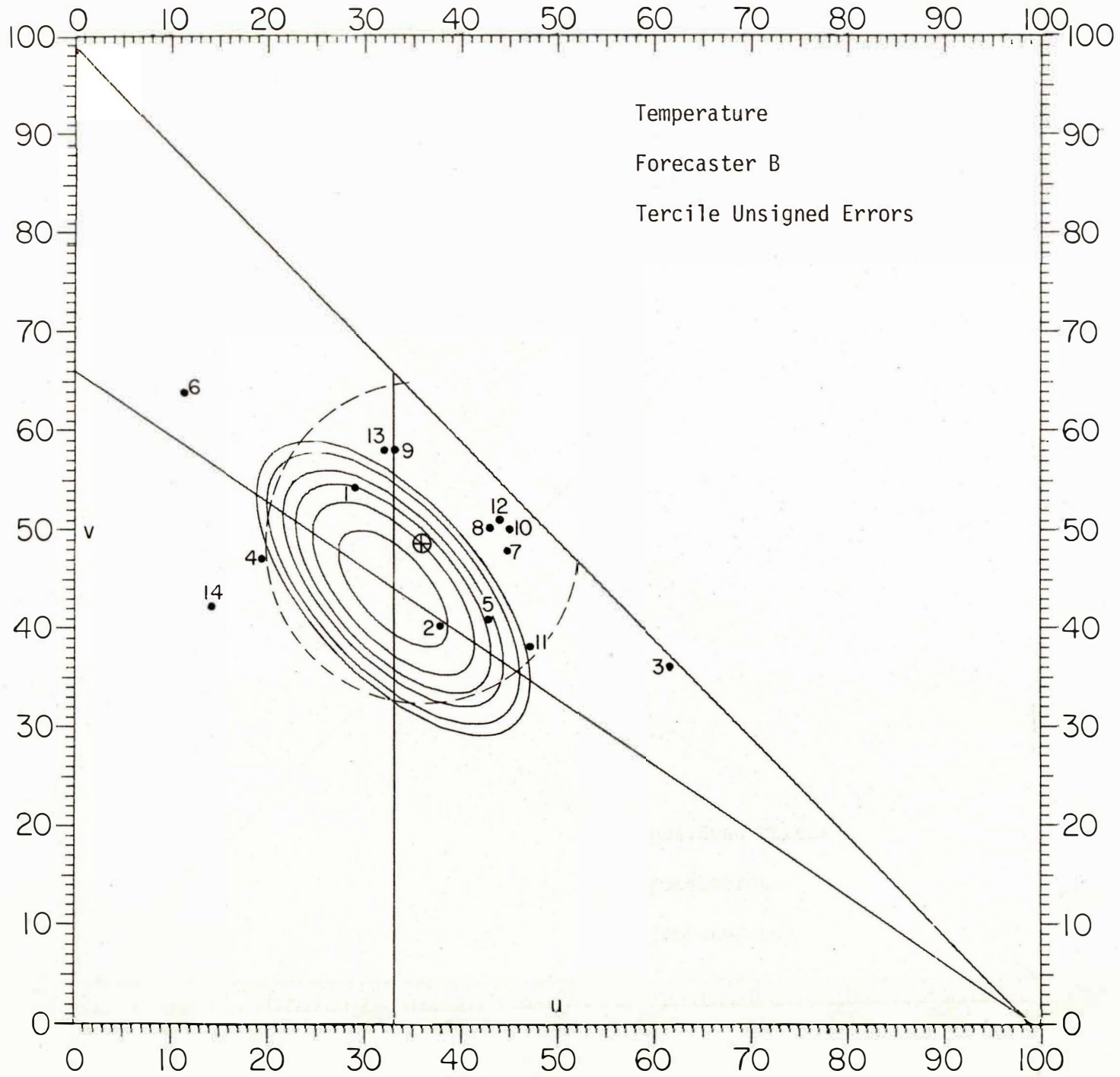


Figure 8

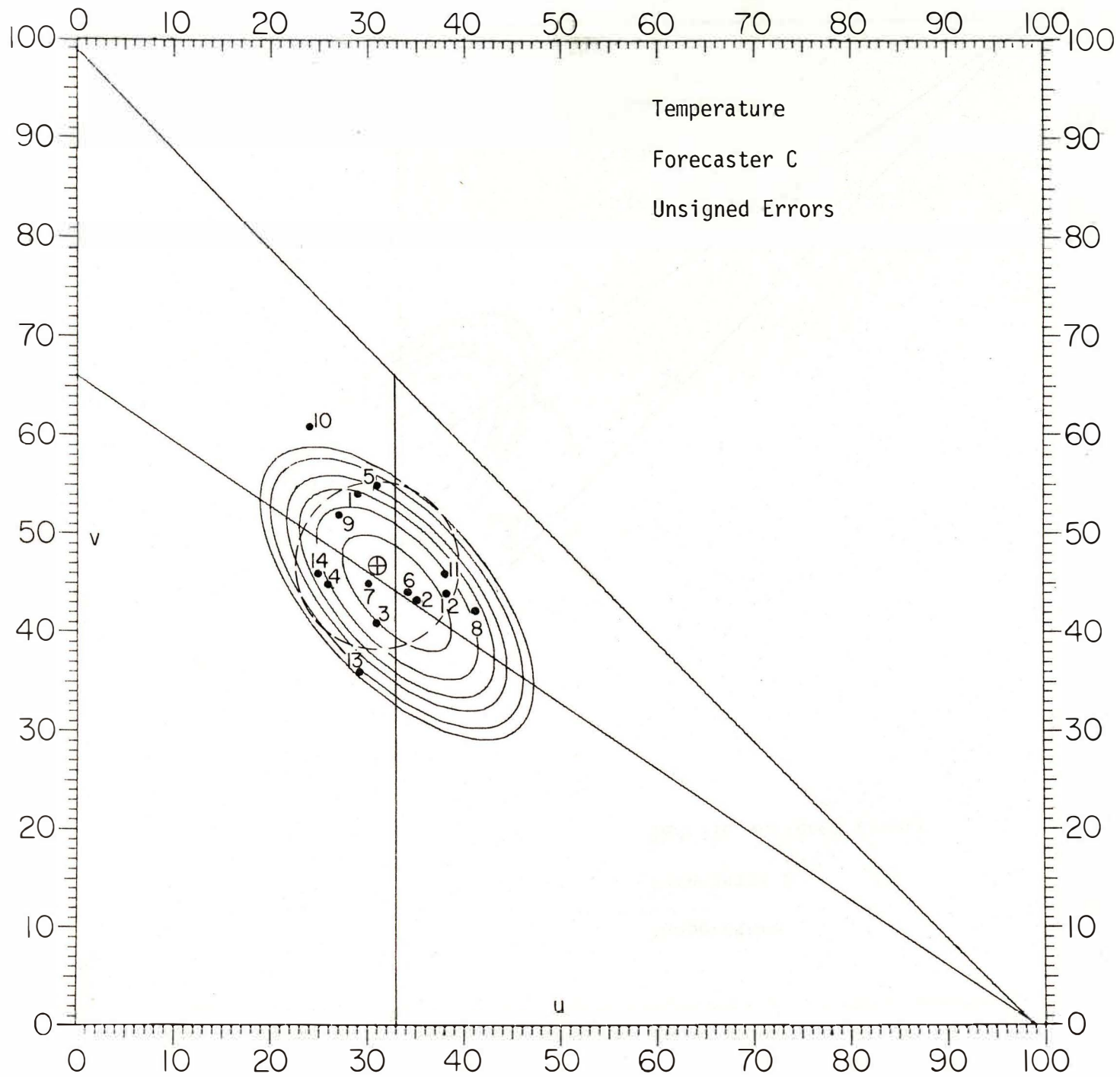


Figure 9

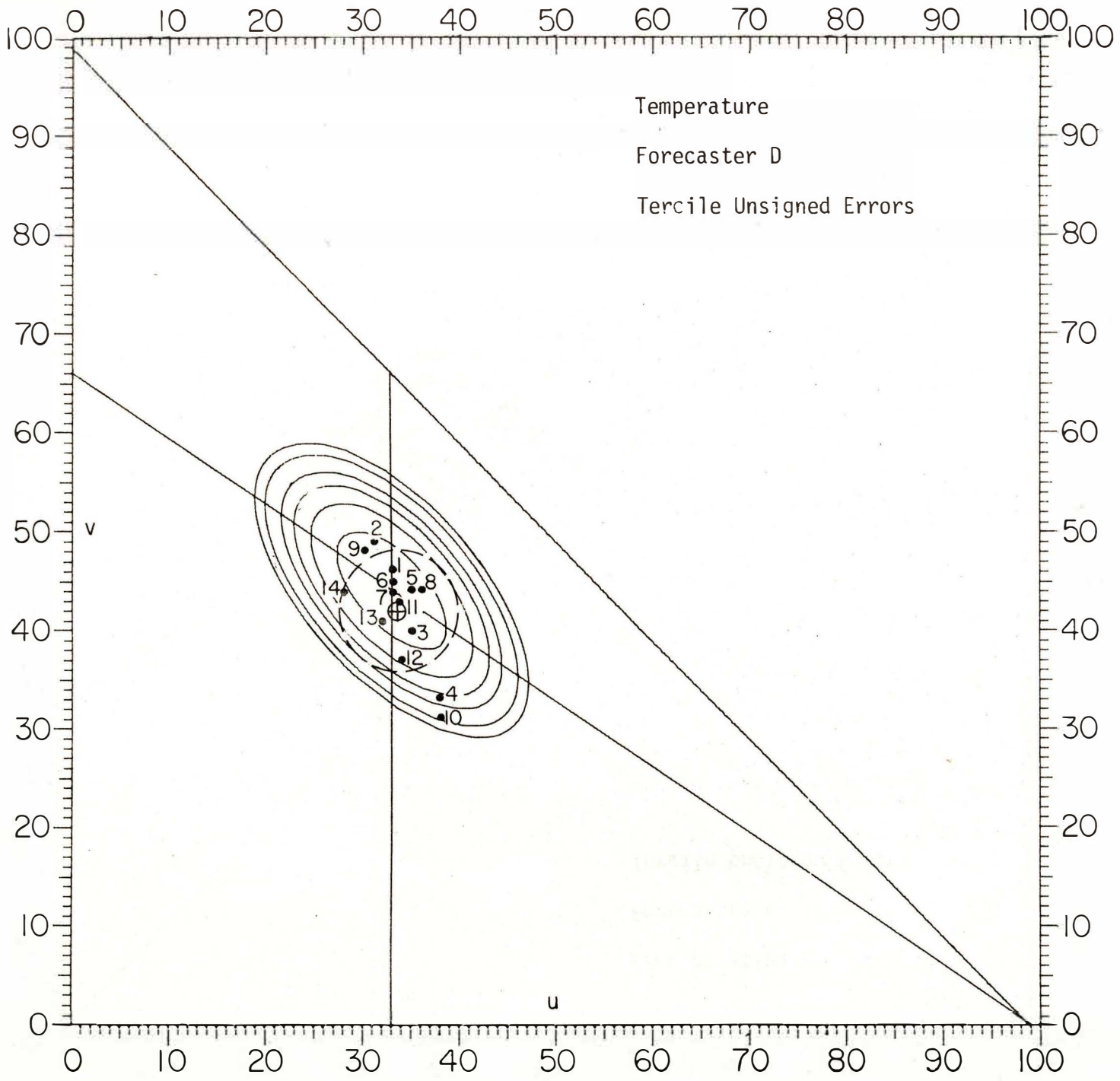


Figure 10

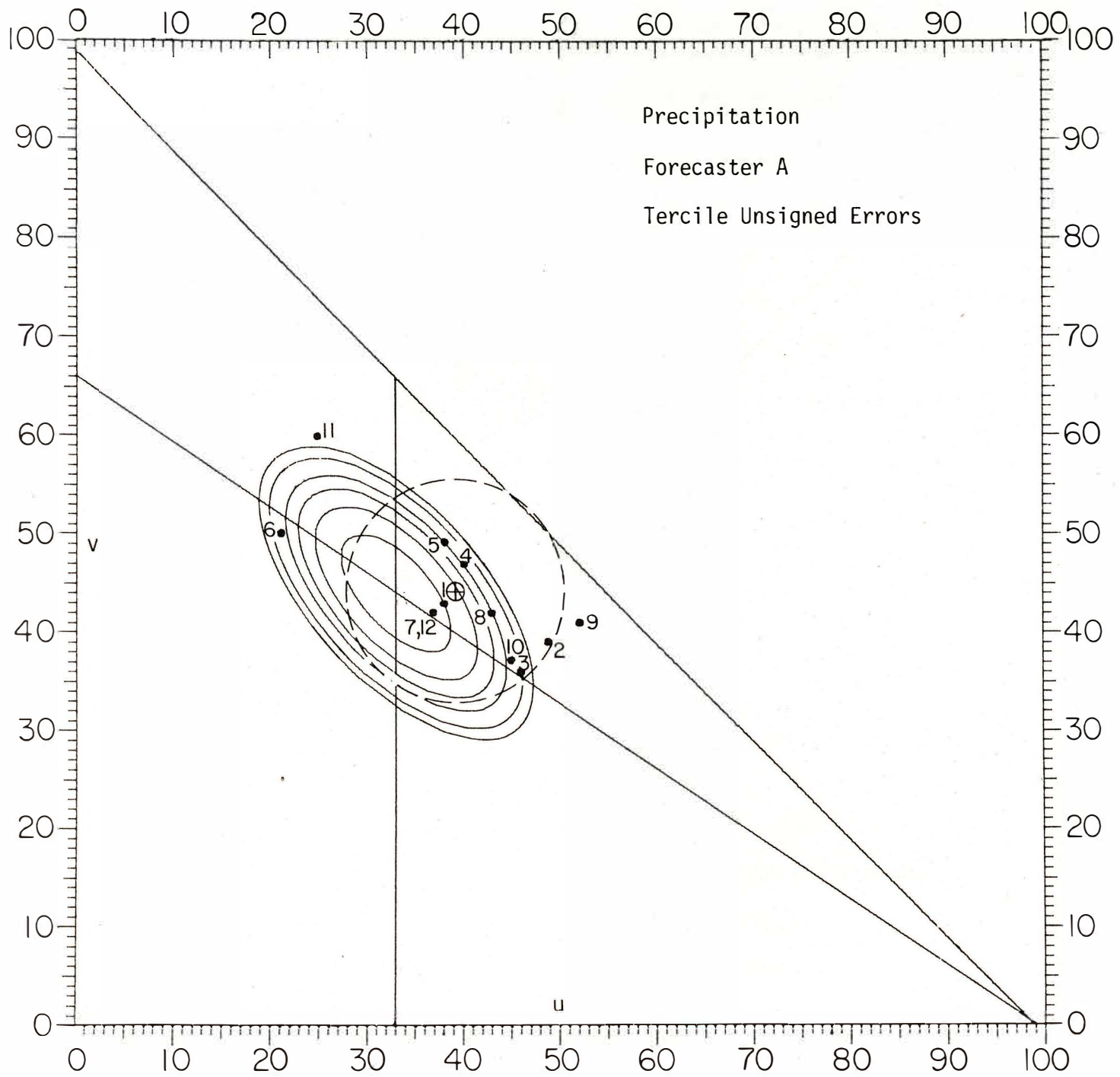


Figure 11

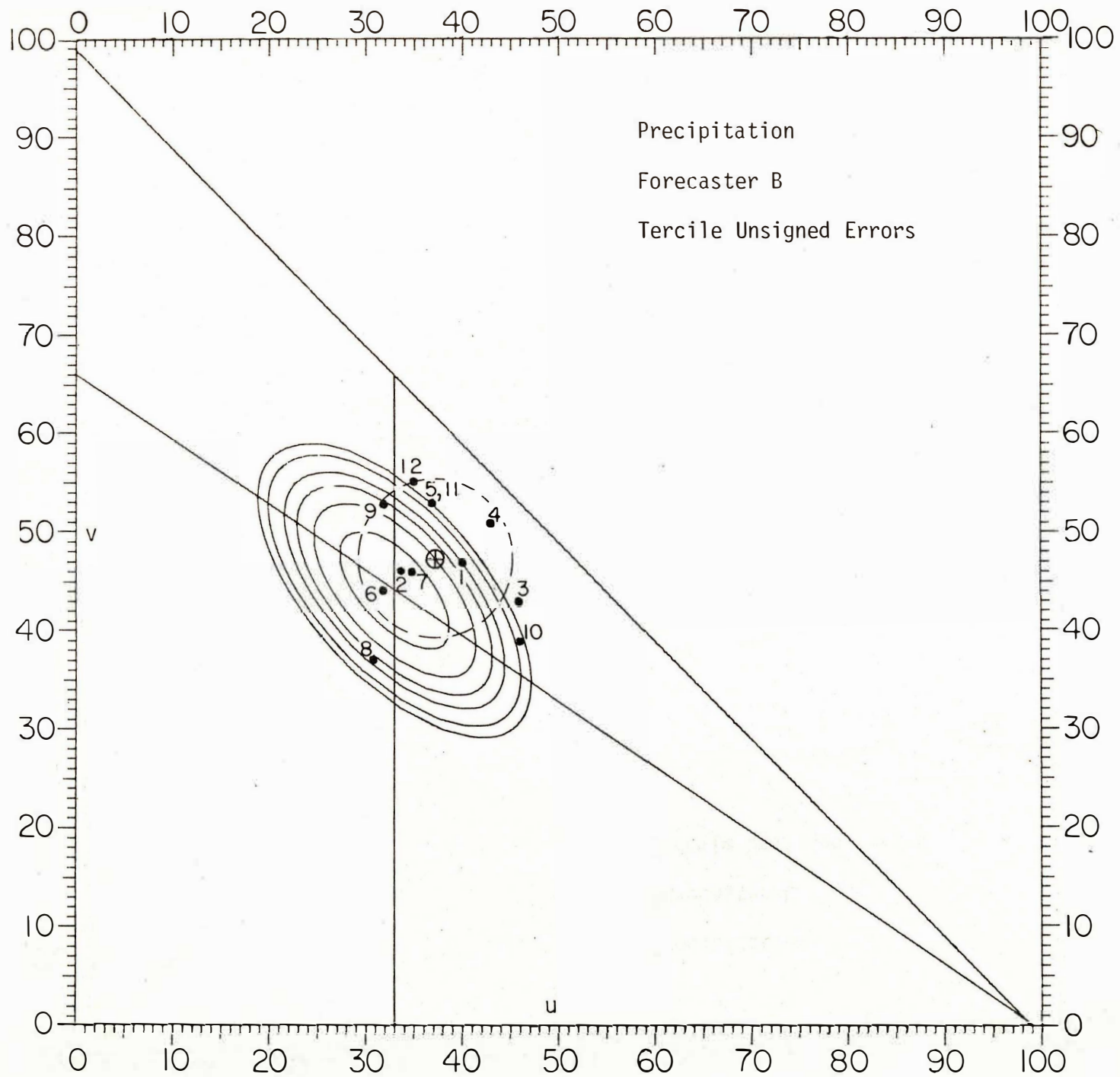


Figure 12

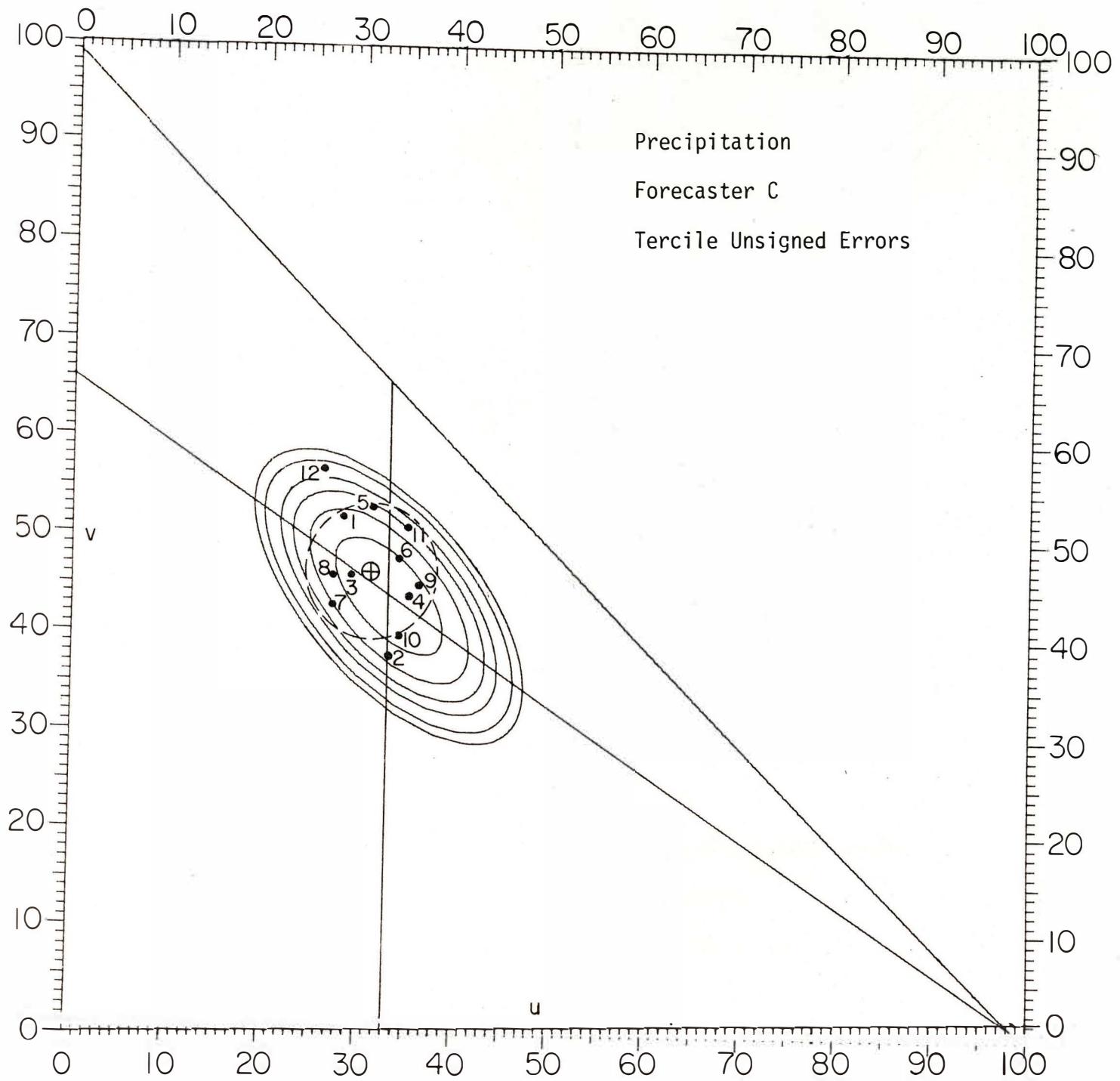


Figure 13

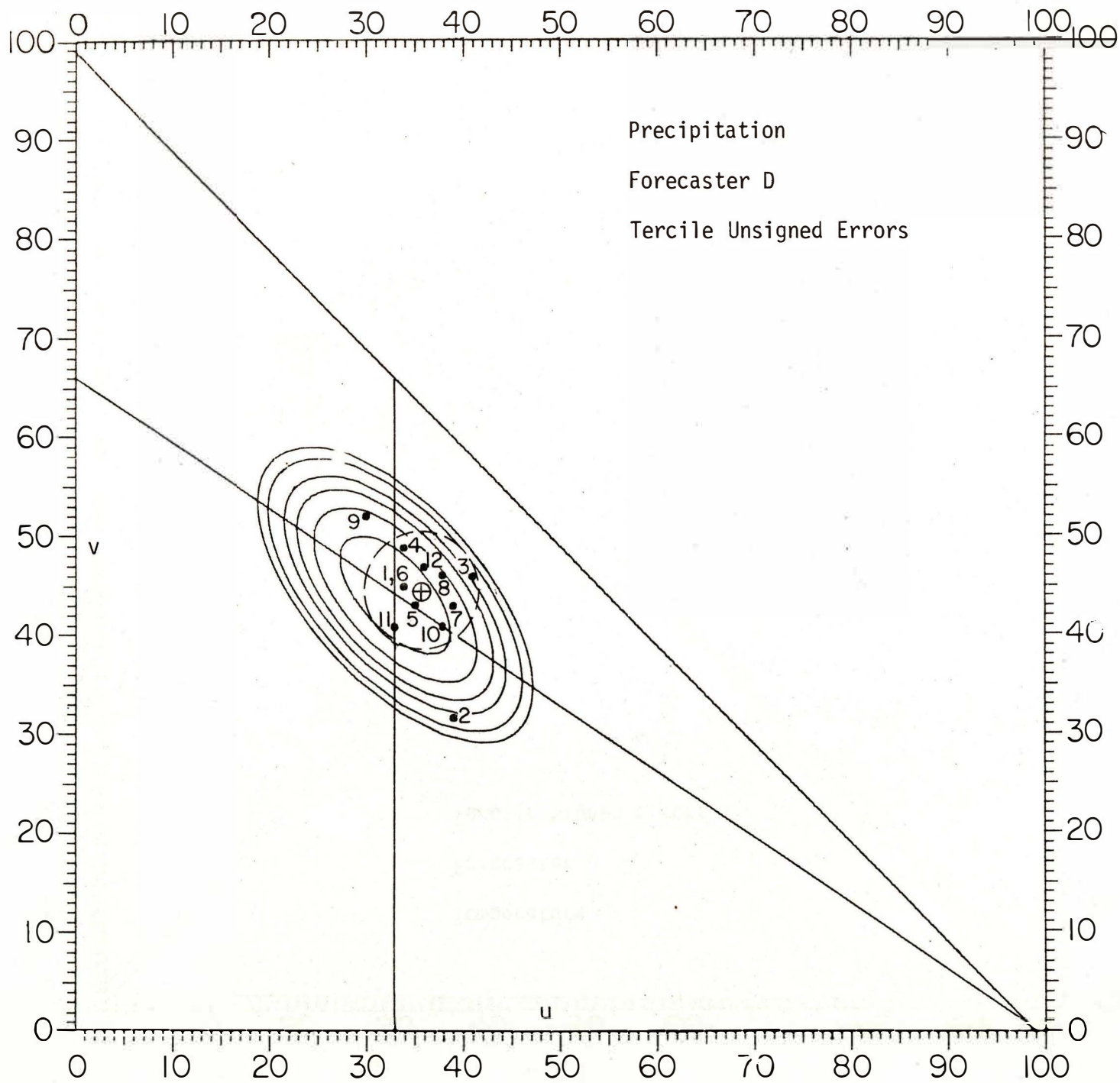


Figure 14

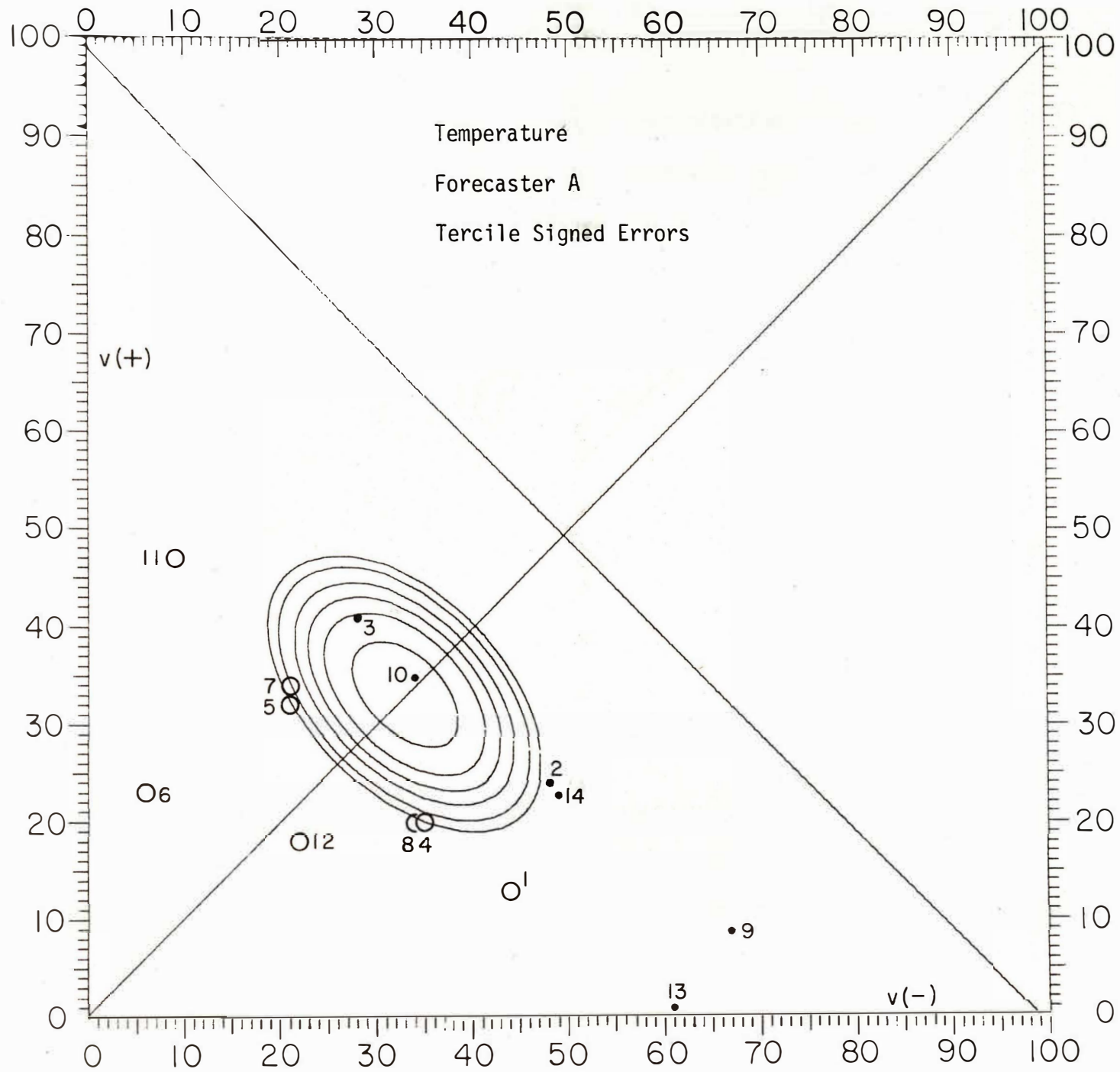


Figure 15



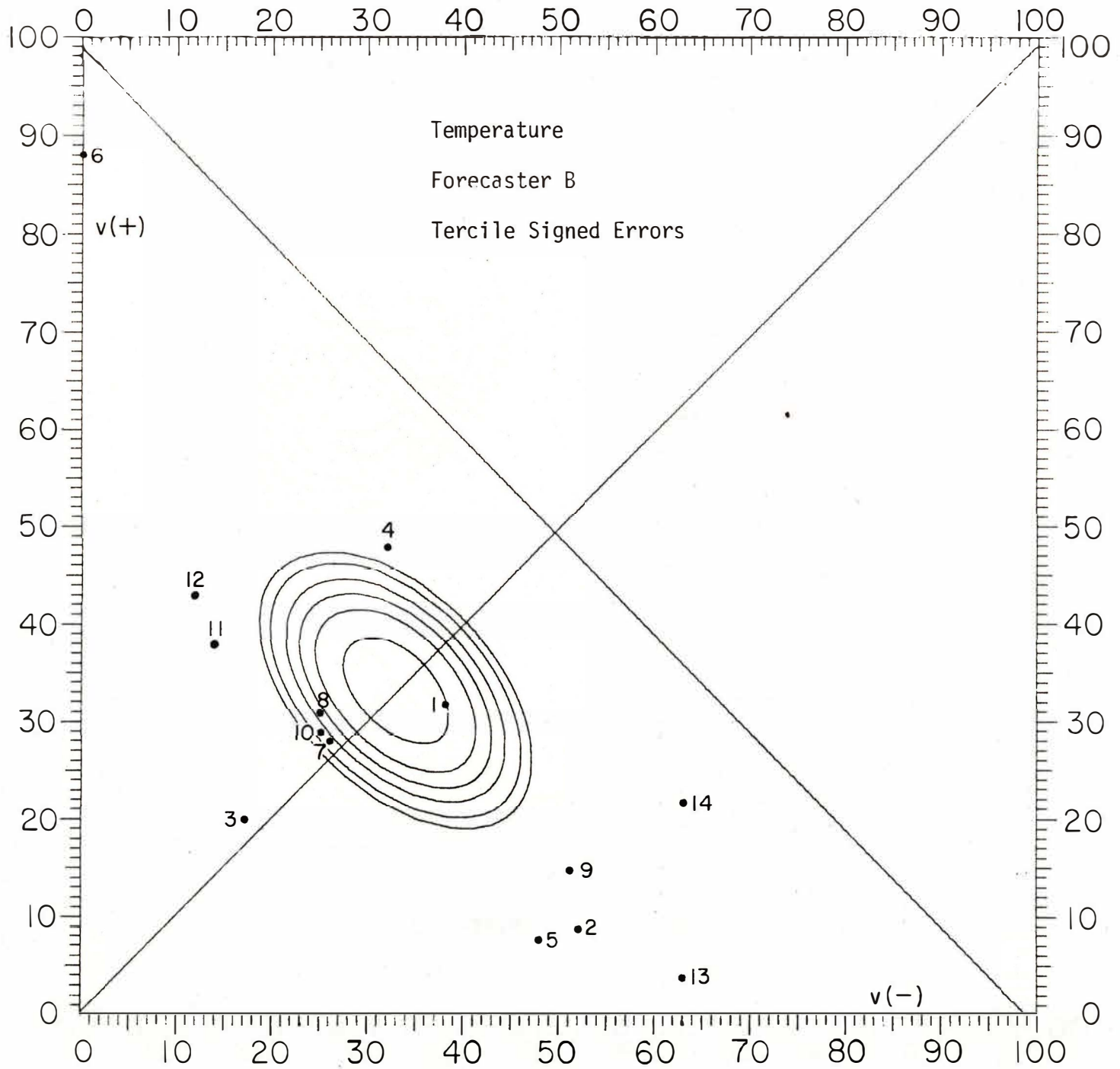


Figure 16

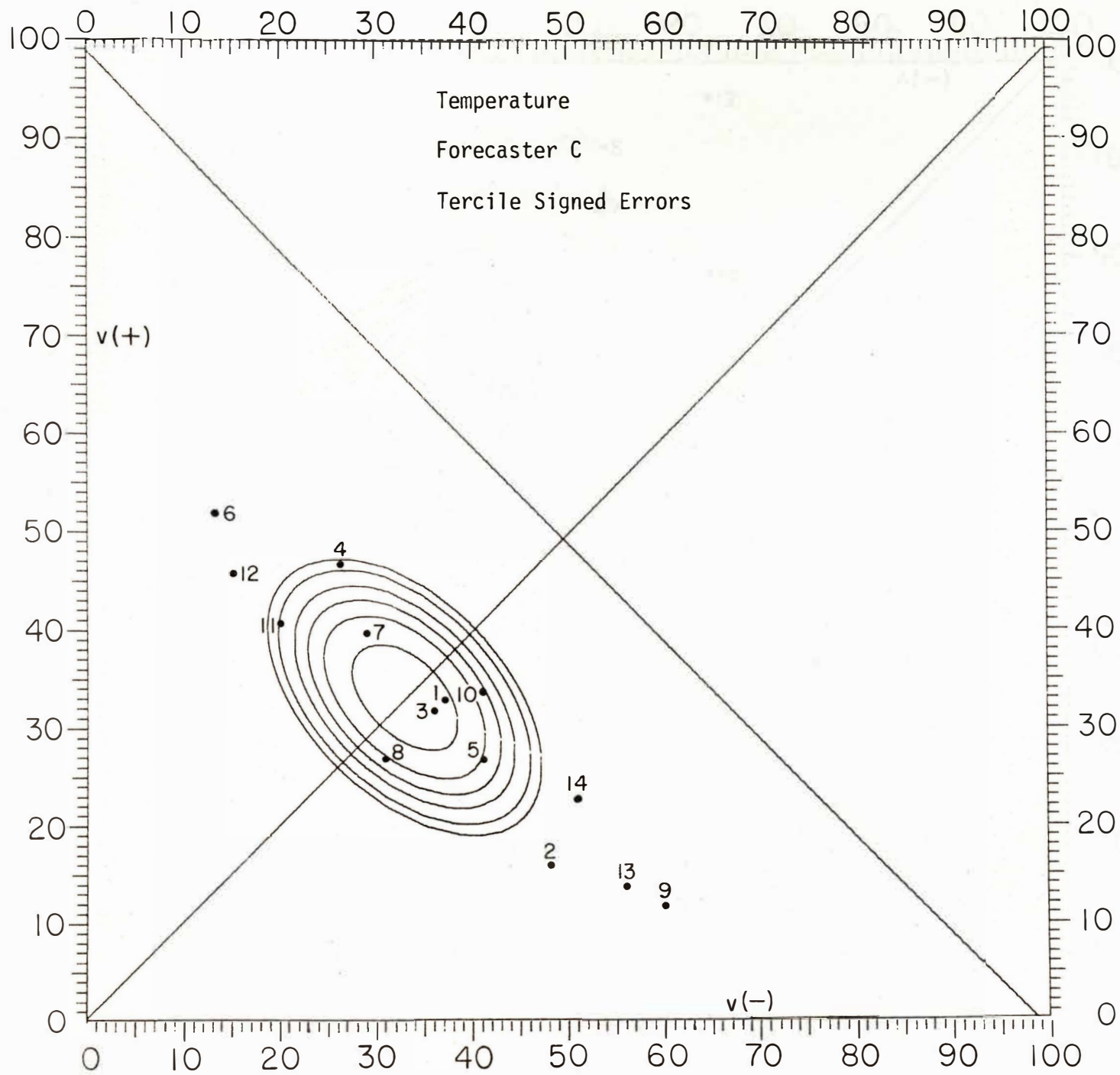


Figure 17

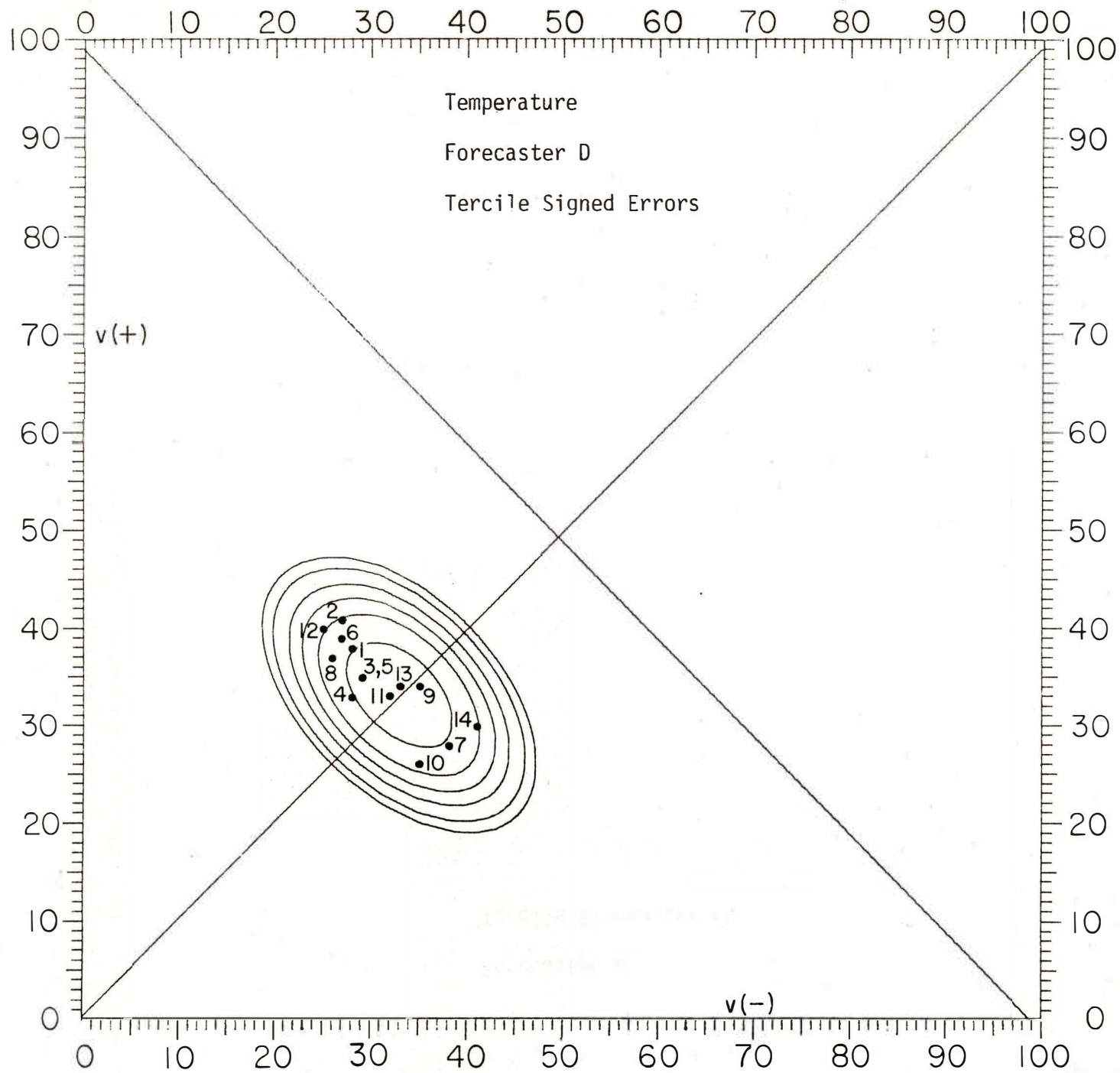


Figure 18

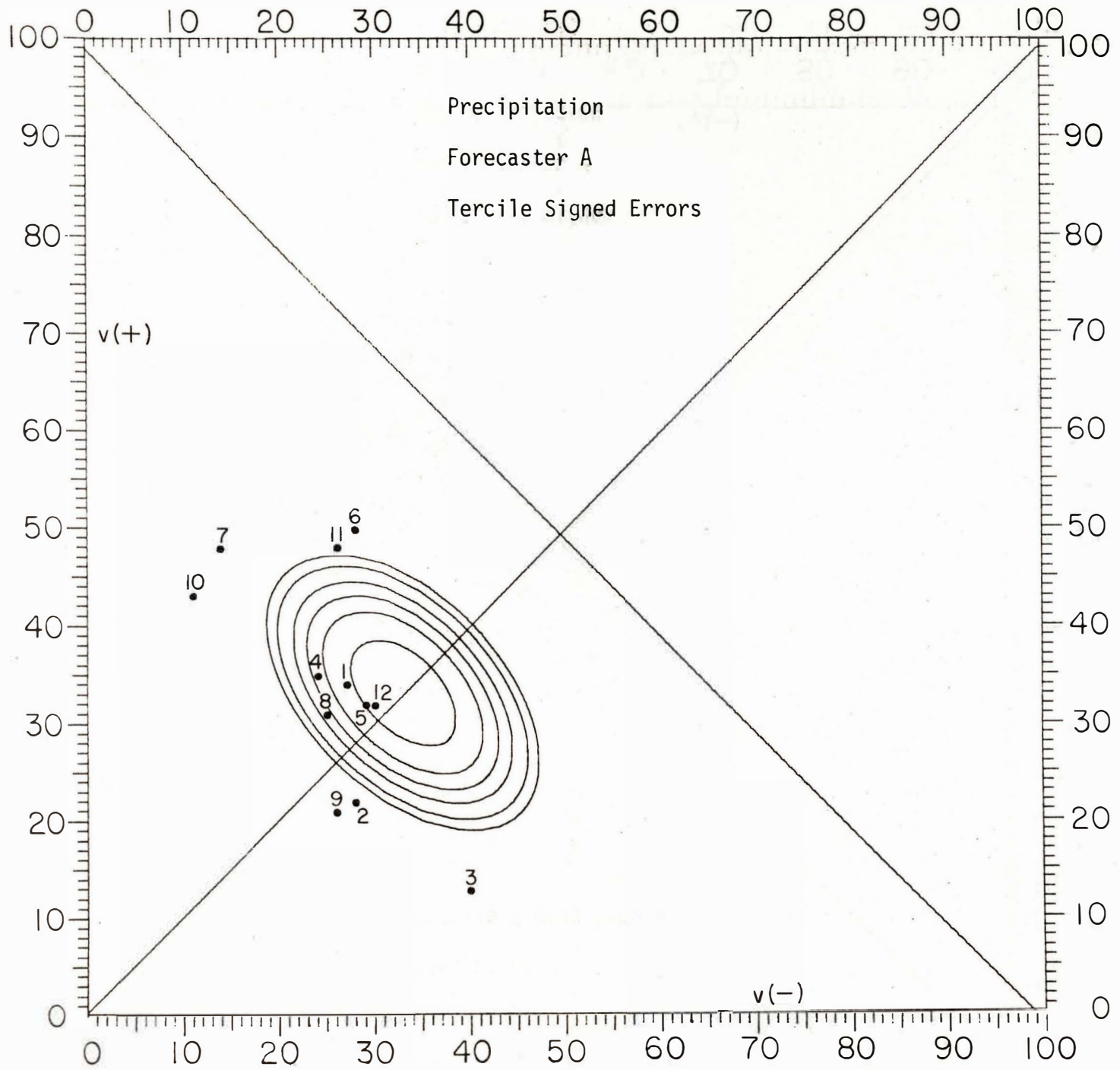
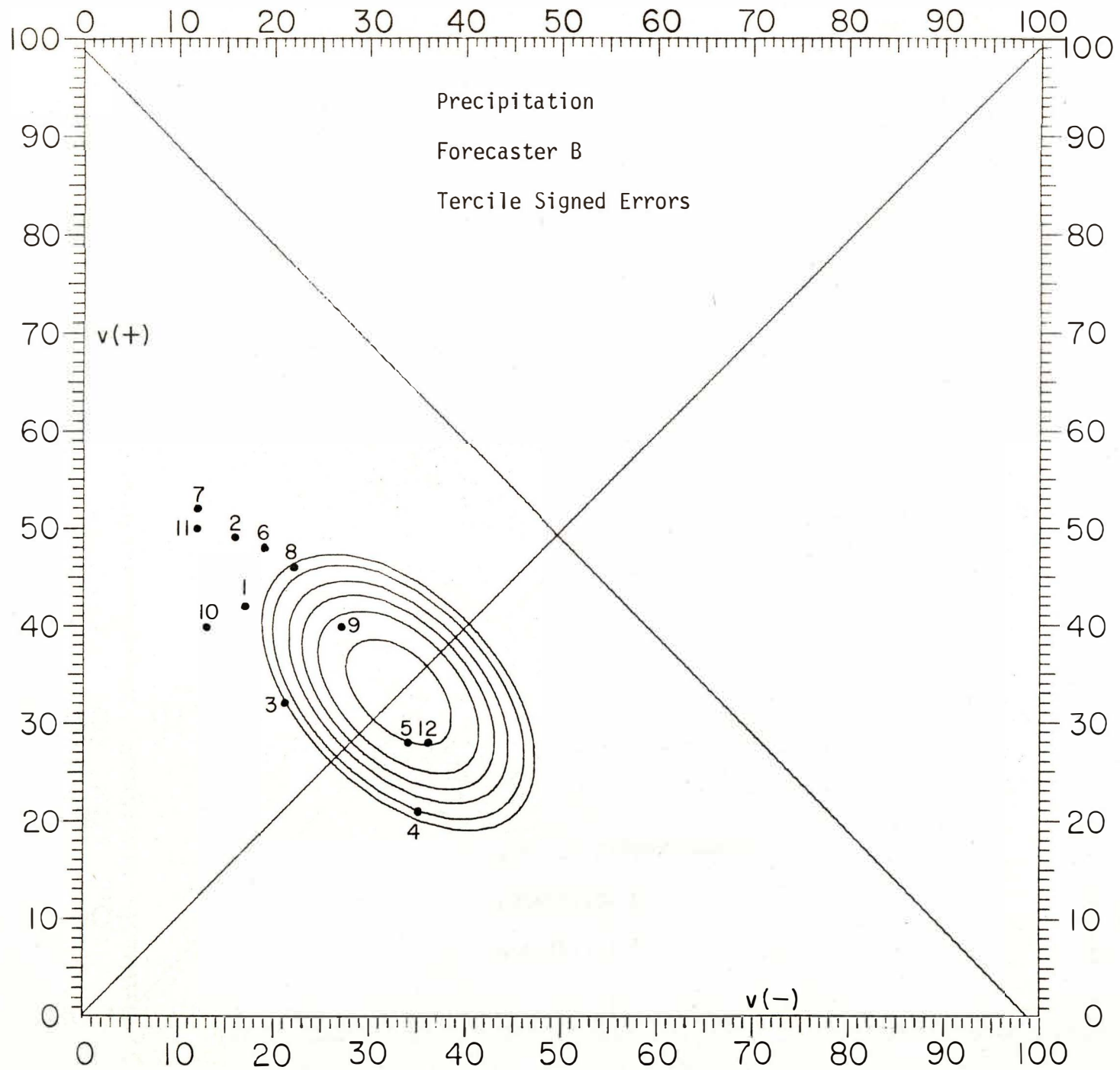


Figure 19



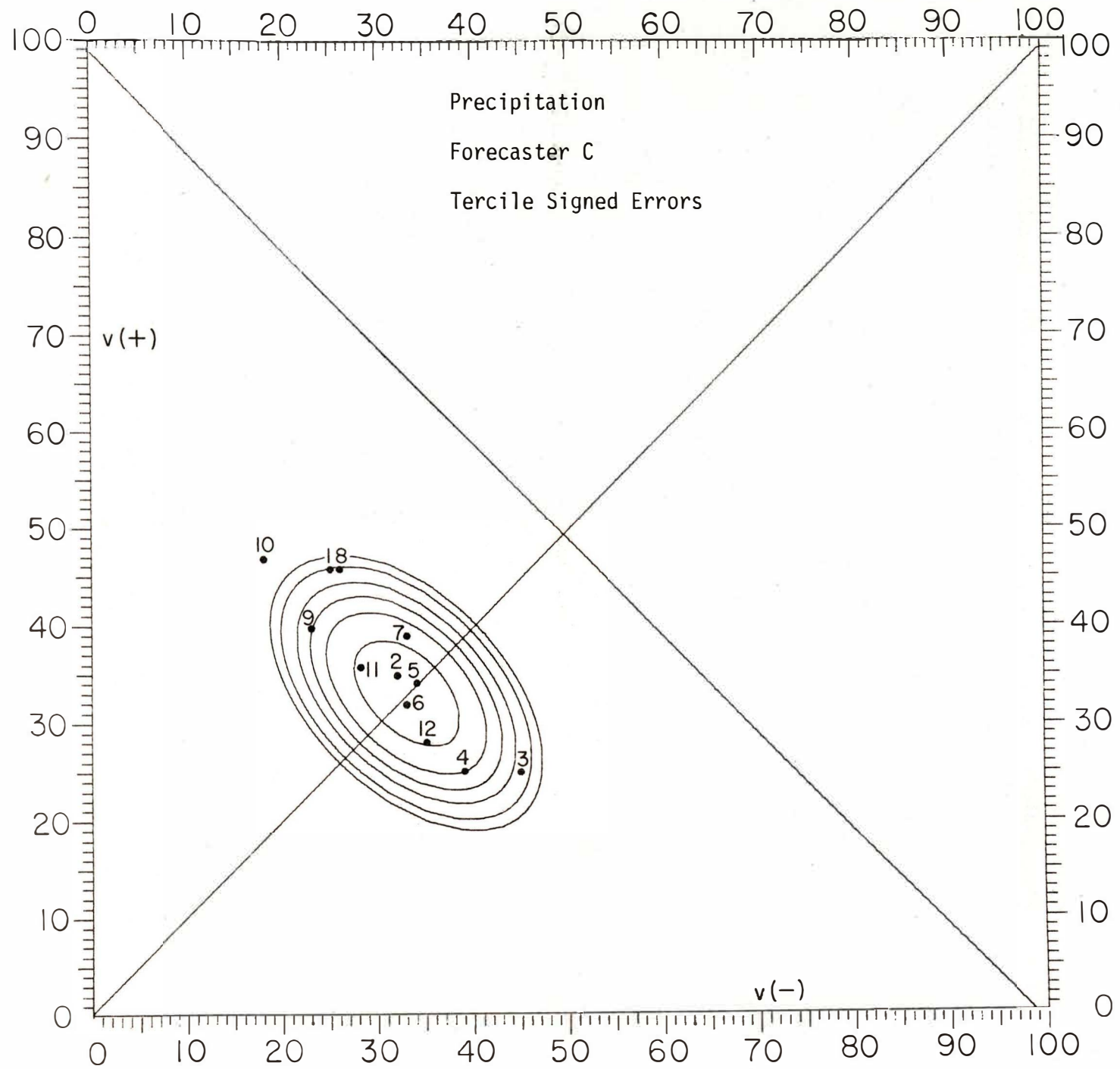


Figure 21

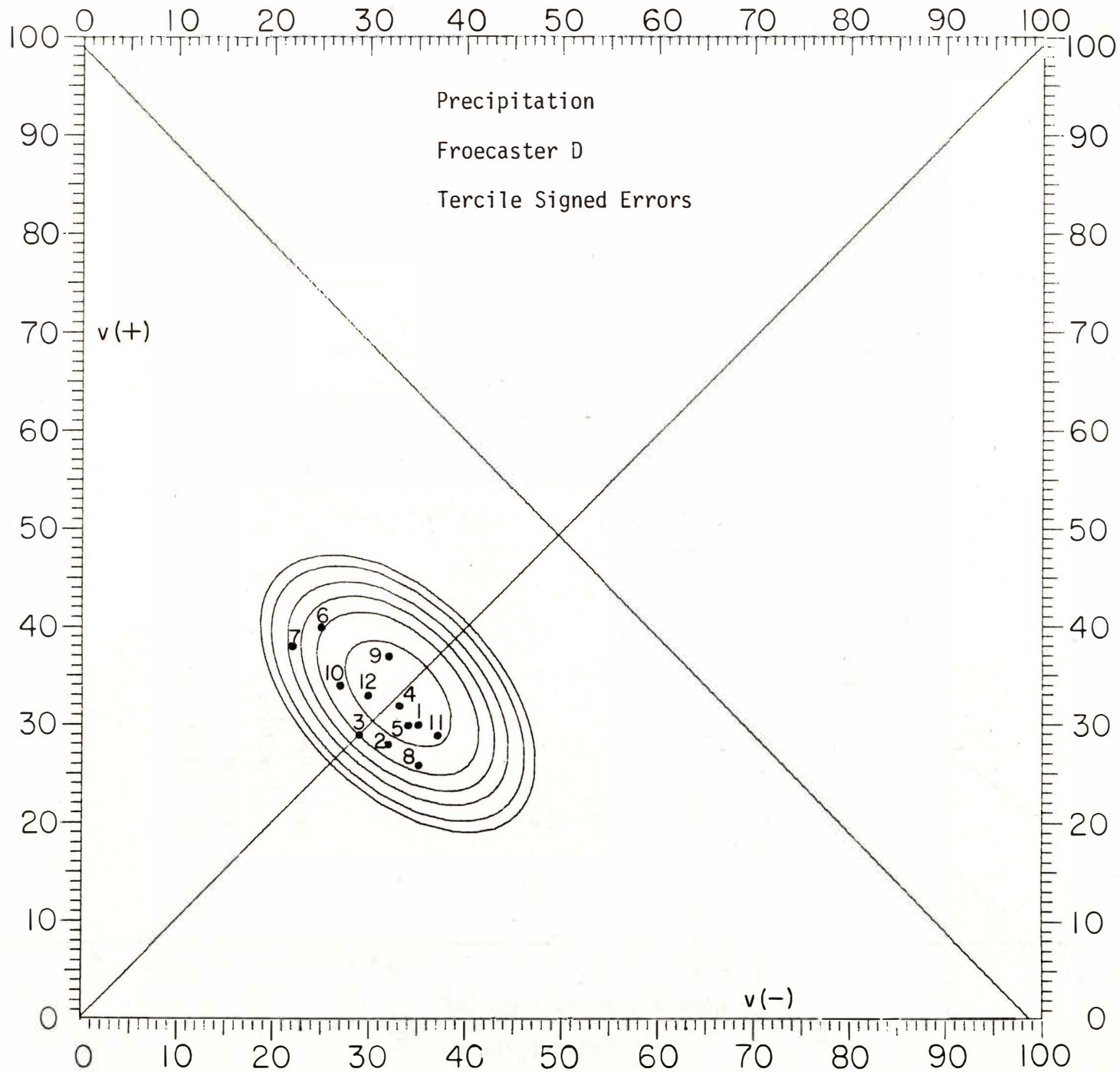


Figure 22

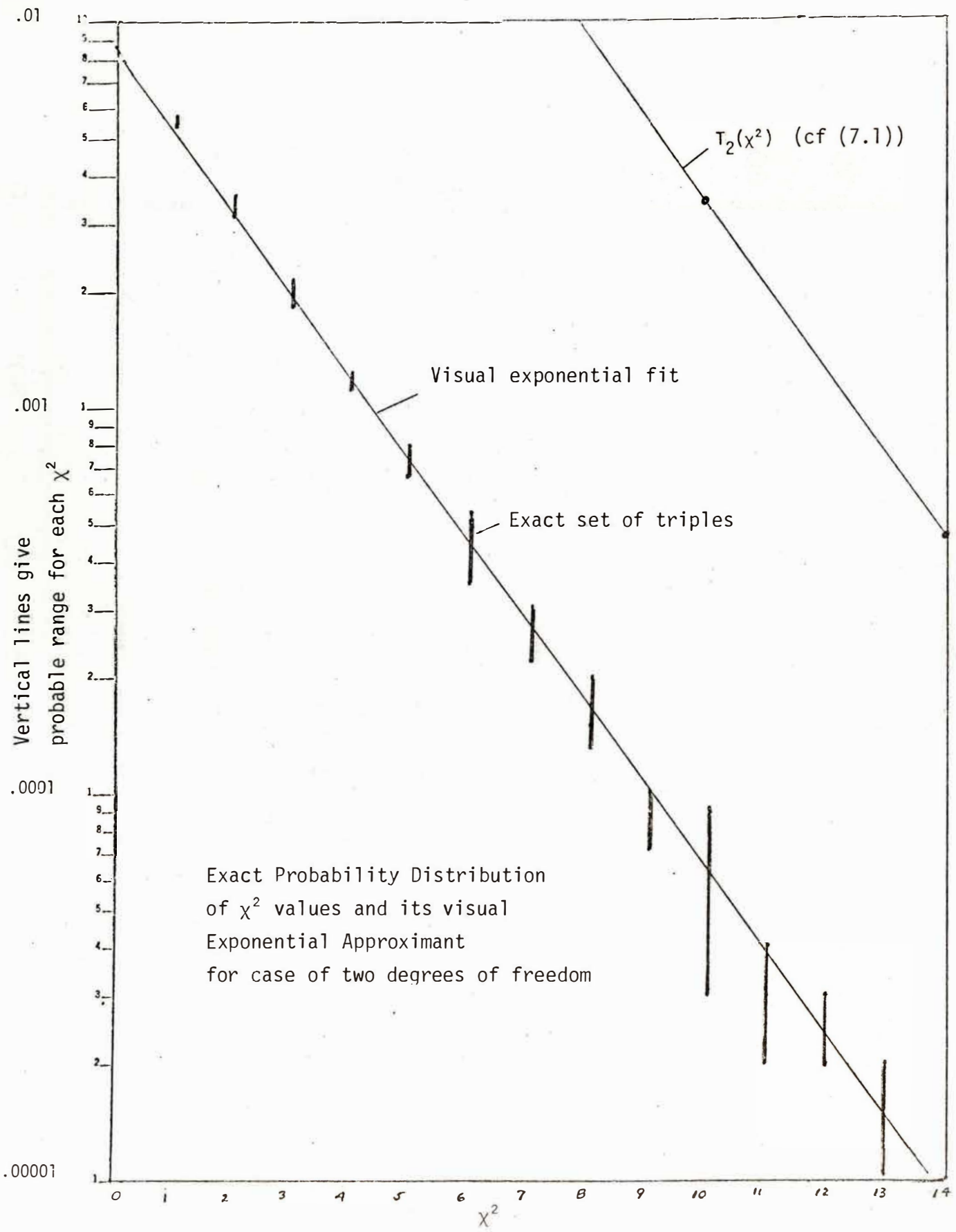


Figure 23



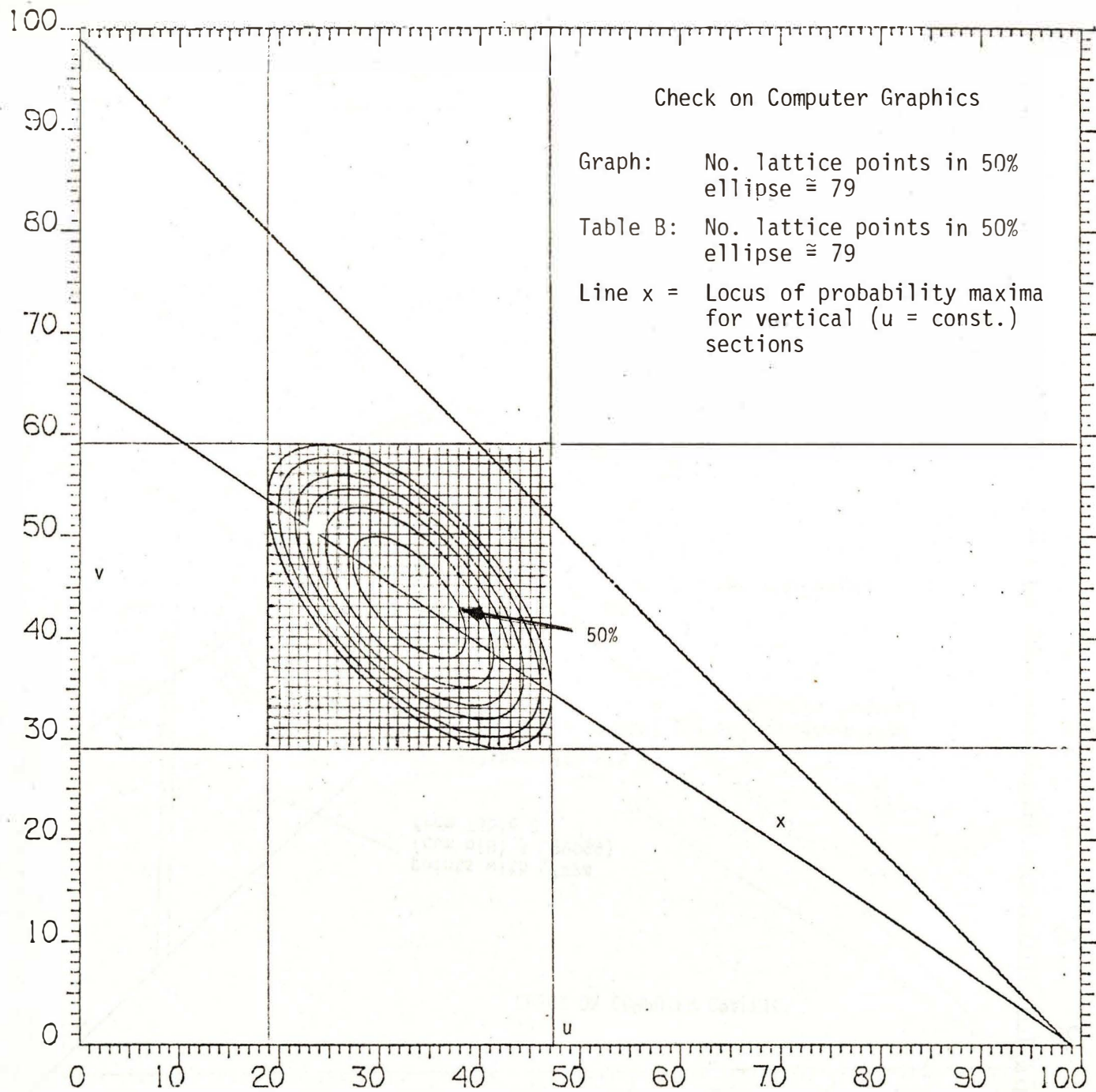


Figure 24

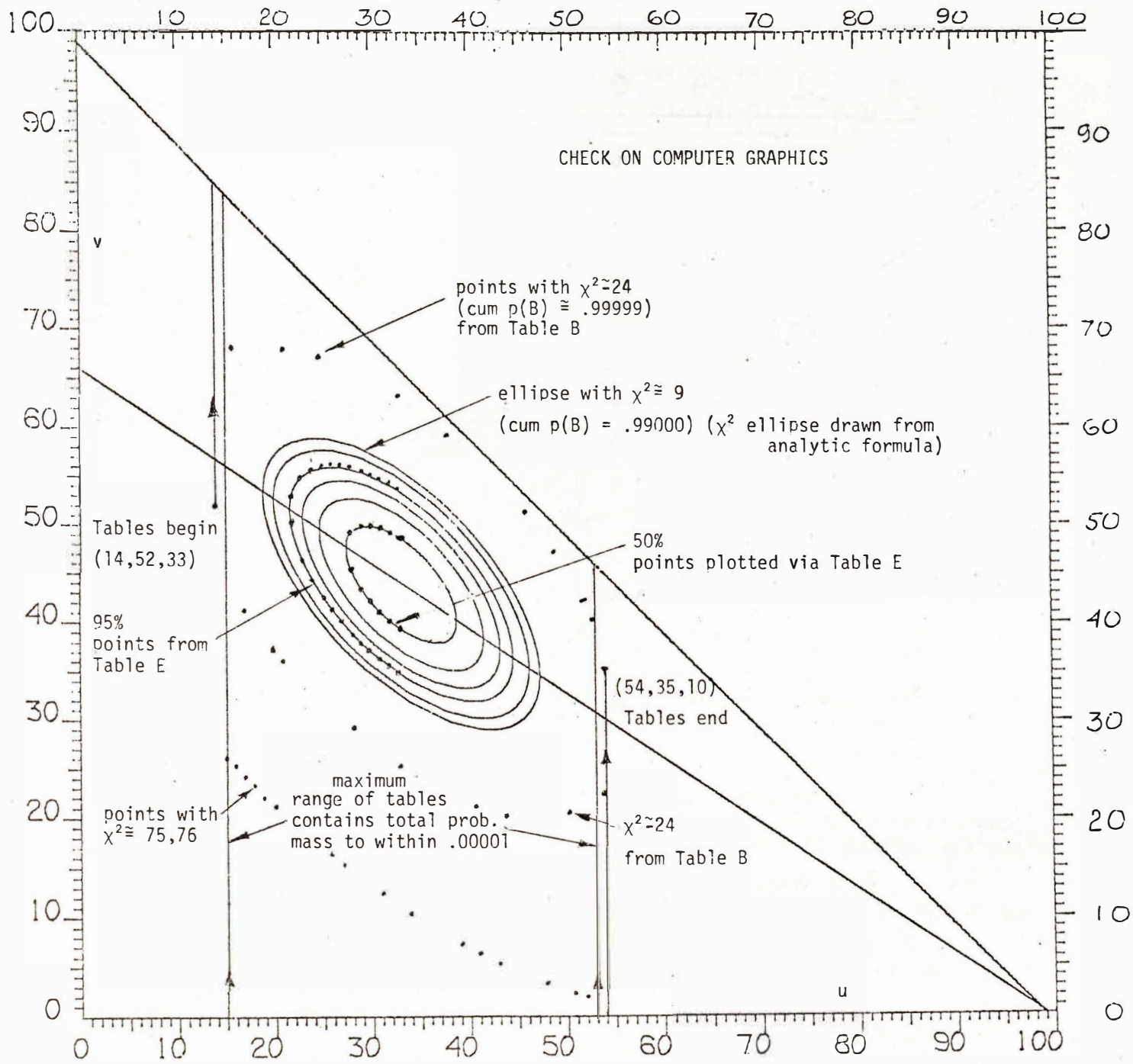


Figure 25

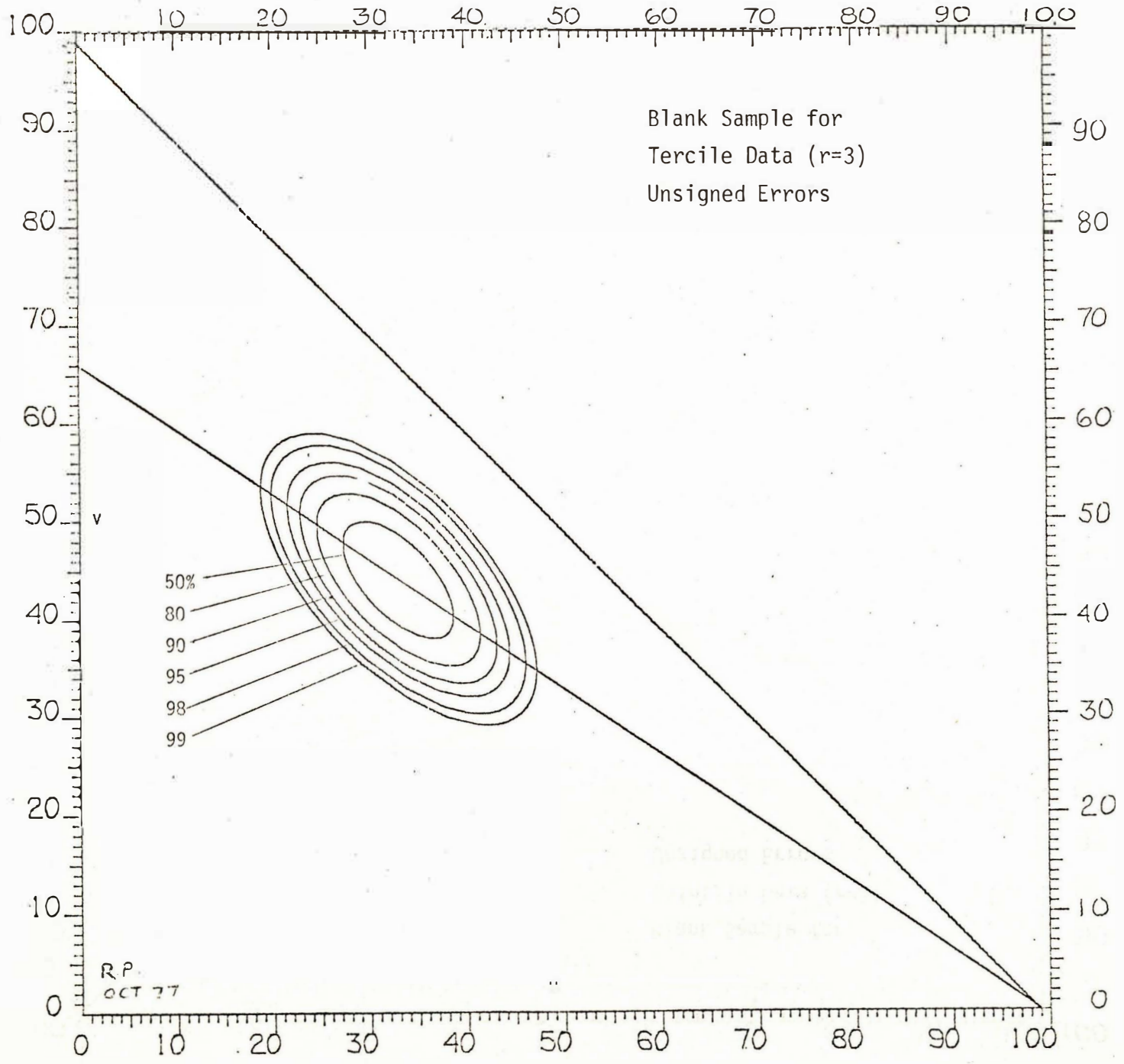


Figure 26

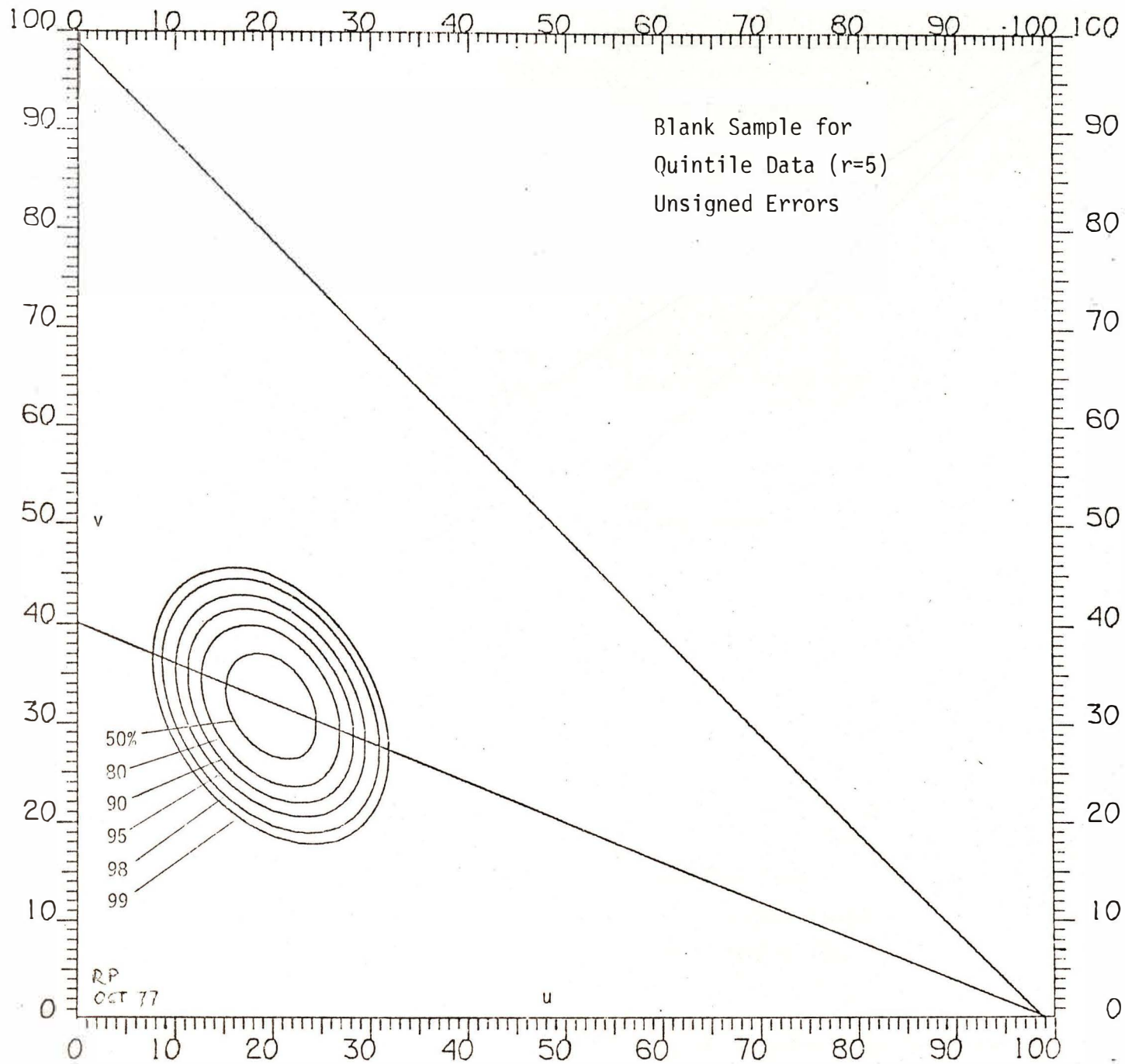


Figure 27

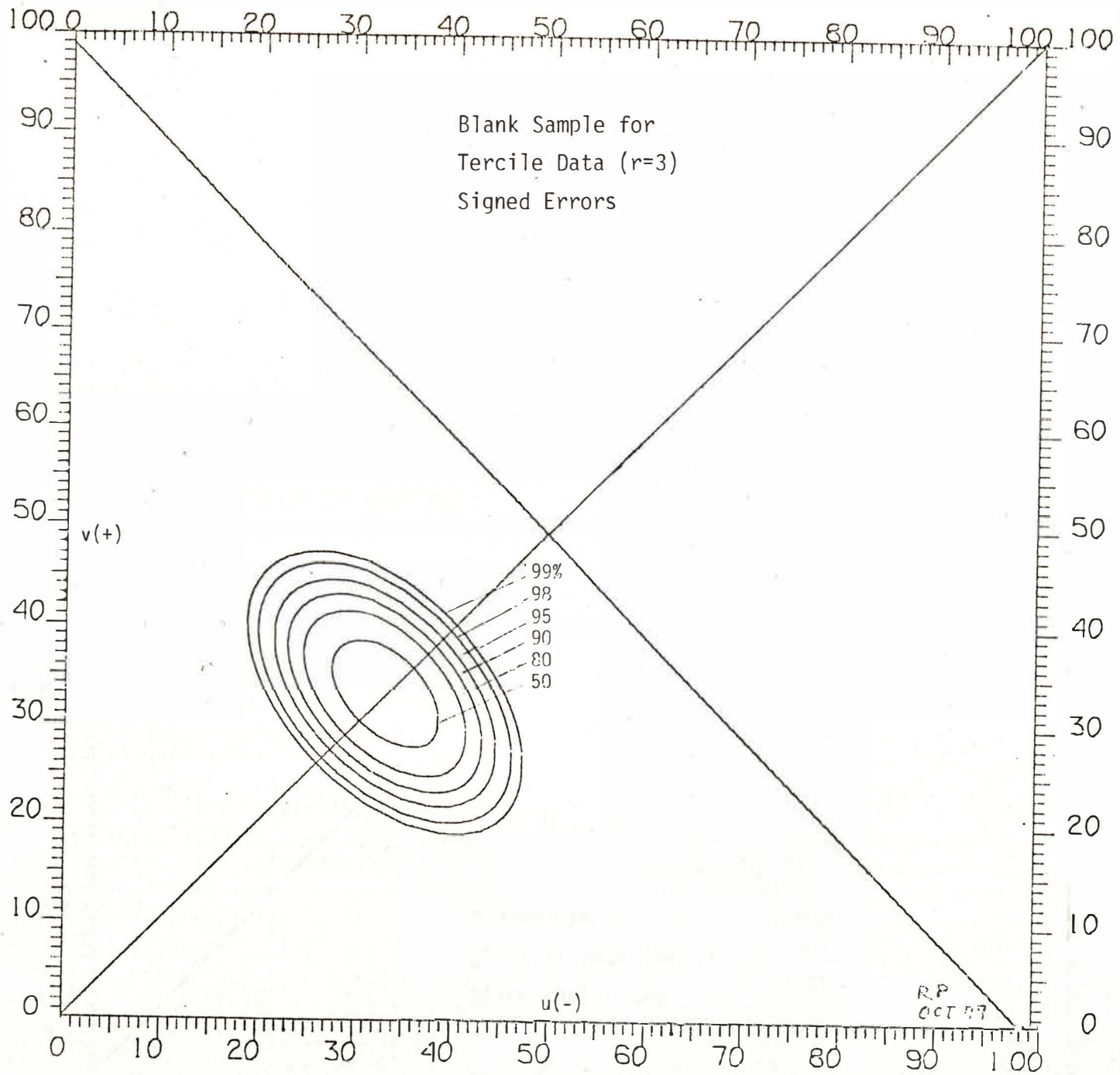


Figure 28

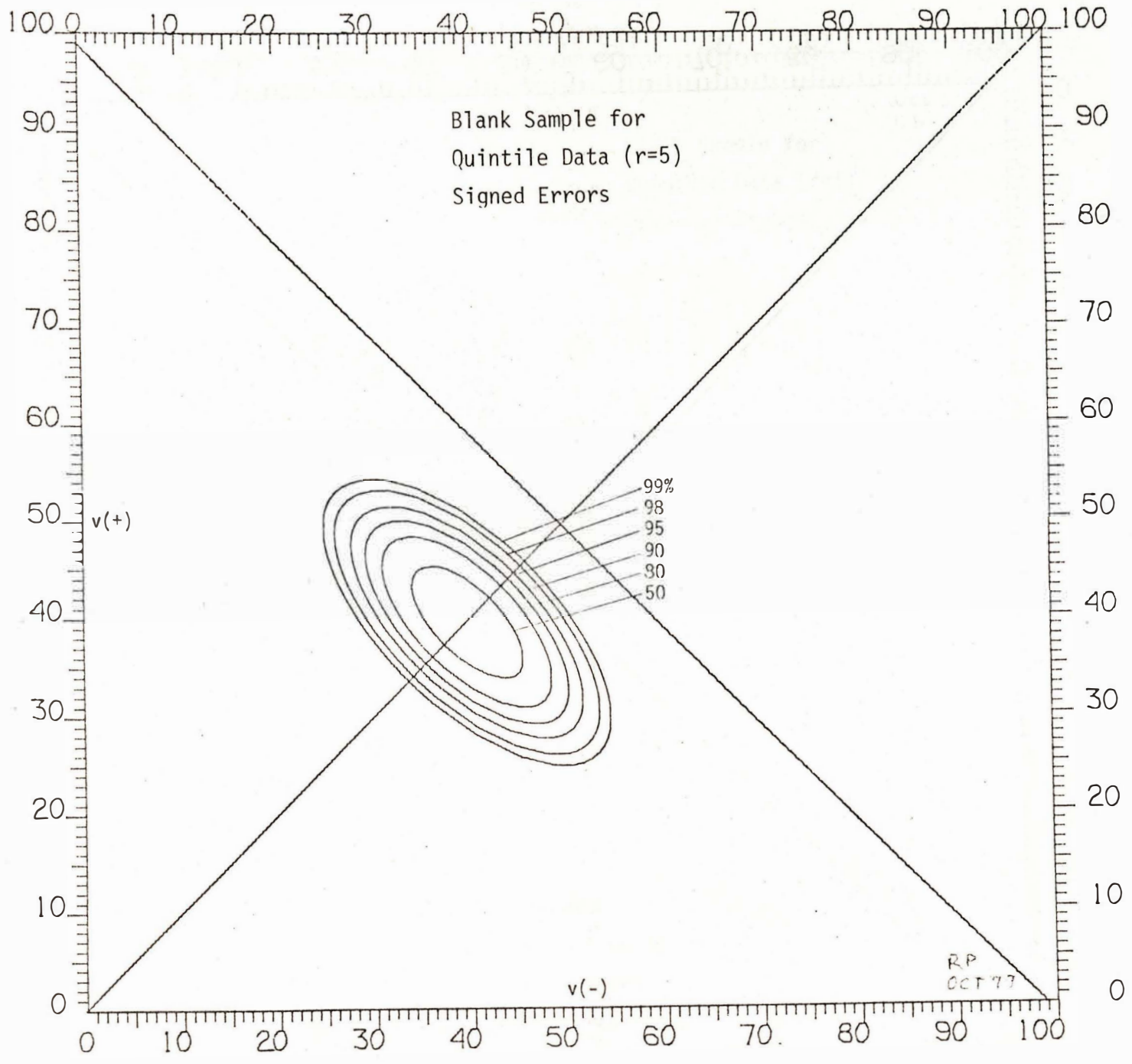


Figure 29

TABLE A

CHI SQUARE - P1(1/3), P1(4/9), P2(2/7) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
14	52	33	17.8939	.0000	.0000	15	16	68	123.8182	.0000	.0000	15	66	18	21.5455	.0000	.0000	16	31	52	53.5076	.0000	.0000	16	31	52	53.5076	.0000	.0000	16	31	52	53.5076	.0000	.0000	16	31	52	53.5076	.0000	.0000
14	53	34	17.3258	.0000	.0000	15	17	67	118.4318	.0000	.0001	15	67	17	22.9773	.0000	.0000	16	32	51	50.2576	.0000	.0000	16	32	51	50.2576	.0000	.0000	16	32	51	50.2576	.0000	.0000	16	32	51	50.2576	.0000	.0000
14	54	35	15.8929	.0000	.0000	15	18	66	113.1818	.0000	.0000	15	68	16	24.5455	.0000	.0000	16	33	50	47.1439	.0000	.0000	16	33	50	47.1439	.0000	.0000	16	33	50	47.1439	.0000	.0000	16	33	50	47.1439	.0000	.0000
14	55	36	16.5985	.0000	.0000	15	19	65	108.0682	.0000	.0000	15	69	15	26.2500	.0000	.0000	16	34	49	44.1667	.0000	.0000	16	34	49	44.1667	.0000	.0000	16	34	49	44.1667	.0000	.0000	16	34	49	44.1667	.0000	.0000
14	56	29	15.4439	.0000	.0000	15	20	64	103.0909	.0000	.0000	15	70	14	28.9090	.0000	.0000	16	35	48	41.3258	.0000	.0000	16	35	48	41.3258	.0000	.0000	16	35	48	41.3258	.0000	.0000	16	35	48	41.3258	.0000	.0000
14	57	28	15.4167	.0000	.0000	15	21	63	98.2500	.0000	.0000	15	71	13	30.6667	.0000	.0000	16	36	47	38.6212	.0000	.0000	16	36	47	38.6212	.0000	.0000	16	36	47	38.6212	.0000	.0000	16	36	47	38.6212	.0000	.0000
14	58	27	16.5333	.0000	.0000	15	22	62	93.5455	.0000	.0000	15	72	12	32.1818	.0000	.0000	16	37	46	36.0530	.0000	.0000	16	37	46	36.0530	.0000	.0000	16	37	46	36.0530	.0000	.0000	16	37	46	36.0530	.0000	.0000
14	59	26	15.7803	.0000	.0000	15	23	61	88.9773	.0000	.0001	15	73	11	34.8318	.0000	.0000	16	38	45	33.6212	.0000	.0000	16	38	45	33.6212	.0000	.0000	16	38	45	33.6212	.0000	.0000	16	38	45	33.6212	.0000	.0000
14	60	25	17.1667	.0000	.0000	15	24	60	84.5455	.0000	.0000	15	74	10	38.6182	.0000	.0000	16	39	44	31.3258	.0000	.0000	16	39	44	31.3258	.0000	.0000	16	39	44	31.3258	.0000	.0000	16	39	44	31.3258	.0000	.0000
14	61	24	17.8694	.0000	.0000	15	25	59	80.2500	.0000	.0000	15	75	9	39.3409	.0000	.0000	16	40	43	29.1667	.0000	.0000	16	40	43	29.1667	.0000	.0000	16	40	43	29.1667	.0000	.0000	16	40	43	29.1667	.0000	.0000
14	62	23	18.3485	.0000	.0000	15	26	58	76.9909	.0000	.0000	15	76	8	42.0000	.0000	.0000	16	41	42	27.1439	.0000	.0000	16	41	42	27.1439	.0000	.0000	16	41	42	27.1439	.0000	.0000	16	41	42	27.1439	.0000	.0000
14	63	22	19.1439	.0000	.0000	15	27	57	72.0682	.0000	.0000	15	77	7	44.7955	.0000	.0000	16	42	41	25.2576	.0000	.0000	16	42	41	25.2576	.0000	.0000	16	42	41	25.2576	.0000	.0000	16	42	41	25.2576	.0000	.0000
14	64	21	20.7588	.0000	.0000	15	28	56	68.1818	.0000	.0000	15	78	6	47.7273	.0000	.0000	16	43	40	23.5676	.0000	.0000	16	43	40	23.5676	.0000	.0000	16	43	40	23.5676	.0000	.0000	16	43	40	23.5676	.0000	.0000
14	65	20	21.1439	.0000	.0000	15	29	55	64.4318	.0000	.0000	15	79	5	50.7955	.0000	.0000	16	44	39	21.8939	.0000	.0000	16	44	39	21.8939	.0000	.0000	16	44	39	21.8939	.0000	.0000	16	44	39	21.8939	.0000	.0000
14	66	19	22.3485	.0000	.0000	15	30	54	60.8182	.0000	.0000	15	80	4	54.0000	.0000	.0000	16	45	38	20.4167	.0000	.0000	16	45	38	20.4167	.0000	.0000	16	45	38	20.4167	.0000	.0000	16	45	38	20.4167	.0000	.0000
14	67	18	23.6894	.0000	.0000	15	31	53	57.3409	.0000	.0000	15	81	3	57.3409	.0000	.0000	16	46	37	19.0758	.0000	.0000	16	46	37	19.0758	.0000	.0000	16	46	37	19.0758	.0000	.0000	16	46	37	19.0758	.0000	.0000
14	68	17	25.1667	.0000	.0000	15	32	52	54.0000	.0000	.0000	15	82	2	60.8182	.0000	.0000	16	47	36	17.8712	.0000	.0000	16	47	36	17.8712	.0000	.0000	16	47	36	17.8712	.0000	.0000	16	47	36	17.8712	.0000	.0000
14	69	16	25.7803	.0000	.0000	15	33	51	50.7955	.0000	.0000	15	83	1	64.8318	.0000	.0000	16	48	35	16.8030	.0000	.0000	16	48	35	16.8030	.0000	.0000	16	48	35	16.8030	.0000	.0000	16	48	35	16.8030	.0000	.0000
14	70	15	28.5303	.0000	.0000	15	34	50	47.7273	.0000	.0000	15	84	0	68.1818	.0000	.0000	16	49	34	15.8712	.0000	.0000	16	49	34	15.8712	.0000	.0000	16	49	34	15.8712	.0000	.0000	16	49	34	15.8712	.0000	.0000
14	71	14	30.4167	.0000	.0000	15	35	49	44.7955	.0000	.0000	16	0	83	21.8939	.0000	.0000	16	50	33	15.0758	.0000	.0000	16	50	33	15.0758	.0000	.0000	16	50	33	15.0758	.0000	.0000	16	50	33	15.0758	.0000	.0000
14	72	13	32.4394	.0000	.0000	15	36	48	42.0000	.0000	.0000	16	1	82	21.4167	.0000	.0000	16	51	32	14.4167	.0000	.0000	16	51	32	14.4167	.0000	.0000	16	51	32	14.4167	.0000	.0000	16	51	32	14.4167	.0000	.0000
14	73	12	34.5985	.0000	.0000	15	37	47	39.3409	.0000	.0000	16	2	81	20.7588	.0000	.0000	16	52	31	13.8939	.0000	.0000	16	52	31	13.8939	.0000	.0000	16	52	31	13.8939	.0000	.0000	16	52	31	13.8939	.0000	.0000
14	74	11	36.8939	.0000	.0000	15	38	46	36.8182	.0000	.0000	16	3	80	19.8712	.0000	.0000	16	53	30	13.5076	.0000	.0000	16	53	30	13.5076	.0000	.0000	16	53	30	13.5076	.0000	.0000	16	53	30	13.5076	.0000	.0000
14	75	10	39.3258	.0000	.0000	15	39	45	34.4318	.0000	.0000	16	4	79	19.2500	.0000	.0000	16	54	29	13.2576	.0000	.0000	16	54	29	13.2576	.0000	.0000	16	54	29	13.2576	.0000	.0000	16	54	29	13.2576	.0000	.0000
14	76	9	41.8939	.0000	.0000	15	40	44	32.1818	.0000	.0000	16	5	78	18.5872	.0000	.0000	16	55	28	13.1439	.0000	.0000	16	55	28	13.1439	.0000	.0000	16	55	28	13.1439	.0000	.0000	16	55	28	13.1439	.0000	.0000
14	77	8	44.5985	.0000	.0000	15	41	43	30.3682	.0000	.0000	16	6	77	17.90758	.0000	.0000	16	56	27	13.1667	.0000	.0000	16	56	27	13.1667	.0000	.0000	16	56	27	13.1667	.0000	.0000	16	56	27	13.1667	.0000	.0000
14	78	7	47.4394	.0000	.0000	15	42	42	28.9909	.0000	.0000	16	7	76	17.4167	.0000	.0000	16	57	25	13.3258	.0000	.0000	16	57	25	13.3258	.0000	.0000	16	57	25	13.3258	.0000	.0000	16	57	25	13.3258	.0000	.0000
14	79	6	50.4167	.0000	.0000	15	43	41	26.2500	.0000	.0000	16	8	75	16.8939	.0000	.0000	16	58	25	13.6212	.0000	.0000	16	58	25	13.6212	.0000	.0000	16	58	25	13.6212	.0000	.0000	16	58	25	13.6212	.0000	.0000
14	80	5	53.5303	.0000	.0000	15	44	40	24.5455	.0000	.0000	16	9	74	15.9076	.0000	.0000	16	59	24	14.9530	.0000	.0000	16	59	24	14.9530	.0000	.0000	16	59	24	14.9530	.0000	.0000	16	59	24	14.9530	.0000	.0000
14	81	4	56.7803	.0000	.0000	15	45	39	22.9773	.0000	.0000	16	10	73	15.3258	.0000	.0000	16	60	23	14.6212	.0000	.0000	16	60	23	14.6212	.0000	.0000	16	60	23	14.6212	.0000	.0000	16	60	23	14.6212	.0000	.0000
14	82	3	59.1667	.0000	.0000	15	46	38	21.5455	.0000	.0000	16	11	72	14.71439	.0000	.0000	16	61	22	15.3258	.0000	.0000	16	61	22	15.3258	.0000	.0000	16	61	22	15.3258	.0000	.0000	16	61	22	15.3258	.0000	.0000
14	83	2	63.6894	.0000	.0000	15	47	37	20.2500	.0000	.0000	16	12	71	14.1667	.0000	.0000	16	62	21	16.1667	.0000	.0000	16	62	21	16.1667	.0000	.0000	16	62	21	16.1667	.0000	.0000	16	62	21	16.1667	.0000	.0000
14	84	1	67.3485	.0000	.0000	15	48	36	19.0909	.0000	.0000	16	13	70	13.53258	.0000	.0000	16	63	20	17.1439	.0000	.0000	16	63	20	17.1439	.0000	.0000	16	63	20	17.1439	.0000	.0000	16	63	20	17.1439	.0000	.0000
14	85	0	71.1439	.0000	.0000	15	49</																																		

TABLE A

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
19	32	48	39.9394	.00000	.00061	20	1	78	189.6894	.00000	.00136
19	33	47	37.9985	.00000	.00061	20	2	77	182.7121	.00000	.00136
19	34	46	36.3939	.00000	.00061	20	3	76	175.8712	.00000	.00136
19	35	45	31.8258	.00000	.00061	20	4	75	169.1667	.00000	.00136
19	36	44	29.3939	.00000	.00061	20	5	74	162.5985	.00000	.00136
19	37	43	27.6985	.00000	.00061	20	6	73	156.1667	.00000	.00136
19	38	42	24.9394	.00000	.00061	20	7	72	149.8712	.00000	.00136
19	39	41	22.9167	.00000	.00061	20	8	71	143.7121	.00000	.00136
19	40	40	21.0303	.00000	.00061	20	9	70	137.6894	.00000	.00136
19	41	39	19.2803	.00000	.00061	20	10	69	131.8030	.00000	.00136
19	42	38	17.6667	.00000	.00061	20	11	68	126.0530	.00000	.00136
19	43	37	16.1894	.00000	.00062	20	12	67	120.4394	.00000	.00136
19	44	36	14.8485	.00001	.00062	20	13	66	114.9621	.00000	.00136
19	45	35	13.6439	.00001	.00063	20	14	65	109.6212	.00000	.00136
19	46	34	12.5758	.00002	.00065	20	15	64	104.4167	.00000	.00136
19	47	33	11.6439	.00002	.00067	20	16	63	99.3485	.00000	.00136
19	48	32	10.8485	.00003	.00071	20	17	62	94.4167	.00000	.00136
19	49	31	10.1894	.00004	.00075	20	18	61	89.6212	.00000	.00136
19	50	30	9.6667	.00005	.00080	20	19	60	84.9621	.00000	.00136
19	51	29	9.2803	.00006	.00086	20	20	59	80.4394	.00000	.00136
19	52	28	9.0303	.00007	.00092	20	21	58	76.0530	.00000	.00136
19	53	27	8.9167	.00007	.00099	20	22	57	71.8030	.00000	.00136
19	54	26	8.9394	.00007	.00107	20	23	56	67.6894	.00000	.00136
19	55	25	9.0985	.00007	.00113	20	24	55	63.7121	.00000	.00136
19	56	24	9.3939	.00006	.00119	20	25	54	59.8712	.00000	.00136
19	57	23	9.8258	.00005	.00124	20	26	53	56.1667	.00000	.00136
19	58	22	10.3939	.00004	.00128	20	27	52	52.5985	.00000	.00136
19	59	21	11.0985	.00003	.00131	20	28	51	49.1667	.00000	.00136
19	60	20	11.9394	.00002	.00135	20	29	50	45.8712	.00000	.00136
19	61	19	12.9167	.00001	.00138	20	30	49	42.7121	.00000	.00136
19	62	18	14.0303	.00001	.00135	20	31	48	39.6894	.00000	.00136
19	63	17	15.2803	.00000	.00136	20	32	47	36.8030	.00000	.00136
19	64	16	16.6667	.00000	.00136	20	33	46	34.0530	.00000	.00136
19	65	15	18.1894	.00000	.00136	20	34	45	31.4394	.00000	.00136
19	66	14	19.8485	.00000	.00136	20	35	44	28.9621	.00000	.00136
19	67	13	21.6439	.00000	.00136	20	36	43	26.6212	.00000	.00136
19	68	12	23.5758	.00000	.00136	20	37	42	24.4167	.00000	.00136
19	69	11	25.6439	.00000	.00136	20	38	41	22.3485	.00000	.00136
19	70	10	27.8485	.00000	.00136	20	39	40	20.4167	.00000	.00137
19	71	9	30.1894	.00000	.00136	20	40	39	18.6212	.00000	.00137
19	72	8	32.6667	.00000	.00136	20	41	38	16.9621	.00000	.00137
19	73	7	35.2803	.00000	.00136	20	42	37	15.4394	.00001	.00138
19	74	6	38.0303	.00000	.00136	20	43	36	14.0530	.00001	.00139
19	75	5	40.9167	.00000	.00136	20	44	35	12.8030	.00002	.00141
19	76	4	43.9394	.00000	.00136	20	45	34	11.6894	.00003	.00143
19	77	3	47.0985	.00000	.00136	20	46	33	10.7121	.00004	.00147
19	78	2	50.3939	.00000	.00136	20	47	32	9.8712	.00006	.00153
19	79	1	53.8258	.00000	.00136	20	48	31	9.1667	.00008	.00161
19	80	0	57.3939	.00000	.00136	20	49	30	8.5985	.00010	.00170
20	0	79	195.6036	.00000	.00136	20	50	29	8.1667	.00011	.00182

(5)

TABLE A

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
20	51	28	7.8712	.00013	.00195	21	21	57	72.0682	.00000	.00287
20	52	27	7.7121	.00014	.00209	21	22	56	67.9691	.00000	.00287
20	53	26	7.6894	.00014	.00223	21	23	55	63.5864	.00000	.00287
20	54	25	7.8030	.00014	.00237	21	24	54	60.0000	.00000	.00287
20	55	24	8.0530	.00015	.00249	21	25	53	56.2500	.00000	.00287
20	56	23	8.4394	.00011	.00260	21	26	52	52.6364	.00000	.00287
20	57	22	8.9621	.00009	.00269	21	27	51	49.1591	.00000	.00287
20	58	21	9.6212	.00007	.00275	21	28	50	45.8182	.00000	.00287
20	59	20	10.4167	.00005	.00280	21	29	49	42.6136	.00000	.00287
20	60	19	11.3485	.00003	.00283	21	30	48	39.5455	.00000	.00287
20	61	18	12.4167	.00002	.00285	21	31	47	36.6136	.00000	.00287
20	62	17	13.6212	.00001	.00286	21	32	46	33.8182	.00000	.00287
20	63	16	14.9621	.00001	.00287	21	33	45	31.1591	.00000	.00287
20	64	15	16.4394	.00000	.00287	21	34	44	28.6364	.00000	.00287
20	65	14	18.0530	.00000	.00287	21	35	43	26.2500	.00000	.00287
20	66	13	19.8030	.00000	.00287	21	36	42	24.0000	.00000	.00287
20	67	12	21.6894	.00000	.00287	21	37	41	21.8864	.00000	.00287
20	68	11	23.7121	.00000	.00287	21	38	40	19.9091	.00000	.00287
20	69	10	25.8712	.00000	.00287	21	39	39	18.0682	.00000	.00287
20	70	9	28.1667	.00000	.00287	21	40	38	16.3636	.00001	.00288
20	71	8	30.5985	.00000	.00287	21	41	37	14.7955	.00001	.00288
20	72	7	33.1667	.00000	.00287	21	42	36	13.3636	.00003	.00294
20	73	6	35.8712	.00000	.00287	21	43	35	12.0682	.00004	.00298
20	74	5	38.7121	.00000	.00287	21	44	34	10.9091	.00004	.00298
20	75	4	41.6894	.00000	.00287	21	45	33	9.8864	.00004	.00305
20	76	3	44.8030	.00000	.00287	21	46	32	8.9000	.00004	.00314
20	77	2	48.0530	.00000	.00287	21	47	31	8.0500	.00003	.00327
20	78	1	51.4394	.00000	.00287	21	48	30	7.3364	.00003	.00344
20	79	0	54.9621	.00000	.00287	21	49	29	6.7591	.00002	.00364
21	0	78	190.9091	.00000	.00287	21	50	28	6.3182	.00002	.00388
21	1	77	183.8864	.00000	.00287	21	51	27	6.0136	.00002	.00414
21	2	76	177.0000	.00000	.00287	21	52	26	5.8255	.00002	.00441
21	3	75	170.2500	.00000	.00287	21	53	25	5.7364	.00002	.00466
21	4	74	163.6364	.00000	.00287	21	54	24	5.7364	.00002	.00492
21	5	73	157.1591	.00000	.00287	21	55	23	5.8182	.00001	.00514
21	6	72	150.8182	.00000	.00287	21	56	22	6.0136	.00001	.00532
21	7	71	144.6136	.00000	.00287	21	57	21	6.3182	.00001	.00545
21	8	70	138.5455	.00000	.00287	21	58	20	6.7000	.00001	.00555
21	9	69	132.6136	.00000	.00287	21	59	19	7.1664	.00001	.00562
21	10	68	126.8182	.00000	.00287	21	60	18	7.7091	.00000	.00566
21	11	67	121.1691	.00000	.00287	21	61	17	8.3262	.00000	.00568
21	12	66	115.6364	.00000	.00287	21	62	16	9.0136	.00001	.00570
21	13	65	110.2500	.00000	.00287	21	63	15	9.7955	.00001	.00571
21	14	64	105.0000	.00000	.00287	21	64	14	10.6636	.00000	.00571
21	15	63	99.8864	.00000	.00287	21	65	13	11.6182	.00000	.00571
21	16	62	94.9091	.00000	.00287	21	66	12	12.7364	.00000	.00571
21	17	61	90.0682	.00000	.00287	21	67	11	13.9682	.00000	.00571
21	18	60	85.3636	.00000	.00287	21	68	10	15.3000	.00000	.00571
21	19	59	80.7955	.00000	.00287	21	69	9	16.7500	.00000	.00571
21	20	58	76.3636	.00000	.00287	21	70	8	18.3364	.00000	.00571

(6)

TABLE A

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
21	71	7	31.1591	.00000	.00571	22	42	35	11.4394	.00004	.00580
21	72	6	33.8182	.00000	.00571	22	43	34	10.2348	.00007	.00587
21	73	5	35.6136	.00000	.00571	22	44	33	9.1667	.00011	.00599
21	74	4	39.5455	.00000	.00571	22	45	32	8.2348	.00015	.00612
21	75	3	42.6136	.00000	.00571	22	46	31	7.4394	.00021	.00632
21	76	2	45.8182	.00000	.00571	22	47	30	6.7603	.00027	.00660
21	77	1									



TABLE A

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

Table with 13 columns: U, V, W, X2, P(A), CUM P(A), U, V, W, X2, P(A), CUM P(A). Contains 35 rows of numerical data.

(9)

TABLE A

Table with 13 columns: U, V, W, X2, P(A), CUM P(A), U, V, W, X2, P(A), CUM P(A). Contains 35 rows of numerical data.

(10)

TABLE A

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

Table with 13 columns: U, V, W, X2, P(A), CUM P(A), U, V, W, X2, P(A), CUM P(A). Contains 35 rows of numerical data.

(11)

TABLE A

Table with 13 columns: U, V, W, X2, P(A), CUM P(A), U, V, W, X2, P(A), CUM P(A). Contains 35 rows of numerical data.

(12)

TABLE A

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
29	67	3	28.9167	.00000	.22945	30	46	23	.4051	.00717	.26797
29	68	2	31.7576	.00000	.22945	30	47	22	.4773	.00701	.27498
29	69	1	34.7348	.00000	.22945	30	48	21	.6818	.00643	.28141
29	70	0	37.8485	.00000	.22945	30	49	20	1.0227	.00551	.28693
30	0	69	143.6818	.00000	.22945	30	50	19	1.5000	.00441	.29134
30	1	68	138.4773	.00000	.22945	30	51	18	2.1136	.00329	.29462
30	2	67	132.4091	.00000	.22945	30	52	17	2.8636	.00227	.29690
30	3	66	126.4773	.00000	.22945	30	53	16	3.7500	.00146	.29835
30	4	65	120.6818	.00000	.22945	30	54	15	4.7727	.00086	.29922
30	5	64	115.0227	.00000	.22945	30	55	14	5.9318	.00047	.29969
30	6	63	109.5000	.00000	.22945	30	56	13	7.2273	.00024	.29993
30	7	62	104.1136	.00000	.22945	30	57	12	8.6591	.00011	.30003
30	8	61	98.8636	.00000	.22945	30	58	11	10.2273	.00004	.30008
30	9	60	93.7500	.00000	.22945	30	59	10	11.9318	.00002	.30010
30	10	59	88.7727	.00000	.22945	30	60	9	13.7727	.00001	.30010
30	11	58	83.9318	.00000	.22945	30	61	8	15.7500	.00000	.30010
30	12	57	79.2273	.00000	.22945	30	62	7	17.8636	.00000	.30010
30	13	56	74.6591	.00000	.22945	30	63	6	20.1136	.00000	.30010
30	14	55	70.2273	.00000	.22945	30	64	5	22.5000	.00000	.30010
30	15	54	65.9318	.00000	.22945	30	65	4	25.0227	.00000	.30010
30	16	53	61.7727	.00000	.22945	30	66	3	27.6818	.00000	.30010
30	17	52	57.7500	.00000	.22945	30	67	2	30.4773	.00000	.30010
30	18	51	53.8636	.00000	.22945	30	68	1	33.4091	.00000	.30010
30	19	50	50.1136	.00000	.22945	30	69	0	36.4773	.00000	.30010
30	20	49	46.5000	.00000	.22945	31	0	68	140.3030	.00000	.30010
30	21	48	43.0227	.00000	.22945	31	1	67	134.1894	.00000	.30010
30	22	47	39.6818	.00000	.22945	31	2	66	128.2121	.00000	.30010
30	23	46	36.4773	.00000	.22945	31	3	65	122.3712	.00000	.30010
30	24	45	33.4091	.00000	.22945	31	4	64	116.6667	.00000	.30010
30	25	44	30.4773	.00000	.22945	31	5	63	111.0985	.00000	.30010
30	26	43	27.6818	.00000	.22946	31	6	62	105.6667	.00000	.30010
30	27	42	25.0227	.00000	.22946	31	7	61	100.3712	.00000	.30010
30	28	41	22.5000	.00000	.22946	31	8	60	95.2121	.00000	.30010
30	29	40	20.1136	.00000	.22946	31	9	59	90.1894	.00000	.30010
30	30	39	17.8636	.00000	.22946	31	10	58	85.3730	.00000	.30010
30	31	38	15.7500	.00001	.22947	31	11	57	80.5530	.00000	.30010
30	32	37	13.7727	.00002	.22948	31	12	56	75.9394	.00000	.30010
30	33	36	11.9318	.00004	.22952	31	13	55	71.4621	.00000	.30010
30	34	35	10.2273	.00008	.22960	31	14	54	67.1212	.00000	.30010
30	35	34	8.6591	.00016	.22977	31	15	53	62.9167	.00000	.30010
30	36	33	7.2273	.00031	.23008	31	16	52	58.8485	.00000	.30010
30	37	32	5.9318	.00055	.23063	31	17	51	54.9167	.00000	.30010
30	38	31	4.7727	.00093	.23155	31	18	50	51.1212	.00000	.30010
30	39	30	3.7500	.00147	.23302	31	19	49	47.4621	.00000	.30010
30	40	29	2.8636	.00221	.23523	31	20	48	43.9394	.00000	.30010
30	41	28	2.1136	.00312	.23836	31	21	47	40.5530	.00000	.30010
30	42	27	1.5000	.00417	.24252	31	22	46	37.3030	.00000	.30010
30	43	26	1.0227	.00523	.24775	31	23	45	34.1894	.00000	.30010
30	44	25	.6818	.00618	.25393	31	24	44	31.2121	.00000	.30010
30	45	24	.4773	.00687	.26080	31	25	43	28.3712	.00000	.30010

(13)

TABLE A

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
31	26	42	25.6667	.00000	.30010	32	7	60	96.7803	.00000	.37873
31	27	41	23.0985	.00000	.30010	32	8	59	91.7121	.00000	.37873
31	28	40	20.6667	.00000	.30010	32	9	58	86.7803	.00000	.37873
31	29	39	18.3712	.00000	.30011	32	10	57	81.9448	.00000	.37873
31	30	38	16.2121	.00001	.30011	32	11	56	77.3258	.00000	.37873
31	31	37	14.1894	.00001	.30013	32	12	55	72.8030	.00000	.37873
31	32	36	12.3030	.00003	.30016	32	13	54	68.4167	.00000	.37873
31	33	35	10.5530	.00007	.30022	32	14	53	64.1667	.00000	.37873
31	34	34	8.9394	.00014	.30036	32	15	52	60.0530	.00000	.37873
31	35	33	7.4621	.00027	.30063	32	16	51	56.0758	.00000	.37873
31	36	32	6.1212	.00049	.30112	32	17	50	52.2348	.00000	.37873
31	37	31	4.9167	.00085	.30197	32	18	49	48.5303	.00000	.37873
31	38	30	3.8485	.00139	.30336	32	19	48	44.9621	.00000	.37873
31	39	29	2.9167	.00214	.30554	32	20	47	41.5303	.00000	.37873
31	40	28	2.1212	.00310	.30860	32	21	46	38.2348	.00000	.37873
31	41	27	1.4621	.00423	.31263	32	22	45	35.0758	.00000	.37873
31	42	26	.9394	.00544	.31827	32	23	44	32.0530	.00000	.37873
31	43	25	.5530	.00658	.32485	32	24	43	29.1667	.00000	.37873
31	44	24	.3030	.00748	.33233	32	25	42	26.4167	.00000	.37873
31	45	23	.1894	.00798	.34031	32	26	41	23.8030	.00000	.37873
31	46	22	.1212	.00798	.34828	32	27	40	21.3258	.00000	.37873
31	47	21	.7371	.00747	.35575	32	28	39	18.9448	.00000	.37873
31	48	20	.6667	.00653	.36229	32	29	38	16.7803	.00000	.37873
31	49	19	1.0985	.00533	.36762	32	30	37	14.7121	.00001	.37874
31	50	18	1.6667	.00445	.37167	32	31	36	12.7803	.00002	.37877
31	51	17	2.3712	.00286	.37453	32	32	35	10.9448	.00005	.37882
31	52	16	3.2121	.00187	.37641	32	33	34	9.3258	.00011	.37893
31	53	15	4.1894	.00113	.37754	32	34	33	7.8030	.00022	.37915
31	54	14	5.3030	.00063	.37816	32	35	32	6.4167	.00042	.37956
31	55	13	6.5530	.00032	.37848	32	36	31	5.1667	.00074	.38030
31	56	12	7.9394	.00015	.37863	32	37	30	4.0530	.00124	.38154
31	57	11	9.4621	.00006	.37869	32	38	29	3.0758	.00195	.38349
31	58	10	11.1212	.00002	.37872	32	39	28	2.2348	.00291	.38640
31	59	9	12.9167	.00001	.37872	32	40	27	1.5303	.00407	.38947
31	60	8	14.8485	.00000	.37873	32	41	26	.9621	.00536	.39582
31	61	7	16.9167	.00000	.37873	32	42	25	.5303	.00663	.40245
31	62	6	19.1212	.00000	.37873	32	43	24	.2348	.00771	.41017
31	63	5	21.4621	.00000	.37873	32	44	23	.0758	.00841	.41858
31	64	4	23.9394	.00000	.37873	32	45	22	.0530	.00860	.42718
31	65	3	26.5530	.00000	.37873	32	46	21	.1667	.00823	.43540
31	66	2	29.3030	.00000	.37873	32	47	20	.4167	.00735	.44275
31	67	1	32.1894	.00000	.37873	32	48	19	.8030	.00613	.44888
31	68	0	35.2121	.00000	.37873	32	49	18	1.3258	.00475	.45363
32	0	67	136.0758	.00000	.37873	32	50	17	1.9848	.00328	.45735
32	1	66	130.0530	.00000	.37873	32	51	16	2.7803	.00228	.45933
32	2	65	124.1667	.00000	.37873	32	52	15	3.7121	.00140	.46073
32	3	64	118.4167	.00000	.37873	32	53	14	4.7803	.00079	.46153
32	4	63	112.8030	.00000	.37873	32	54	13	5.9848	.00041	.46194
32	5	62	107.3258	.00000	.37873	32	55	12	7.3258	.00019	.46214
32	6	61	101.9848	.00000	.37873	32	56	11	8.8030	.00008	.46222

(14)

TABLE A

CHI SQUARE - F(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
32	57	10	10.4167	.00003	.46225	33	39	27	1.7045	.00370	.47252
32	58	9	12.1667	.00001	.46226	33	40	26	1.0909	.00499	.47751
32	59	8	14.0530	.00000	.46227	33	41	25	.6136	.00633	.48384
32	60	7	15.0758	.00000	.46227	33	42	24	.2727	.00754	.49138
32	61	6	18.2348	.00000	.46227	33	43	23	.0682	.00841	.49979
32	62	5	20.5303	.00000	.46227	33	44	22	0.0000	.00884	.50858
32	63	4	22.9621	.00000	.46227	33	45	21	.0682	.00867	.51718
3											

TABLE A

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
35	56	8	12330301.00001	.70581		36	41	22	.4773	.006848	.73578	37	27	35	14.7348	.00001	.77376
35	57	7	14.1894	.00004	.70581	36	42	21	.4091	.00721	.74299	37	28	34	12.8465	.00004	.77377
35	58	5	16.2121	.00000	.70581	36	43	20	.4773	.00704	.75003	37	29	33	11.0985	.00003	.77381
35	59	5	18.3712	.00000	.70581	36	44	19	.6818	.00640	.75644	37	30	32	9.4448	.00007	.77388
35	60	4	20.6667	.00000	.70581	36	45	18	1.0227	.00541	.76384	37	31	31	8.0076	.00015	.77403
35	61	4	23.1985	.00000	.70581	36	46	17	1.5900	.00423	.76607	37	32	30	6.6667	.00029	.77433
35	62	4	25.8667	.00000	.70581	36	47	16	2.1186	.00306	.76914	37	33	29	5.4621	.00053	.77486
35	63	1	28.3712	.00000	.70581	36	48	15	2.8636	.00209	.77181	37	34	28	4.3939	.00091	.77577
35	64	1	31.2121	.00000	.70581	36	49	14	3.7506	.00125	.77243	37	35	27	3.4621	.00146	.77723
35	65	1	34.2271	.00000	.70581	36	50	13	4.7727	.00071	.77313	37	36	26	2.6667	.00219	.77941
35	66	1	37.4093	.00000	.70581	36	51	12	5.9318	.00036	.77381	37	37	25	2.0676	.00307	.78248
35	67	1	40.7530	.00000	.70581	36	52	11	7.2273	.00016	.77365	37	38	24	1.4648	.00444	.78653
35	68	1	44.1536	.00000	.70581	36	53	10	8.6591	.00007	.77371	37	39	23	1.0985	.00497	.79159
35	69	1	47.6036	.00000	.70581	36	54	9	10.2273	.00003	.77374	37	40	22	.8485	.00572	.79722
35	70	1	51.1036	.00000	.70581	36	55	8	11.9318	.00001	.77375	37	41	21	.7348	.00614	.80336
35	71	1	54.6436	.00000	.70581	36	56	7	13.7727	.00001	.77375	37	42	20	.7576	.00614	.80954
35	72	1	58.2336	.00000	.70581	36	57	6	15.7500	.00000	.77375	37	43	19	.9167	.00671	.81521
35	73	1	61.8636	.00000	.70581	36	58	5	17.8636	.00001	.77375	37	44	18	1.2121	.00493	.82014
35	74	1	65.5336	.00000	.70581	36	59	4	20.1136	.00000	.77375	37	45	17	1.6439	.00395	.82408
35	75	1	69.2436	.00000	.70581	36	60	3	22.5000	.00000	.77375	37	46	16	2.2121	.00292	.82790
35	76	1	73.0036	.00000	.70581	36	61	2	25.0227	.00001	.77375	37	47	15	2.9167	.00199	.82699
35	77	1	76.8136	.00000	.70581	36	62	1	27.6818	.00001	.77375	37	48	14	3.7761	.00124	.83023
35	78	1	80.6736	.00000	.70581	36	63	0	30.4773	.00001	.77375	37	49	13	4.7348	.00071	.83394
35	79	1	84.5836	.00000	.70581	37	0	62	117.2121	.00000	.77375	37	50	12	5.8465	.00037	.83734
35	80	1	88.5436	.00000	.70581	37	1	61	111.6439	.00000	.77375	37	51	11	7.0985	.00017	.84148
35	81	1	92.5536	.00000	.70581	37	2	60	106.2121	.00000	.77375	37	52	10	8.4848	.00007	.84553
35	82	1	96.6136	.00000	.70581	37	3	59	100.9167	.00000	.77375	37	53	9	10.0076	.00003	.84958
35	83	1	100.7236	.00000	.70581	37	4	58	95.7576	.00000	.77375	37	54	8	11.6667	.00001	.85353
35	84	1	104.8836	.00000	.70581	37	5	57	90.7348	.00000	.77375	37	55	7	13.4621	.00000	.85748
35	85	1	109.0936	.00000	.70581	37	6	56	85.8485	.00001	.77375	37	56	6	15.3939	.00000	.86143
35	86	1	113.3536	.00000	.70581	37	7	55	81.0985	.00000	.77375	37	57	5	17.4621	.00000	.86538
35	87	1	117.6636	.00000	.70581	37	8	54	76.4848	.00000	.77375	37	58	4	19.6667	.00000	.86933
35	88	1	122.0136	.00000	.70581	37	9	53	72.0076	.00000	.77375	37	59	3	22.0076	.00000	.87328
35	89	1	126.4036	.00000	.70581	37	10	52	67.6667	.00000	.77375	37	60	2	24.4848	.00000	.87723
35	90	1	130.8336	.00000	.70581	37	11	51	63.4621	.00000	.77375	37	61	1	27.0985	.00000	.88118
35	91	1	135.3036	.00000	.70581	37	12	50	59.3939	.00000	.77375	37	62	0	29.8485	.00000	.88513
35	92	1	139.8136	.00000	.70581	37	13	49	55.4621	.00000	.77375	38	0	61	113.8939	.00000	.88908
35	93	1	144.3636	.00000	.70581	37	14	48	51.6667	.00001	.77375	38	1	60	108.4167	.00000	.89303
35	94	1	148.9536	.00000	.70581	37	15	47	48.0076	.00001	.77375	38	2	59	103.0758	.00000	.89698
35	95	1	153.5836	.00000	.70581	37	16	46	44.4848	.00000	.77375	38	3	58	97.8712	.00000	.90093
35	96	1	158.2536	.00000	.70581	37	17	45	41.0985	.00001	.77375	38	4	57	92.8031	.00000	.90488
35	97	1	162.9636	.00000	.70581	37	18	44	37.8485	.00000	.77375	38	5	56	87.8712	.00000	.90883
35	98	1	167.7136	.00000	.70581	37	19	43	34.7348	.00000	.77375	38	6	55	83.0758	.00000	.91278
35	99	1	172.5036	.00000	.70581	37	20	42	31.7576	.00000	.77375	38	7	54	78.4167	.00000	.91673
35	100	1	177.3336	.00000	.70581	37	21	41	28.9167	.00000	.77375	38	8	53	73.8939	.00000	.92068
35	101	1	182.2036	.00000	.70581	37	22	40	26.2121	.00000	.77375	38	9	52	69.576	.00000	.92463
35	102	1	187.1136	.00000	.70581	37	23	39	23.6439	.00001	.77375	38	10	51	65.2576	.00000	.92858
35	103	1	192.0636	.00000	.70581	37	24	38	21.2121	.00000	.77375	38	11	50	61.1439	.00000	.93253
35	104	1	197.0536	.00000	.70581	37	25	37	18.9167	.00000	.77375	38	12	49	57.1667	.00000	.93648
35	105	1	202.0836	.00000	.70581	37	26	36	16.7576	.00001	.77375	38	13	48	53.3258	.00000	.94043

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TABLE A

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
39	52	5	100.0989	.00000	.87878	39	52	8	11.4545	.00001	.91567	40	41	18	2.4167	.00279	.93565
39	53	7	94.9773	.00000	.87878	39	53	7	13.1591	.00000	.91568	40	42	17	2.7121	.00239	.93604
39	54	6	90.0000	.00000	.87878	39	54	6	15.0000	.00000	.91568	40	43	16	3.1439	.00189	.93643
39	55	5	85.1591	.00000	.87878	39	55	5	16.9773	.00000	.91568	40	44	15	3.7121	.00137	.94131
39	56	4	80.4545	.00000	.87878	39	56	4	19.0909	.00000	.91568	40	45	14	4.4167	.00092	.94222
39	57	3	75.8864	.00000	.87878	39	57	3	21.3469	.00000	.91568	40	46	13	5.2576	.00056	.94276
39	58	2	71.4545	.00000	.87878	39	58	2	23.7273	.00000	.91568	40	47	12	6.2348	.00031	.94309
39	59	1	67.1591	.00000	.87878	39	59	1	26.2500	.00000	.91568	40	48	11	7.3485	.00015	.94324
39	60	0	63.0000	.00000	.87878	39	60	0	28.9051	.00000	.91568	40	49	10	8.5985	.00007	.94331
39	61	0	58.9773	.00000	.87878	40	0	59	107.7121	.00000	.91568	40	50	9	9.9848	.00003	.94334
39	62	0	55.0909	.00000	.87878	40	1	58	102.4167	.00000	.91568	40	51	8	11.5076	.00001	.94335
39	63	0	51.3409	.00000	.87878	40	2	57	97.4576	.00000	.91568	40	52	7	13.1667	.00000	.94335
39	64	0	47.7273	.00000	.87878	40	3	56	92.2348	.00000	.91568	40	53	6	14.9621	.00000	.94335
39	65	0	44.2500	.00000	.87878	40	4	55	87.3485	.00000	.91568	40	54	5	16.8939	.00000	.94335
39	66	0	40.9091	.00000	.87878	40	5	54	82.5985	.00000	.91568	40	55	4	18.9621	.00000	.94335
39	67	0	37.7045	.00000	.87878	40	6	53	77.9848	.00000	.91568	40	56	3	21.3076	.00000	.94335
39	68	0	34.6364	.00000	.87878	40	7	52	73.5076	.00000	.91568	40	57	2	23.5076	.00000	.94335
39	69	0	31.7045	.00000	.87878	40	8	51	69.1667	.00000	.91568	40	58	1	25.9848	.00000	.94335
39	70	0	28.9091	.00000	.87878	40	9	50	64.9621	.00000	.91568	40	59	0	28.5985	.00000	.94335
39	71	0	25.2500	.00000	.87878	40	10	49	60.8939	.00000	.91568	41	0	58	104.8485	.00000	.94335
39	72	0	21.7273	.00000	.87878	40	11	48	56.9621	.00000	.91568	41	1	57	99.6439	.00000	.94335
39	73	0	18.3409	.00000	.87878	40	12	47	53.1667	.00000	.91568	41	2	56	94.5758	.00000	.94335
39	74	0	15.0909	.00000	.87878	40	13	46	49.5076	.00000	.91568	41	3	55	89.6439	.00000	.94335
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TABLE A

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
42	22	35	21.1364	.00000	.96327	43	14	42	41.6667	.00000	.97702
42	23	34	49.1227	.00000	.96327	43	15	41	38.5530	.00000	.97702
42	24	33	17.1455	.00000	.96327	43	16	40	35.5758	.00000	.97702
42	25	32	15.2045	.00000	.96327	43	17	39	32.7348	.00000	.97702
42	26	31	13.5000	.00001	.96328	43	18	38	30.0303	.00000	.97702
42	27	30	11.9318	.00002	.96329	43	19	37	27.4621	.00000	.97702
42	28	29	10.5000	.00004	.96333	43	20	36	25.1333	.00000	.97702
42	29	28	9.2045	.00007	.96340	43	21	35	22.7348	.00000	.97702
42	30	27	8.0455	.00013	.96353	43	22	34	20.5758	.00000	.97702
42	31	26	7.0227	.00023	.96376	43	23	33	18.5530	.00000	.97702
42	32	25	6.1364	.00037	.96414	43	24	32	16.6667	.00000	.97702
42	33	24	5.3864	.00057	.96470	43	25	31	14.9167	.00000	.97702
42	34	23	4.7727	.00080	.96550	43	26	30	13.3030	.00001	.97703
42	35	22	4.2955	.00105	.96655	43	27	29	11.8258	.00002	.97705
42	36	21	3.9545	.00128	.96783	43	28	28	10.4848	.00004	.97708
42	37	20	3.7500	.00146	.96929	43	29	27	9.2803	.00007	.97715
42	38	19	3.6818	.00153	.97082	43	30	26	8.2121	.00012	.97728
42	39	18	3.7500	.00149	.97232	43	31	25	7.2833	.00021	.97748
42	40	17	3.9545	.00134	.97366	43	32	24	6.4848	.00033	.97781
42	41	16	4.2955	.00112	.97478	43	33	23	5.8258	.00047	.97828
42	42	15	4.7727	.00085	.97563	43	34	22	5.3030	.00064	.97892
42	43	14	5.3864	.00059	.97622	43	35	21	4.9167	.00081	.97973
42	44	13	6.1364	.00038	.97660	43	36	20	4.6667	.00094	.98067
42	45	12	7.0227	.00022	.97681	43	37	19	4.5530	.00102	.98169
42	46	11	8.0455	.00011	.97693	43	38	18	4.5758	.00112	.98270
42	47	10	9.2045	.00005	.97698	43	39	17	4.7348	.00094	.98364
42	48	9	10.5000	.00002	.97700	43	40	16	5.0303	.00080	.98444
42	49	8	11.9318	.00001	.97701	43	41	15	5.4621	.00062	.98506
42	50	7	13.5000	.00000	.97701	43	42	14	6.0303	.00044	.98550
42	51	6	15.2045	.00000	.97702	43	43	13	6.7348	.00029	.98579
42	52	5	17.1455	.00000	.97702	43	44	12	7.5758	.00017	.98597
42	53	4	19.3227	.00000	.97702	43	45	11	8.5530	.00009	.98606
42	54	3	21.1364	.00000	.97702	43	46	10	9.6667	.00004	.98610
42	55	2	23.3864	.00000	.97702	43	47	9	10.9167	.00002	.98612
42	56	1	25.7727	.00000	.97702	43	48	8	12.3030	.00001	.98613
42	57	0	28.2955	.00000	.97702	43	49	7	13.8258	.00000	.98613
43	0	36	99.5758	.00000	.97702	43	50	6	15.4848	.00000	.98613
43	1	35	94.5530	.00000	.97702	43	51	5	17.2833	.00000	.98613
43	2	34	89.6667	.00000	.97702	43	52	4	19.2121	.00000	.98613
43	3	33	84.9167	.00000	.97702	43	53	3	21.2833	.00000	.98613
43	4	32	80.3030	.00000	.97702	43	54	2	23.4848	.00000	.98613
43	5	31	75.8258	.00000	.97702	43	55	1	25.8258	.00000	.98613
43	6	30	71.4848	.00000	.97702	43	56	0	28.3030	.00000	.98613
43	7	29	67.2803	.00000	.97702	44	0	55	97.1667	.00000	.98613
43	8	28	63.2121	.00000	.97702	44	1	54	92.2348	.00000	.98613
43	9	27	59.2803	.00000	.97702	44	2	53	87.4394	.00000	.98613
43	10	26	55.4848	.00000	.97702	44	3	52	82.7803	.00000	.98613
43	11	25	51.8258	.00000	.97702	44	4	51	78.2576	.00000	.98613
43	12	24	48.3030	.00000	.97702	44	5	50	73.8712	.00000	.98613
43	13	23	44.9167	.00000	.97702	44	6	49	69.6212	.00000	.98613

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TABLE A

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
44	7	48	65.5076	.00000	.98613	45	1	53	90.6682	.00000	.99193
44	8	47	61.5303	.00000	.98613	45	2	52	85.3636	.00000	.99193
44	9	46	57.6894	.00000	.98613	45	3	51	80.7955	.00000	.99193
44	10	45	53.9848	.00000	.98613	45	4	50	76.3636	.00000	.99193
44	11	44	50.4167	.00000	.98613	45	5	49	72.0682	.00000	.99193
44	12	43	46.9848	.00000	.98613	45	6	48	67.9091	.00000	.99193
44	13	42	43.6894	.00000	.98613	45	7	47	63.8864	.00000	.99193
44	14	41	40.5303	.00000	.98613	45	8	46	60.0000	.00000	.99193
44	15	40	37.5076	.00000	.98613	45	9	45	56.2500	.00000	.99193
44	16	39	34.6212	.00000	.98613	45	10	44	52.6364	.00000	.99193
44	17	38	31.8712	.00000	.98613	45	11	43	49.1591	.00000	.99193
44	18	37	29.2576	.00000	.98613	45	12	42	45.8402	.00000	.99193
44	19	36	26.7803	.00000	.98613	45	13	41	42.6136	.00000	.99193
44	20	35	24.4394	.00000	.98613	45	14	40	39.5455	.00000	.99193
44	21	34	22.2348	.00000	.98613	45	15	39	36.6136	.00000	.99193
44	22	33	20.1667	.00000	.98613	45	16	38	33.8182	.00000	.99193
44	23	32	18.2348	.00000	.98613	45	17	37	31.1591	.00000	.99193
44	24	31	16.4394	.00000	.98613	45	18	36	28.6364	.00000	.99193
44	25	30	14.7803	.00000	.98613	45	19	35	26.2500	.00000	.99193
44	26	29	13.2576	.00001	.98614	45	20	34	24.0000	.00000	.99193
44	27	28	11.8712	.00002	.98616	45	21	33	21.8864	.00000	.99193
44	28	27	10.6212	.00003	.98619	45	22	32	19.9091	.00000	.99193
44	29	26	9.5076	.00006	.98626	45	23	31	18.0682	.00000	.99193
44	30	25	8.5303	.00011	.98637	45	24	30	16.3636	.00000	.99193
44	31	24	7.6894	.00018	.98654	45	25	29	14.7955	.00000	.99193
44	32	23	6.9848	.00027	.98681	45	26	28	13.3636	.00001	.99194
44	33	22	6.4167	.00037	.98718	45	27	27	12.0682	.00002	.99196
44	34	21	5.9848	.00048	.98766	45	28	26	10.9091	.00003	.99199
44	35	20	5.6894	.00058	.98824	45	29	25	9.8864	.00006	.99204
44	36	19	5.5303	.00064	.98888	45	30	24	9.0000	.00009	.99213
44	37	18	5.5076	.00066	.98954	45	31	23	8.2500	.00014	.99228
44	38	17	5.6212	.00062	.99016	45	32	22	7.6364	.00020	.99248
44	39	16	5.8712	.00054	.99071	45	33	21	7.1591	.00027	.99275
44	40	15	6.2576	.00043	.99114	45	34	20	6.8182	.00034	.99309
44	41	14	6.7803	.00032	.99146	45	35	19	6.5136	.00038	.99347
44	42	13	7.4394	.00021	.99167	45	36	18	6.2455	.00041	.99388
44	43	12	8.2348	.00013	.99180	45	37	17	6.0136	.00039	.99428
44	44	11	9.1667	.00007	.99187	45	38	16	5.8182	.00035	.99463
44	45	10	10.2348	.00003	.99190	45	39	15	5.6591	.00029	.99492
44	46	9	11.4394	.00001	.99192	45	40	14	5.5455	.00022	.99514
44	47	8	12.7803	.00001	.99193	45	41	13	5.4800	.00015	.99529
44	48	7	14.2576	.00000	.99193	45	42	12	5.4600	.00009	.99538
44	49	6	15.8712	.00000	.99193	45	43	11	5.4864	.00005	.99543
44	50	5	17.6212	.00000	.99193	45	44	10	5.5600	.00003	.99545
44	51	4	19.5076	.00000	.99193	45	45	9	5.6864	.00001	.99547
44	52	3	21.5303	.00000	.99193	45	46	8	5.8636	.00000	.99547
44	53	2	23.6894	.00000	.99193	45	47	7	6.0955	.00000	.99547
44	54	1	25.9848	.00000	.99193	45	48	6	6.3636	.00000	.99547
44	55	0	28.4167	.00000	.99193	45	49	5	6.6864	.00000	.99547
44	56	54	98.9991	.00000	.99193	45	50	4	7.0600	.00000	.99547

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TABLE A

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
45	51	3	21.8864	.00000	.99547	46	46	7	15.4394	.00000	.99755
45	52	2	24.0000	.00000	.99547	46	47	6	16.9621	.00000	.99755
45	53	1	26.2500	.00000	.99547	46	48	5	18.6212	.00000	.99755
45	54	0	28.6364	.00000	.99547	46	49	4	20.4167	.00000	.99755
45	55	53	92.8030	.00000	.99547	46	50	3	22.3485	.00000	.99755
45	1	52	88.5530	.00000	.99547	46	51	2	24.4167	.00000	.99755
45	2	51	83.4394	.00000	.99547	46	52	1	26.6212	.00000	.99755</

TABLE A

CHI SQUARE - P(1/3), P1(4/5), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
49	37	13	14.5530	.00002	.99966	50	36	13	13.8939	.00001	.99984
49	36	12	13.1212	.00002	.99967	50	37	12	14.4167	.00001	.99984
49	39	11	13.8258	.00001	.99968	50	38	11	15.0758	.00001	.99985
49	4	1	14.6667	.00001	.99969	50	39	10	15.8712	.00000	.99985
49	41	9	13.6439	.00003	.99969	50	40	9	16.8030	.00000	.99986
49	42	8	16.7576	.00000	.99969	50	41	8	17.8712	.00000	.99986
49	43	7	18.0175	.00000	.99969	50	42	7	19.0758	.00000	.99986
49	44	6	19.3939	.00000	.99969	50	43	6	20.4167	.00000	.99986
49	45	5	20.9167	.00000	.99969	50	44	5	21.8939	.00000	.99986
49	46	4	22.5758	.00000	.99969	50	45	4	23.5076	.00000	.99986
49	47	3	24.3712	.00000	.99969	50	46	3	25.2576	.00000	.99986
49	48	2	25.3030	.00000	.99969	50	47	2	27.1439	.00000	.99986
49	49	1	28.3712	.00000	.99969	50	48	1	29.1667	.00000	.99986
49	50	0	30.5758	.00000	.99969	50	49	0	31.3258	.00000	.99986
50	49	83	8.9339	.00000	.99969	51	0	46	84.5455	.00000	.99986
50	1	48	81.5676	.00000	.99969	51	1	47	89.2500	.00000	.99986
50	2	47	77.2576	.00000	.99969	51	2	46	76.0909	.00000	.99986
50	3	46	73.1439	.00000	.99969	51	3	45	72.0682	.00000	.99986
50	4	45	69.1667	.00000	.99969	51	4	44	68.1818	.00000	.99986
50	5	44	65.3258	.00000	.99969	51	5	43	64.4318	.00000	.99986
50	6	43	61.6212	.00000	.99969	51	6	42	60.8182	.00000	.99986
50	7	42	58.0530	.00000	.99969	51	7	41	57.3409	.00000	.99986
50	8	41	54.6212	.00000	.99969	51	8	40	54.0000	.00000	.99986
50	9	40	51.3258	.00000	.99969	51	9	39	50.7955	.00000	.99986
50	10	39	48.1667	.00000	.99969	51	10	38	47.7273	.00000	.99986
50	11	38	45.1439	.00000	.99969	51	11	37	44.7955	.00000	.99986
50	12	37	42.2576	.00000	.99969	51	12	36	42.0000	.00000	.99986
50	13	36	39.5076	.00000	.99969	51	13	35	39.3409	.00000	.99986
50	14	35	36.8939	.00000	.99969	51	14	34	36.8182	.00000	.99986
50	15	34	34.4167	.00000	.99969	51	15	33	34.4318	.00000	.99986
50	16	33	32.0758	.00000	.99969	51	16	32	32.1818	.00000	.99986
50	17	32	29.8712	.00000	.99969	51	17	31	30.0682	.00000	.99986
50	18	31	27.8039	.00000	.99969	51	18	30	28.0909	.00000	.99986
50	19	30	25.8712	.00000	.99969	51	19	29	26.2500	.00000	.99986
50	20	29	24.0758	.00000	.99969	51	20	28	24.5455	.00000	.99986
50	21	28	22.4167	.00000	.99969	51	21	27	22.9773	.00000	.99986
50	22	27	20.8939	.00000	.99969	51	22	26	21.5455	.00000	.99986
50	23	26	19.5076	.00000	.99969	51	23	25	20.2500	.00000	.99986
50	24	25	18.2576	.00000	.99969	51	24	24	19.0909	.00000	.99986
50	25	24	17.1439	.00000	.99969	51	25	23	18.0682	.00000	.99986
50	26	23	16.1667	.00000	.99970	51	26	22	17.1818	.00000	.99986
50	27	22	15.3258	.00000	.99970	51	27	21	16.4318	.00000	.99986
50	28	21	14.6212	.00000	.99971	51	28	20	15.8182	.00000	.99987
50	29	20	14.0530	.00000	.99972	51	29	19	15.3409	.00000	.99987
50	30	19	13.6212	.00000	.99973	51	30	18	15.0000	.00000	.99988
50	31	18	13.3258	.00000	.99975	51	31	17	14.7955	.00000	.99989
50	32	17	13.1667	.00000	.99977	51	32	16	14.7273	.00000	.99990
50	33	16	13.1439	.00000	.99979	51	33	15	14.7955	.00000	.99991
50	34	15	13.2576	.00000	.99981	51	34	14	15.0000	.00000	.99992
50	35	14	13.5076	.00000	.99982	51	35	13	15.3409	.00000	.99992

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TABLE A

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
51	36	12	15.8182	.00000	.99993	52	37	10	18.5985	.00000	.99997
51	37	11	16.4318	.00000	.99993	52	38	9	19.4364	.00000	.99997
51	38	10	17.1818	.00000	.99993	52	39	8	20.4167	.00000	.99997
51	39	9	18.0682	.00000	.99993	52	40	7	21.5330	.00000	.99997
51	40	8	19.0909	.00000	.99994	52	41	6	22.8703	.00000	.99997
51	41	7	20.2500	.00000	.99994	52	42	5	24.1667	.00000	.99997
51	42	6	21.5455	.00000	.99994	52	43	4	25.6894	.00000	.99997
51	43	5	22.9773	.00000	.99994	52	44	3	27.3465	.00000	.99997
51	44	4	24.5455	.00000	.99994	52	45	2	29.1439	.00000	.99997
51	45	3	26.2500	.00000	.99994	52	46	1	31.1758	.00000	.99997
51	46	2	28.0909	.00000	.99994	52	47	0	33.1439	.00000	.99997
51	47	1	30.0682	.00000	.99994	53	0	46	82.3030	.00000	.99997
51	48	0	32.1818	.00000	.99994	53	1	45	78.1894	.00000	.99997
52	0	47	83.3465	.00000	.99994	53	2	44	74.2121	.00000	.99997
52	1	46	79.1439	.00000	.99994	53	3	43	70.3712	.00000	.99997
52	2	45	75.0758	.00000	.99994	53	4	42	66.6667	.00000	.99997
52	3	44	71.1439	.00000	.99994	53	5	41	63.1985	.00000	.99997
52	4	43	67.3465	.00000	.99994	53	6	40	59.6667	.00000	.99997
52	5	42	63.6894	.00000	.99994	53	7	39	56.3712	.00000	.99997
52	6	41	60.1667	.00000	.99994	53	8	38	53.2121	.00000	.99997
52	7	40	56.7803	.00000	.99994	53	9	37	50.1894	.00000	.99997
52	8	39	53.5303	.00000	.99994	53	10	36	47.3030	.00000	.99997
52	9	38	50.4167	.00000	.99994	53	11	35	44.5530	.00000	.99997
52	10	37	47.4394	.00000	.99994	53	12	34	41.9394	.00000	.99997
52	11	36	44.5985	.00000	.99994	53	13	33	39.4621	.00000	.99997
52	12	35	41.8539	.00000	.99994	53	14	32	37.1212	.00000	.99997
52	13	34	39.3258	.00000	.99994	53	15	31	34.9167	.00000	.99997
52	14	33	36.8939	.00000	.99994	53	16	30	32.8485	.00000	.99997
52	15	32	34.5985	.00000	.99994	53	17	29	30.9167	.00000	.99997
52	16	31	32.4394	.00000	.99994	53	18	28	29.1212	.00000	.99997
52	17	30	30.4167	.00000	.99994	53	19	27	27.4621	.00000	.99997
52	18	29	28.5303	.00000	.99994	53	20	26	25.9394	.00000	.99997
52	19	28	26.7803	.00000	.99994	53	21	25	24.5530	.00000	.99997
52	20	27	25.1667	.00000	.99994	53	22	24	23.3030	.00000	.99997
52	21	26	23.6894	.00000	.99994	53	23	23	22.1894	.00000	.99997
52	22	25	22.3465	.00000	.99994	53	24	22	21.2121	.00000	.99997
52	23	24	21.1439	.00000	.99994	53	25	21	20.3712	.00000	.99997
52	24	23	20.0758	.00000	.99994	53	26	20	19.6667	.00000	.99997
52	25	22	19.1439	.00000	.99994	53	27	19	19.0985	.00000	.99997
52	26	21	18.3465	.00000	.99994	53	28	18	18.6667	.00000	.99998
52	27	20	17.6894	.00000	.99994	53	29	17	18.3712	.00000	.99998
52	28	19	17.1667	.00000	.99994	53	30	16	18.2121	.00000	.99998
52	29	18	16.7803	.00000	.99995	53	31	15	18.1894	.00000	.99998
52	30	17	16.5303	.00000	.99995	53	32	14	18.3030	.00000	.99998
52	31	16	16.4167	.00000	.99995	53	33	13	18.5530	.00000	.99999
52	32	15	16.4394	.00000	.99996	53	34	12	18.9394	.00000	.99999
52	33	14	16.5985	.00000	.99996	53	35	11	19.4621	.00000	.99999
52	34	13	16.8939	.00000	.99997	53	36	10	20.1212	.00000	.99999
52	35	12	17.3258	.00000	.99997	53	37	9	20.9167	.00000	.99999
52	36	11	17.8939	.00000	.99997	53	38	8	21.8485	.00000	.99999

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TABLE A

CHI SQUARE - P(1/3), P1(4/5), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(A)
53	39	7	20.9167	.00000	.99999
53	40	6	24.1212	.00000	.99999
53	41	5	23.4621	.00000	.99999
53	42	4	26.9394	.00000	.99999
53	43	3	28.5530	.00000	.99999
53	44	2	30.3030	.00000	.99999
53	45	1	32.1894	.00000	.99999
53	46	0	34.2121	.00000	.99999
54	0	40	81.4091	.00000	.99999
54	1	44	77.3864	.00000	.99999
54	2	43	73.5000	.00000	.99999
54	3	42	69.7500	.00000	.99999
54	4	41	66.1364	.00000	.99999
5					

TABLE B

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
33	44	22	6.0060	0.0680	0.0880	29	45	25	.9167	0.0549	.36214
34	43	22	0.5300	0.0854	0.1733	35	46	18	.9394	0.0564	.36778
32	45	22	0.5300	0.0860	0.2593	31	42	26	.9394	0.0564	.37322
33	45	21	0.6820	0.0860	0.3453	34	47	18	.9621	0.0560	.37882
33	43	23	0.6620	0.0841	0.4294	32	41	26	.9621	0.0536	.38418
34	44	21	0.7580	0.0854	0.5148	36	45	18	1.0227	0.0541	.38958
32	44	23	0.7580	0.0841	0.5989	36	39	24	1.0227	0.0511	.39470
34	42	23	1.6670	0.0798	0.6787	30	49	20	1.0227	0.0551	.40021
32	46	21	1.6670	0.0825	0.7610	30	43	26	1.0227	0.0523	.40544
33	43	21	1.8940	0.0825	0.8415	33	48	16	1.0909	0.0529	.41073
31	45	23	1.8940	0.0798	0.9212	33	40	26	1.0909	0.0499	.41572
35	42	22	2.1210	0.0767	0.9999	37	39	23	1.0985	0.0497	.42069
31	46	22	2.1210	0.0798	1.0797	29	49	21	1.0985	0.0525	.42594
34	45	23	2.3480	0.0771	1.1593	35	39	25	1.0985	0.0491	.43085
32	43	24	2.3480	0.0771	1.2365	31	49	19	1.0985	0.0533	.43618
33	46	20	2.7270	0.0785	1.3150	38	41	20	1.1439	0.0509	.44127
33	42	24	2.7270	0.0754	1.3903	28	47	24	1.1439	0.0491	.44619
31	44	26	3.0300	0.0768	1.4672	38	40	21	1.1667	0.0497	.45115
31	44	24	3.0300	0.0748	1.5419	28	48	23	1.1667	0.0491	.45607
35	41	23	3.7120	0.0718	1.6138	37	44	18	1.2121	0.0493	.46100
31	47	21	3.7120	0.0747	1.6884	29	44	26	1.2121	0.0476	.46575
35	42	21	4.0910	0.0721	1.7605	38	42	16	1.2576	0.0485	.47060
30	46	23	4.0910	0.0717	1.8322	28	46	25	1.2576	0.0462	.47522
34	41	24	4.1670	0.0698	1.9020	38	39	22	1.3258	0.0452	.47974
32	47	20	4.1670	0.0798	1.9755	34	39	26	1.3258	0.0440	.48414
35	43	20	4.7730	0.0704	2.0460	32	49	18	1.3258	0.0475	.48889
35	41	22	4.7730	0.0688	2.1148	28	49	22	1.3258	0.0461	.49350
30	47	22	4.7730	0.0711	2.1849	35	47	17	1.4621	0.0432	.49782
30	45	24	4.7730	0.0687	2.2536	31	41	27	1.4621	0.0423	.50206
34	46	19	5.3030	0.0639	2.3229	37	38	24	1.4848	0.0404	.50610
32	42	25	5.3030	0.0663	2.3892	29	50	20	1.4848	0.0441	.51051
35	40	19	5.5300	0.0683	2.4573	36	46	17	1.5000	0.0423	.51474
31	43	25	5.5300	0.0658	2.5235	36	38	25	1.5000	0.0399	.51873
35	47	19	6.1360	0.0668	2.5920	30	50	19	1.5000	0.0441	.52313
33	41	25	6.1360	0.0633	2.6535	35	42	27	1.5000	0.0417	.52730
35	40	24	6.6670	0.0613	2.7148	38	43	18	1.5976	0.0428	.53158
31	48	20	6.6670	0.0653	2.7801	28	45	26	1.5976	0.0409	.53567
36	42	20	6.8180	0.0613	2.8415	34	48	17	1.5303	0.0420	.53987
30	48	21	6.8180	0.0643	2.9058	32	40	27	1.5303	0.0407	.54394
35	44	19	6.8180	0.0640	2.9698	38	38	23	1.6212	0.0383	.54777
30	44	25	6.8180	0.0618	3.0316	28	50	21	1.6212	0.0406	.55182
37	41	21	7.3480	0.0614	3.0930	39	40	21	1.6364	0.0401	.55584
29	47	23	7.3480	0.0610	3.1540	27	48	24	1.6364	0.0382	.55966
37	42	20	7.5760	0.0614	3.2154	37	45	17	1.6439	0.0395	.56360
29	46	24	7.5760	0.0597	3.2751	29	42	27	1.6439	0.0387	.56748
34	42	25	8.0300	0.0573	3.3324	35	39	26	1.6667	0.0368	.57116
32	48	15	8.0300	0.0613	3.3936	31	50	18	1.6667	0.0405	.57521
37	40	22	8.8850	0.0572	3.4508	39	35	21	1.7045	0.0382	.57903
29	48	22	8.8850	0.0585	3.5093	27	49	23	1.7045	0.0374	.58278
37	43	19	9.1670	0.0571	3.5664	39	41	19	1.7045	0.0391	.58669

(1)

TABLE B

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
33	49	17	1.7045	0.0389	.59058	26	46	27	2.7121	0.0221	.73722
33	39	27	1.7045	0.0370	.59428	39	36	24	2.7273	0.0216	.73938
27	47	25	1.7045	0.0367	.59795	27	52	20	2.7273	0.0240	.74178
38	44	17	1.8939	0.0350	.60145	39	44	16	2.7273	0.0229	.74477
28	44	27	1.8939	0.0340	.60485	27	44	28	2.7273	0.0227	.74634
39	42	18	1.9091	0.0354	.60840	34	37	28	2.7803	0.0216	.74850
39	38	22	1.9091	0.0339	.61178	32	51	15	2.7803	0.0228	.75078
27	50	22	1.9091	0.0344	.61523	36	48	15	2.8636	0.0204	.75282
27	46	26	1.9091	0.0332	.61854	27	46	27	2.8636	0.0200	.75482
34	38	27	1.9848	0.0318	.62172	33	52	17	2.8636	0.0227	.75709
32	50	17	1.9848	0.0342	.62514	30	40	29	2.8636	0.0221	.75930
37	37	25	2.0076	0.0307	.62822	41	39	13	2.9167	0.0220	.76150
29	51	19	2.0076	0.0346	.63167	37	47	13	2.9167	0.0199	.76349
38	37	24	2.0076	0.0333	.63477	35	49	15	2.9167	0.0203	.76549
28	51	20	2.0530	0.0334	.63805	31	39	29	2.9167	0.0214	.76762
36	47	16	2.1136	0.0366	.64111	29	41	29	2.9167	0.0215	.76978
36	37	26	2.1136	0.0291	.64402	25	49	25	2.9167	0.0195	.77172
30	51	18	2.1136	0.0329	.64731	41	38	20	2.9394	0.0215	.77387
30	41	28	2.1136	0.0312	.65043	25	50	24	2.9394	0.0195	.77582
35	48	16	2.1212	0.0366	.65349	40	35	23	2.9848	0.0194	.77776
31	40	28	2.1212	0.0310	.65659	26	52	21	2.9848	0.0206	.77982
37	46	16	2.1212	0.0292	.65951	41	40	18	3.0303	0.0209	.78191
29	42	28	2.1212	0.0298	.66248	25	49	25	3.0303	0.0183	.78374
40	39	20	2.2348	0.0361	.66549	36	45	15	3.0758	0.0184	.78558
26	49	24	2.2348	0.0281	.66830	34	50	15	3.0758	0.0187	.78745
34	49	16	2.2348	0.0292	.67121	32	38	29	3.0758	0.0195	.78940
32	39	28	2.2348	0.0291	.67412	28	42	29	3.0758	0.0198	.79139
39	37	23	2.2500	0.0280	.67692	41	37	21	3.0985	0.0194	.79333
27	51	21	2.2500	0.0297	.67989	25	51	23	3.0985	0.0185	.79516
39	43	17	2.2500	0.0296	.68285	40	43	15	3.1439	0.0189	.79715
27	45	27	2.2500	0.0282	.68568	26	45	28	3.1439	0.0182	.79887
40	40	19	2.2576	0.0301	.68869	35	35	28	3.2121	0.0171	.80058
26	48	25	2.2576	0.0275	.69144	31	52	16	3.2121	0.0187	.80245
40	38	21	2.3485	0.0279	.69423	41	41	17	3.2803	0.0184	.80429
26	50	23	2.3485	0.0270	.69693	25	47	27	3.2803	0.0163	.80592
35	37	27	2.3712	0.0259	.69952	38	35	26	3.3258	0.0155	.80747
31	51	17	2.3712	0.0286	.70238	28	53	18	3.3258	0.0184	.80931
40	41	18	2.4167	0.0279	.70517	39	45	15	3.3409	0.0163	.81094
38	45	16	2.4167	0.0265	.70782	27	43	29	3.3409	0.0172	.81266
28	43	28	2.4167	0.0268	.71049	39	35	25	3.3409	0.0155	.81442
26	47	26	2.4167	0.0254	.71303	33	51	15	3.3409	0.0166	.81588
33	50	18	2.4545	0.0264	.71566	33	37	29	3.3409	0.0169	.81756
33	38	28	2.4545	0.0257	.71825	27	53	19	3.3409	0.0181	.81937
40	37	22	2.5985	0.0241	.72066	41	36	22	3.3939	0.0163	.82101
26	51	22	2.5985	0.0243	.72309	25	52	22	3.3939	0.0162	.82263
38	36	25	2.6212	0.0224	.72534	37	35	27	3.4621	0.0146	.82448
28	52	19	2.6212	0.0257	.72791	29	53	17	3.4621	0.0172	.82580
37	36	26	2.6667	0.0219	.73039	41	35	24	3.5076	0.0146	.82726
29	52	18	2.6667	0.0253	.73262	26	53	20	3.5076	0.0163	.82889
40	42	17	2.7121	0.0239	.73541	41	42	15	3.6667	0.0149	.83037

(2)

TABLE B

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
25	46	28	3.6667	0.0517	.83174	29	54	16	4.3939	0.0108	.89242
42	38	19	3.6818	0.0515	.83328	43	45	14	4.4167	0.0092	.89333
29	50	25	3.6818	0.0530	.83457	26	43	30	4.4167	0.0103	.89437
40	44	15	3.7121	0.0517	.83595	43	37	19	4.5530	0.0102	.89538
34	36	29	3.7121	0.0538	.83733	23	51	25	4.5530	0.0081	.89620
32	52	15	3.712								

TABLE B

CHI SQUARE - P(1/3), P1(4/9), P2(2/9)5 N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
29	37	33	7.0985	.00033	.97178	25	58	16	8.0303	.00019	.98199	19	53	27	8.9167	.00007	.98847	19	57	23	9.8258	.00005	.99262	46	41	12	9.8712	.00006	.99268
45	33	21	7.1591	.00027	.97206	42	46	11	8.0455	.00011	.98211	47	34	18	8.9394	.00013	.98860	46	41	12	9.8712	.00006	.99268						
39	49	11	7.1591	.00017	.97222	24	42	33	8.0455	.00020	.98236	19	54	26	8.9394	.00007	.98860	21	47	32	9.8712	.00006	.99274						
27	39	33	7.1591	.00032	.97255	42	30	27	8.0455	.00013	.98243	35	54	10	8.9394	.00006	.98867	45	43	11	9.8864	.00005	.99279						
21	55	23	7.1591	.00021	.97276	24	58	17	8.0455	.00019	.98262	31	34	34	8.9394	.00014	.98887	45	29	25	9.8864	.00006	.99284						
45	39	15	7.1591	.00029	.97305	46	33	20	8.0530	.00019	.98281	46	31	22	8.9621	.00011	.98898	39	51	9	9.8864	.00003	.99293						
39	31	29	7.1591	.00021	.97327	20	55	24	8.0530	.00013	.98293	20	57	22	8.9621	.00009	.98907	39	29	31	9.8864	.00007	.99300						
27	57	15	7.1591	.00028	.97355	46	38	15	8.1667	.00014	.98312	45	30	24	9.0000	.00009	.98916	27	59	13	9.8864	.00010	.99310						
21	49	29	7.1591	.00024	.97376	40	30	29	8.1667	.00012	.98324	21	58	20	9.0000	.00010	.98926	27	37	35	9.8864	.00010	.99316						
36	52	11	7.2273	.00016	.97392	26	58	15	8.1667	.00018	.98342	45	42	12	9.0000	.00009	.98935	21	59	19	9.8864	.00007	.99323						
35	32	31	7.2273	.00023	.97416	21	50	29	8.1667	.00011	.98353	21	46	32	9.0000	.00010	.98944	21	49	33	9.8864	.00007	.99326						
30	56	13	7.2273	.00024	.97439	43	30	26	8.2121	.00012	.98365	47	36	16	9.0303	.00013	.98957	38	52	9	9.8939	.00003	.99326						
30	36	33	7.2273	.00031	.97470	23	58	18	8.2121	.00017	.98382	19	52	28	9.0303	.00007	.98964	28	36	35	9.8939	.00010	.99339						
43	31	25	7.2803	.00021	.97491	44	43	12	8.2348	.00013	.98395	47	33	19	9.0985	.00012	.98976	40	50	9	9.9848	.00003	.99348						
23	57	19	7.2803	.00025	.97516	22	45	32	8.2348	.00015	.98410	19	55	25	9.0985	.00007	.98983	26	38	35	9.9848	.00010	.99358						
34	33	32	7.3258	.00025	.97541	45	31	23	8.2500	.00014	.98424	46	40	13	9.1667	.00010	.98993	37	53	9	10.0376	.00003	.99351						
32	55	12	7.3258	.00019	.97560	21	57	21	8.2500	.00014	.98438	20	48	31	9.1667	.00008	.99000	29	35	35	10.0076	.00009	.99367						
40	48	11	7.3485	.00015	.97576	45	41	13	8.2500	.00015	.98453	44	44	11	9.1667	.00007	.99007	47	39	13	10.1894	.00006	.99369						
25	40	33	7.3485	.00029	.97605	33	55	11	8.2500	.00011	.98463	22	44	33	9.1667	.00010	.99017	41	49	9	10.1894	.00003	.99378						
42	42	13	7.4394	.00021	.97626	33	33	33	8.2500	.00017	.98480	42	47	10	9.2045	.00005	.99023	25	39	35	10.1894	.00009	.99382						
22	46	31	7.4394	.00021	.97647	21	47	31	8.2500	.00013	.98493	42	29	28	9.2045	.00007	.99030	19	49	31	10.1894	.00004	.99386						
35	53	11	7.4621	.00015	.97662	38	51	10	8.4167	.00008	.98501	24	49	16	9.2045	.00011	.99040	46	34	17	10.2273	.00007	.99389						
31	35	33	7.4621	.00027	.97689	28	37	34	8.4167	.00019	.98520	24	51	34	9.2045	.00012	.99053	36	30	33	10.2273	.00005	.99395						
38	31	30	7.5076	.00019	.97707	46	32	21	8.4394	.00015	.98535	47	37	15	9.2803	.00011	.99064	30	58	11	10.2273	.00004	.99399						
23	57	14	7.5076	.00023	.97730	20	56	23	8.4394	.00011	.98545	43	29	27	9.2803	.00007	.99071	18	54	27	10.2273	.00003	.99403						
43	44	12	7.5758	.00017	.97747	39	50	10	8.4545	.00017	.98553	23	59	17	9.2803	.00010	.99081	36	54	9	10.2273	.00003	.99405						
23	44	32	7.5758	.00022	.97769	39	30	30	8.4545	.00011	.98564	19	51	29	9.2803	.00006	.99087	3	34	35	10.2273	.00008	.99413						
43	40	14	7.6364	.00022	.97791	27	58	14	8.4545	.00015	.98578	41	29	29	9.2803	.00007	.99094	44	45	10	10.2348	.00003	.99417						
40	32	22	7.6364	.00020	.97811	27	58	34	8.4545	.00019	.98597	25	59	15	9.2803	.00010	.99104	22	43	34	10.2348	.00007	.99423						
21	56	22	7.6364	.00018	.97829	37	52	16	8.4848	.00007	.98604	34	55	10	9.3258	.00005	.99109	48	35	16	10.2955	.00007	.99431						
21	48	30	7.6364	.00017	.97846	27	36	34	8.4848	.00018	.98623	32	33	34	9.3258	.00011	.99120	48	33	18	10.2955	.00007	.99438						
41	47	11	7.6439	.00014	.97859	44	30	25	8.5303	.00011	.98634	47	32	20	9.3939	.00010	.99130	18	55	26	10.2955	.00003	.99444						
23	41	33	7.6439	.00025	.97884	22	58	19	8.5303	.00013	.98647	19	56	24	9.3939	.00006	.99136	18	53	29	10.2955	.00003	.99444						
45	35	18	7.6894	.00024	.97908	43	45	11	8.5530	.00009	.98656	35	31	33	9.4621	.00008	.99144	47	30	22	10.3939	.00005	.99449						
44	31	24	7.6894	.00018	.97926	23	43	33	8.5530	.00015	.98671	31	57	11	9.4621	.00006	.99151	19	58	22	10.3939	.00004	.99453						
22	57	24	7.6894	.00020	.97945	46	39	14	8.5985	.00014	.98685	37	30	32	9.4848	.00007	.99158	46	29	24	10.4167	.00004	.99458						
20	53	26	7.6894	.00014	.97959	40	49	10	8.5985	.00007	.98692	29	58	12	9.4848	.00007	.99165	20	59	20	10.4167	.00005	.99463						
45	36	17	7.7121	.00024	.97983	26	39	34	8.5985	.00017	.98709	44	29	26	9.5076	.00006	.99172	38	29	32	10.4167	.00004	.99467						
20	52	27	7.7121	.00014	.97997	20	49	30	8.5985	.00010	.98725	40	29	30	9.5076	.00006	.99176	34	31	34	10.4167	.00006	.99473						
45	34	19	7.8030	.00022	.98019	36	53	10	8.6551	.00007	.98735	26	59	14	9.5076	.00009	.99187	32	57	10	10.4167	.00003	.99476						
34	54	11	7.8030	.00013	.98032	36	31	32	8.6591	.00012	.98737	22	59	18	9.5076	.00009	.99196	28	59	12	10.4167	.00005	.99481						
32	34	33	7.8030	.00022	.98054	30	57	12	8.6591	.00011	.98748	46	30	23	9.6212	.00007	.99203	43	28	8	10.4848	.00004	.99484						
20	54	25	7.8030	.00014	.98068	30	35	34	8.6591	.00016	.98764	20	58	21	9.6212	.00007	.99209	23	60	16	10.4848	.00006	.99490						
45	37	16	7.8712	.00022	.98090	34	32	33	8.8030	.00008	.98777	47	38	14	9.6667	.00009	.99218	48	36	15	10.5000	.00006	.99497						
23	51	28	7.8712	.00013	.98103	32	56	11	8.8030	.00015	.98792	43	46	10	9.6667	.00004	.99223	48	32	19	10.5000	.00006	.99503						
33	32	32	7.9394	.00018	.98120	41	48	10	8.8485	.00006	.98791	23	42	34	9.6667	.00009	.99232	18	56	25	10.5000	.00003	.99516						
31	56	12	7.9394	.00015	.98135	25	40	34	8.8485	.00015	.98806	19	50	30	9.6667	.00005	.99237	18	52	29	10.5000	.00003	.99519						
37	31	31	8.0076	.00015	.98150	38	30	31	8.8939	.00009	.98815	33	56	10	9.8182	.00004	.99241	42	48	9	10.5000	.00002	.99511						
29	57	13	8.0076	.00017	.98167	28	58	13	8.8939	.00011	.98826	33	32	34	9.8182	.00008	.99249	42	28	29	10.5000	.00004	.99514						
41	30	28	8.0303	.00013	.98180	47	35	17	8.9167	.00014	.98840	47	31	21	9.8258	.00007	.99257	24	60	15	10.5000	.00006	.99520						

(5)

(6)

TABLE B

CHI SQUARE - P(1/3), P1(4/9), P2(2/9)5 N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)						
24	46	35	10.5000	.00007	.99527	47	41	11	11.6439	.00002	.99697	23	40	36	12.3030	.00003	.99806	23	62	14	13.3030	.00001	.99874	49	30	20	12.3939	.00002	.99809	50	31	18	13.3258	.00002	.99876
55	59	10	10.5530	.00002	.99530	19	47	33	11.6439	.00002	.99699	49	30	20	12.3939	.00002	.99810	16	57	25	13.3258	.00001	.99876												
31	33	35	10.5530	.00007	.99536	17	55	27	11.6439	.00001	.99700	17	58	24	12.3939	.00001	.99811	45	46	8	13.3636	.00006	.99877												
43	28	27	10.6212	.00003	.99540	49	34	16	11.6667	.00004	.99704	46	27	26	12.4167	.00001	.99815	45	46	8															

TABLE B

CHI SQUARE - P(1/3) P(4/9) P(2/29) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
20	43	36	14.6530	.00000	.99919	15	54	30	15.0000	.00000	.99947
35	57	7	14.6189	.00000	.99920	39	54	6	15.0000	.00000	.99947
31	31	37	14.1894	.00000	.99921	27	34	38	15.0000	.00000	.99948
44	48	7	14.2576	.00000	.99921	41	52	6	15.0303	.00000	.99948
22	40	37	14.2576	.00000	.99922	25	36	38	15.0303	.00000	.99949
40	26	33	14.3485	.00000	.99923	50	38	11	15.0758	.00000	.99950
25	62	11	14.3485	.00000	.99924	16	50	33	15.0758	.00000	.99950
43	27	23	14.3712	.00000	.99924	38	55	6	15.1439	.00000	.99950
17	61	216	14.3712	.00000	.99925	28	33	38	15.1439	.00000	.99951
53	37	126	14.4167	.00000	.99926	42	51	6	15.2045	.00000	.99951
15	51	326	14.4167	.00000	.99926	42	25	32	15.2045	.00000	.99951
48	42	9	14.5909	.00000	.99926	24	63	12	15.2045	.00000	.99952
48	26	25	14.5909	.00000	.99927	24	37	38	15.2045	.00000	.99953
19	62	196	14.5909	.00000	.99927	47	25	27	15.2803	.00000	.99953
19	46	35	14.5909	.00000	.99928	19	53	17	15.2803	.00000	.99954
55	28	21	14.6212	.00000	.99929	49	26	24	15.3030	.00000	.99954
15	60	23	14.6212	.00000	.99929	17	62	20	15.3030	.00000	.99954
49	40	10	14.6667	.00000	.99930	50	27	22	15.3258	.00000	.99955
17	48	346	14.6667	.00000	.99930	16	61	22	15.3258	.00000	.99955
34	56	7	14.7121	.00000	.99933	51	35	13	15.3409	.00000	.99956
32	30	37	14.7121	.00000	.99933	51	29	19	15.3409	.00000	.99956
51	32	166	14.7273	.00000	.99932	15	59	25	15.3409	.00000	.99957
15	56	28	14.7273	.00000	.99932	15	53	31	15.3409	.00000	.99957
37	27	35	14.7348	.00000	.99933	33	59	7	15.3409	.00000	.99957
27	61	9	14.7348	.00000	.99933	33	29	37	15.3409	.00000	.99957
44	25	30	14.7863	.00000	.99934	37	56	6	15.3939	.00000	.99958
22	63	146	14.7863	.00000	.99934	29	32	38	15.3939	.00000	.99958
51	33	15	14.7955	.00000	.99935	46	46	7	15.4394	.00000	.99959
15	55	29	14.7955	.00000	.99935	42	42	37	15.4394	.00000	.99959
51	31	17	14.7955	.00000	.99935	43	50	6	15.4848	.00000	.99959
43	47	7	14.7955	.00000	.99937	23	36	38	15.4848	.00000	.99960
45	25	29	14.7955	.00000	.99937	49	41	9	15.6439	.00000	.99960
21	63	15	14.7955	.00000	.99938	41	25	33	15.6439	.00000	.99961
21	41	37	14.7955	.00000	.99939	25	63	11	15.6439	.00000	.99961
15	57	27	14.7955	.00000	.99939	17	47	35	15.6439	.00000	.99961
47	44	8	14.8485	.00000	.99939	48	42	8	15.7500	.00000	.99962
35	28	36	14.8485	.00000	.99940	48	25	26	15.7500	.00000	.99962
31	60	8	14.8485	.00000	.99940	36	27	36	15.7500	.00000	.99962
19	44	36	14.8485	.00000	.99941	30	61	8	15.7500	.00000	.99962
43	25	31	14.9167	.00000	.99941	18	63	18	15.7500	.00000	.99963
23	63	13	14.9167	.00000	.99942	18	45	36	15.7500	.00000	.99963
46	25	28	14.9621	.00000	.99942	35	57	5	15.7500	.00000	.99963
20	63	16	14.9621	.00000	.99943	37	31	38	15.7500	.00000	.99964
40	53	6	14.9621	.00000	.99943	38	26	35	15.8030	.00000	.99964
25	35	38	14.9621	.00000	.99944	28	62	9	15.8030	.00000	.99964
51	34	14	15.0000	.00000	.99945	51	36	12	15.8182	.00000	.99965
51	30	18	15.0000	.00000	.99945	51	28	20	15.8182	.00000	.99965
39	26	34	15.0000	.00000	.99946	15	60	24	15.8182	.00000	.99965
27	62	10	15.0000	.00000	.99946	15	52	32	15.8182	.00000	.99966
15	58	26	15.0000	.00000	.99946	50	35	10	15.8712	.00000	.99966

(9)

TABLE B

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
16	49	34	15.8712	.00000	.99966	46	49	6	15.8712	.00000	.99966
44	49	6	15.8712	.00000	.99966	22	39	38	15.8712	.00000	.99967
22	39	38	15.8712	.00000	.99967	34	28	37	16.0758	.00000	.99967
32	60	7	16.0758	.00000	.99967	50	26	23	16.1667	.00000	.99968
50	26	23	16.1667	.00000	.99968	16	62	21	16.1667	.00000	.99968
16	62	21	16.1667	.00000	.99968	47	45	7	16.1894	.00000	.99968
47	45	7	16.1894	.00000	.99968	19	43	37	16.1894	.00000	.99966
19	43	37	16.1894	.00000	.99966	35	58	6	16.2121	.00000	.99968
35	58	6	16.2121	.00000	.99968	31	30	38	16.2121	.00000	.99969
31	30	38	16.2121	.00000	.99969	46	25	34	16.2348	.00000	.99969
46	25	34	16.2348	.00000	.99969	26	63	10	16.2348	.00000	.99969
26	63	10	16.2348	.00000	.99969	45	48	6	16.3636	.00000	.99969
45	48	6	16.3636	.00000	.99969	45	24	30	16.3636	.00000	.99969
45	24	30	16.3636	.00000	.99970	21	64	14	16.3636	.00000	.99970
21	64	14	16.3636	.00000	.99970	21	40	38	16.3636	.00000	.99970
21	40	38	16.3636	.00000	.99970	49	25	25	16.3712	.00000	.99970
49	25	25	16.3712	.00000	.99970	17	63	19	16.3712	.00000	.99971
17	63	19	16.3712	.00000	.99971	52	31	16	16.4167	.00000	.99971
52	31	16	16.4167	.00000	.99971	14	57	28	16.4167	.00000	.99971
14	57	28	16.4167	.00000	.99971	51	37	11	16.4318	.00000	.99972
51	37	11	16.4318	.00000	.99972	15	61	23	16.4318	.00000	.99972
15	61	23	16.4318	.00000	.99972	15	51	33	16.4318	.00000	.99972
15	51	33	16.4318	.00000	.99972	52	32	15	16.4394	.00000	.99972
52	32	15	16.4394	.00000	.99972	44	24	29	16.4394	.00000	.99973
44	24	29	16.4394	.00000	.99973	44	24	31	16.4394	.00000	.99973
44	24	31	16.4394	.00000	.99973	22	64	13	16.4394	.00000	.99973
22	64	13	16.4394	.00000	.99973	20	64	15	16.4394	.00000	.99973
20	64	15	16.4394	.00000	.99973	14	56	29	16.4394	.00000	.99974
14	56	29	16.4394	.00000	.99974	52	30	17	16.5303	.00000	.99974
52	30	17	16.5303	.00000	.99974	14	58	27	16.5303	.00000	.99974
14	58	27	16.5303	.00000	.99974	52	33	14	16.5985	.00000	.99974
52	33	14	16.5985	.00000	.99974	14	55	30	16.5985	.00000	.99974
14	55	30	16.5985	.00000	.99974	47	24	28	16.6667	.00000	.99975
47	24	28	16.6667	.00000	.99975	43	24	32	16.6667	.00000	.99975
43	24	32	16.6667	.00000	.99975	23	64	12	16.6667	.00000	.99975
23	64	12	16.6667	.00000	.99975	19	64	16	16.6667	.00000	.99975
19	64	16	16.6667	.00000	.99975	49	42	8	16.7576	.00000	.99975
49	42	8	16.7576	.00000	.99975	37	26	36	16.7576	.00000	.99976
37	26	36	16.7576	.00000	.99976	29	62	8	16.7576	.00000	.99976
29	62	8	16.7576	.00000	.99976	17	46	36	16.7576	.00000	.99976
17	46	36	16.7576	.00000	.99976	52	29	18	16.7803	.00000	.99976
52	29	18	16.7803	.00000	.99976	14	59	26	16.7803	.00000	.99976
14	59	26	16.7803	.00000	.99976	34	59	6	16.7803	.00000	.99977
34	59	6	16.7803	.00000	.99977	32	29	38	16.7803	.00000	.99977
32	29	38	16.7803	.00000	.99977	50	40	9	16.8030	.00000	.99977
50	40	9	16.8030	.00000	.99977	16	48	35	16.8030	.00000	.99977
16	48	35	16.8030	.00000	.99977	52	34	13	16.8939	.00000	.99977

(10)

TABLE B

CHI SQUARE - P(1/3) P(4/9) P(2/29) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
35	26	37	17.8636	.00000	.99986	37	25	37	18.9167	.00000	.99991
33	62	7	17.8636	.00000	.99986	29	63	7	18.9167	.00000	.99991
30	30	39	17.8636	.00000	.99986	49	23	27	18.9167	.00000	.99991
50	41	8	17.67126	.00000	.99986	17	65	17	18.9167	.00000	.99991
33	25	36	17.8712	.00000	.99986	53	34	12	18.9394	.00000	.99991
26	63	8	17.8712	.00000	.99986	41	54	4	18.9394	.00000	.99991
16	47	36	17.8712	.00000	.99986	25	34	40	18.9394	.00000	.99991
52	36	11	17.8939	.00000	.99987	40	55	4	18.9621	.00000	.99991
14	52	33	17.8939	.00000	.99987	26	33	40	18.9621	.00000	.9999



TABLE B  
CHI SQUARE - P(1/3), P(4/9), P(2(2/9)) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
19	67	14	21.7500	.00000	.99999	31	27	41	23.0985	.00000	.99999
19	41	40	21.7500	.00000	.99999	53	22	24	23.3030	.00000	.99999
53	38	0	21.8485	.00000	.99999	54	23	22	23.3864	.00000	.99999
41	22	36	21.8485	.00000	.99999	42	55	2	23.3864	.00000	.99999
25	66	8	21.8485	.00000	.99999	42	21	36	23.3864	.00000	.99999
43	21	33	21.8864	.00000	.99999	24	67	0	23.3864	.00000	.99999
21	67	11	21.8864	.00000	.99999	24	33	42	23.3864	.00000	.99999
45	51	3	21.8864	.00000	.99999	41	56	2	23.3939	.00000	.99999
21	37	41	21.8864	.00000	.99999	25	31	42	23.3939	.00000	.99999
50	44	5	21.8939	.00000	.99999	43	54	2	23.4448	.00000	.99999
15	44	39	21.8939	.00000	.99999	23	34	42	23.4848	.00000	.99999
49	21	29	22.0076	.00000	.99999	58	45	4	23.5076	.00000	.99999
37	59	3	22.0076	.00000	.99999	46	57	2	23.5076	.00000	.99999
29	29	41	22.0076	.00000	.99999	26	31	42	23.5076	.00000	.99999
17	67	15	22.0076	.00000	.99999	16	43	40	23.5076	.00000	.99999
33	62	4	22.1909	.00000	.99999	47	21	32	23.5758	.00000	.99999
33	26	40	22.1909	.00000	.99999	19	68	12	23.5758	.00000	.99999
53	23	23	22.1894	.00000	.99999	48	27	31	23.5909	.00000	.99999
44	21	34	22.2348	.00000	.99999	18	68	13	23.5909	.00000	.99999
22	67	1	22.2348	.00000	.99999	48	48	3	23.5909	.00000	.99999
52	22	25	22.3485	.00000	.99999	18	40	41	23.5909	.00000	.99999
14	66	19	22.3485	.00000	.99999	37	23	39	23.6439	.00000	.99999
45	50	3	22.3485	.00000	.99999	29	65	5	23.6439	.00000	.99999
20	38	41	22.3485	.00000	.99999	52	21	26	23.6894	.00000	.99999
50	21	28	22.4167	.00000	.99999	44	53	2	23.6894	.00000	.99999
15	67	16	22.4167	.00000	.99999	22	35	42	23.6894	.00000	.99999
39	23	38	22.4167	.00000	.99999	14	67	18	23.6894	.00000	.99999
29	65	6	22.4167	.00000	.99999	46	28	33	23.7121	.00000	.99999
54	24	21	22.5000	.00000	.99999	26	68	11	23.7121	.00000	.99999
35	60	3	22.5000	.00000	.99999	39	58	2	23.7273	.00000	.99999
35	24	39	22.5000	.00000	.99999	39	22	38	23.7273	.00000	.99999
30	64	5	22.5000	.00000	.99999	27	66	4	23.7273	.00000	.99999
30	28	41	22.5000	.00000	.99999	27	30	42	23.7273	.00000	.99999
49	46	4	22.5758	.00000	.99999	49	20	33	23.7576	.00000	.99999
17	42	46	22.5758	.00000	.99999	17	67	14	23.7576	.00000	.99999
40	22	37	22.7121	.00000	.99999	34	62	3	23.7576	.00000	.99999
25	60	7	22.7121	.00000	.99999	32	47	41	23.7576	.00000	.99999
43	21	35	22.7348	.00000	.99999	35	24	40	23.9394	.00000	.99999
23	67	9	22.7348	.00000	.99999	31	64	4	23.9394	.00000	.99999
52	41	6	22.7803	.00000	.99999	45	52	2	24.0000	.00000	.99999
53	39	7	22.9167	.00000	.99999	45	20	34	24.0000	.00000	.99999
47	49	3	22.9167	.00000	.99999	21	68	10	24.0000	.00000	.99999
13	39	41	22.9167	.00000	.99999	21	36	42	24.0000	.00000	.99999
34	25	43	22.9621	.00000	.99999	28	59	2	24.0530	.00000	.99999
32	63	4	22.9621	.00000	.99999	28	29	42	24.0530	.00000	.99999
51	43	5	22.9773	.00000	.99999	56	26	29	24.0530	.00000	.99999
15	45	39	22.9773	.00000	.99999	16	68	15	24.0726	.00000	.99999
51	21	27	22.9773	.00000	.99999	53	40	6	24.1212	.00000	.99999
15	67	17	22.9773	.00000	.99999	52	42	5	24.1667	.00000	.99999
35	61	3	23.0985	.00000	.99999	41	21	37	24.1894	.00000	.99999

(13)

TABLE B

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
25	67	7	24.1894	.00000	.99999	24	68	7	25.7727	.00000	.99999
49	47	3	24.3712	.00000	.99999	24	32	43	25.7727	.00000	.99999
17	41	41	24.3712	.00000	.99999	43	55	1	25.8258	.00000	.99999
54	22	23	24.4091	.00000	.99999	41	57	1	25.8258	.00000	.99999
46	51	2	24.4167	.00000	.99999	25	31	43	25.8258	.00000	.99999
20	37	42	24.4167	.00000	.99999	23	33	43	25.8258	.00000	.99999
44	20	35	24.4394	.00000	.99999	50	19	30	25.8712	.00000	.99999
22	68	9	24.4394	.00000	.99999	46	19	34	25.8712	.00000	.99999
37	60	2	24.4848	.00000	.99999	20	69	10	25.8712	.00000	.99999
29	28	42	24.4848	.00000	.99999	16	69	14	25.8712	.00000	.99999
51	44	4	24.5455	.00000	.99999	53	20	26	25.9394	.00000	.99999
51	20	28	24.5455	.00000	.99999	44	54	1	25.9848	.00000	.99999
15	68	16	24.5455	.00000	.99999	45	58	1	25.9848	.00000	.99999
15	44	40	24.5455	.00000	.99999	26	30	43	25.9848	.00000	.99999
53	21	25	24.5500	.00000	.99999	22	34	43	25.9848	.00000	.99999
73	63	3	24.6136	.00000	.99999	37	22	40	26.2121	.00000	.99999
33	25	41	24.6136	.00000	.99999	29	66	4	26.2121	.00000	.99999
38	22	39	24.8939	.00000	.99999	51	19	23	26.2500	.00000	.99999
28	66	5	24.8939	.00000	.99999	15	69	15	26.2500	.00000	.99999
47	50	2	24.9394	.00000	.99999	51	45	3	26.2500	.00000	.99999
19	38	42	24.9394	.00000	.99999	45	53	1	26.2500	.00000	.99999
36	61	2	25.0227	.00000	.99999	49	15	35	26.2500	.00000	.99999
36	23	40	25.0227	.00000	.99999	39	59	1	26.2500	.00000	.99999
70	65	4	25.0227	.00000	.99999	39	29	39	26.2500	.00000	.99999
70	27	42	25.0227	.00000	.99999	27	67	5	26.2500	.00000	.99999
43	20	36	25.0303	.00000	.99999	27	29	43	26.2500	.00000	.99999
23	68	8	25.0303	.00000	.99999	21	69	9	26.2500	.00000	.99999
48	21	38	25.1439	.00000	.99999	21	35	43	26.2500	.00000	.99999
26	67	6	25.1439	.00000	.99999	15	43	41	26.2500	.00000	.99999
52	20	27	25.1667	.00000	.99999	49	48	2	26.3030	.00000	.99999
14	68	17	25.1667	.00000	.99999	17	40	42	26.3030	.00000	.99999
44	46	3	25.2576	.00000	.99999	34	63	2	26.4167	.00000	.99999
16	42	41	25.2576	.00000	.99999	32	25	42	26.4167	.00000	.99999
53	41	5	25.4621	.00000	.99999	35	23	41	26.5500	.00000	.99999
24	24	41	25.5303	.00000	.99999	31	65	3	26.5500	.00000	.99999
32	64	5	25.5303	.00000	.99999	46	52	1	26.6212	.00000	.99999
54	21	24	25.5303	.00000	.99999	36	60	1	26.6212	.00000	.99999
48	49	2	25.5303	.00000	.99999	28	28	43	26.6212	.00000	.99999
48	19	32	25.5303	.00000	.99999	28	35	43	26.6212	.00000	.99999
18	69	12	25.5303	.00000	.99999	41	20	38	26.6667	.00000	.99999
18	39	42	25.5303	.00000	.99999	25	68	4	26.6667	.00000	.99999
47	19	33	25.5303	.00000	.99999	52	19	38	26.7803	.00000	.99999
19	69	11	25.5303	.00000	.99999	44	19	26	26.7803	.00000	.99999
49	15	31	25.5303	.00000	.99999	22	69	8	26.7803	.00000	.99999
17	67	15	25.5303	.00000	.99999	14	69	16	26.7803	.00000	.99999
35	62	4	25.6667	.00000	.99999	54	21	25	26.8636	.00000	.99999
31	20	42	25.6667	.00000	.99999	53	42	4	26.9394	.00000	.99999
52	45	4	25.6994	.00000	.99999	47	51	1	27.0985	.00000	.99999
42	56	1	25.7727	.00000	.99999	37	61	1	27.0985	.00000	.99999
42	20	37	25.7727	.00000	.99999	29	27	43	27.0985	.00000	.99999

(14)

TABLE B  
CHI SQUARE - P(1/3), P(4/9), P(2(2/9)) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
19	37	43	27.1439	.00000	.99999	52	18	29	28.5303	.00000	.99999
50	47	2	27.1439	.00000	.99999	14	70	15	28.5303	.00000	.99999
15	41	42	27.1439	.00000	.99999	53	43	3	28.5303	.00000	.99999
33	64	2	27.4272	.00000	.99999	26	29	44	28.5985	.00000	.99999
33	24	42	27.4272	.00000	.99999	40	59	0	28.5985	.00000	.99999
52	44	3	27.3485	.00000	.99999	21	34	44	28.6364	.00000	.99999
43	19	37	27.4421	.00000	.99999						



TABLE B

TABLE B

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
49	7	43	58.9167	.00000	.99999	27	18	54	63.0000	.00000	.99999
17	81	1	58.9167	.00000	.99999	53	5	41	63.0985	.00000	.99999
41	10	46	58.9394	.00000	.99999	43	8	48	63.2121	.00000	.99999
39	11	49	58.9773	.00000	.99999	37	11	51	63.4621	.00000	.99999
27	19	53	58.9773	.00000	.99999	19	25	55	63.6439	.00000	.99999
43	9	47	59.2803	.00000	.99999	18	26	55	63.6818	.00000	.99999
54	6	39	59.3182	.00000	.99999	48	6	45	63.6818	.00000	.99999
37	12	50	59.3939	.00000	.99999	52	5	42	63.6894	.00000	.99999
53	6	43	59.6667	.00000	.99999	14	83	2	63.6894	.00000	.99999
28	18	53	59.6350	.00000	.99999	20	24	55	63.7121	.00000	.99999
19	26	54	59.8885	.00000	.99999	17	27	55	63.8258	.00000	.99999
20	25	54	59.8712	.00000	.99999	28	17	54	63.8712	.00000	.99999
48	7	44	59.9318	.00000	.99999	45	7	47	63.8864	.00000	.99999
13	81	3	59.9318	.00000	.99999	21	23	55	63.8864	.00000	.99999
19	27	54	59.9318	.00000	.99999	16	28	55	64.0758	.00000	.99999
45	8	46	60.0000	.00000	.99999	32	14	53	64.1667	.00000	.99999
21	24	54	60.0000	.00000	.99999	22	22	55	64.1667	.00000	.99999
32	15	52	60.0530	.00000	.99999	35	12	52	64.3030	.00000	.99999
17	26	54	60.1212	.00000	.99999	15	29	55	64.4318	.00000	.99999
52	6	41	60.1667	.00000	.99999	51	5	43	64.4318	.00000	.99999
14	82	3	60.1667	.00000	.99999	15	83	1	64.4318	.00000	.99999
35	13	51	60.1894	.00000	.99999	23	21	55	64.5530	.00000	.99999
22	23	54	60.2348	.00000	.99999	29	16	54	64.8485	.00000	.99999
15	29	54	60.4167	.00000	.99999	47	6	46	64.9394	.00000	.99999
23	22	54	60.5758	.00000	.99999	40	9	50	64.9621	.00000	.99999
29	17	53	60.7348	.00000	.99999	42	8	49	65.0455	.00000	.99999
51	6	42	60.8182	.00000	.99999	24	20	55	65.0455	.00000	.99999
15	82	2	60.8182	.00000	.99999	38	10	51	65.2576	.00000	.99999
15	30	54	60.8182	.00000	.99999	50	5	44	65.3258	.00000	.99999
40	10	49	60.8939	.00000	.99999	16	83	0	65.3258	.00000	.99999
42	9	48	61.0227	.00000	.99999	44	7	48	65.5076	.00000	.99999
24	21	54	61.0227	.00000	.99999	33	13	53	65.5227	.00000	.99999
47	7	45	61.0985	.00000	.99999	25	19	55	65.6439	.00000	.99999
33	11	50	61.4439	.00000	.99999	36	11	52	65.9318	.00000	.99999
33	14	52	61.3636	.00000	.99999	30	15	54	65.9318	.00000	.99999
44	8	47	61.5303	.00000	.99999	54	4	41	66.1364	.00000	.99999
23	20	54	61.5758	.00000	.99999	46	6	47	66.3485	.00000	.99999
50	6	43	61.6212	.00000	.99999	26	18	55	66.3485	.00000	.99999
15	82	1	61.6212	.00000	.99999	49	5	45	66.3712	.00000	.99999
36	12	51	61.7727	.00000	.99999	53	4	42	66.6667	.00000	.99999
30	16	53	61.7727	.00000	.99999	34	12	53	66.9848	.00000	.99999
25	19	54	62.2348	.00000	.99999	47	8	50	67.3030	.00000	.99999
45	7	46	62.4167	.00000	.99999	31	14	54	67.1212	.00000	.99999
49	6	44	62.5758	.00000	.99999	39	9	51	67.1591	.00000	.99999
17	82	0	62.5758	.00000	.99999	27	17	55	67.1591	.00000	.99999
54	5	40	62.6591	.00000	.99999	43	7	49	67.2803	.00000	.99999
34	13	52	62.7803	.00000	.99999	52	4	43	67.3485	.00000	.99999
41	7	49	62.8167	.00000	.99999	14	84	1	67.3485	.00000	.99999
11	15	53	62.9167	.00000	.99999	18	26	56	67.5682	.00000	.99999
39	1	52	63.0000	.00000	.99999	48	5	46	67.5682	.00000	.99999

(21)

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
19	24	56	67.5758	.00000	.99999	15	27	57	72.0682	.00000	.99999
37	10	52	67.6667	.00000	.99999	28	15	56	72.4167	.00000	.99999
17	26	56	67.6667	.00000	.99999	22	20	57	72.4394	.00000	.99999
20	23	565	67.6894	.00000	.99999	32	12	55	72.8030	.00000	.99999
16	27	56	67.8712	.00000	.99999	23	19	57	72.9167	.00000	.99999
45	6	48	67.9491	.00000	.99999	35	10	54	72.9394	.00000	.99999
21	22	56	67.9091	.00000	.99999	47	4	48	73.0303	.00000	.99999
28	16	55	68.0758	.00000	.99999	50	3	45	73.1439	.00000	.99999
51	4	44	68.1818	.00000	.99999	29	14	56	73.4848	.00000	.99999
15	28	56	68.1818	.00000	.99999	54	2	43	73.5000	.00000	.99999
15	84	0	68.1818	.00000	.99999	42	6	51	73.5000	.00000	.99999
22	21	56	68.2348	.00000	.99999	24	18	57	73.5000	.00000	.99999
32	13	54	68.4167	.00000	.99999	40	7	52	73.5076	.00000	.99999
35	11	53	68.5530	.00000	.99999	44	5	50	73.8712	.00000	.99999
23	20	56	68.6667	.00000	.99999	38	8	53	73.8939	.00000	.99999
47	5	47	68.9167	.00000	.99999	25	17	57	74.1894	.00000	.99999
29	15	55	69.0985	.00000	.99999	53	2	44	74.2121	.00000	.99999
50	4	45	69.1667	.00000	.99999	33	11	55	74.2500	.00000	.99999
40	8	51	69.1667	.00000	.99999	49	3	47	74.3712	.00000	.99999
42	7	50	69.2445	.00000	.99999	46	4	49	74.6212	.00000	.99999
24	19	56	69.2445	.00000	.99999	36	9	54	74.6591	.00000	.99999
38	9	52	69.5076	.00000	.99999	33	13	56	74.6591	.00000	.99999
44	6	49	69.6212	.00000	.99999	26	16	57	74.9848	.00000	.99999
54	3	42	69.7500	.00000	.99999	52	2	45	75.0758	.00000	.99999
33	12	54	69.8182	.00000	.99999	41	5	52	75.6667	.00000	.99999
25	18	56	69.8485	.00000	.99999	48	3	48	75.7500	.00000	.99999
36	10	53	70.2273	.00000	.99999	16	23	58	75.7500	.00000	.99999
37	14	53	70.2273	.00000	.99999	17	24	58	75.7576	.00000	.99999
49	4	46	70.3030	.00000	.99999	34	10	55	75.8030	.00000	.99999
53	3	43	70.3712	.00000	.99999	43	5	51	75.8258	.00000	.99999
46	5	48	70.4167	.00000	.99999	19	22	58	75.8885	.00000	.99999
26	17	56	70.5985	.00000	.99999	16	25	54	75.8712	.00000	.99999
52	3	44	71.1439	.00000	.99999	39	7	53	75.8864	.00000	.99999
14	85	0	71.1439	.00000	.99999	27	15	57	75.8864	.00000	.99999
41	7	51	71.2803	.00000	.99999	31	12	55	75.9394	.00000	.99999
34	11	54	71.3258	.00000	.99999	20	21	58	76.0530	.00000	.99999
39	8	52	71.4545	.00000	.99999	51	2	46	76.0530	.00000	.99999
27	16	56	71.4545	.00000	.99999	15	26	58	76.0909	.00000	.99999
31	13	55	71.4621	.00000	.99999	45	4	50	76.3636	.00000	.99999
48	4	47	71.4648	.00000	.99999	21	20	58	76.3636	.00000	.99999
18	24	57	71.5909	.00000	.99999	37	8	54	76.4248	.00000	.99999
19	23	57	71.6439	.00000	.99999	22	19	58	76.4803	.00000	.99999
17	25	57	71.6439	.00000	.99999	28	14	57	76.4839	.00000	.99999
25	22	57	71.8030	.00000	.99999	50	2	47	76.8956	.00000	.99999
16	26	57	71.8030	.00000	.99999	47	3	49	77.2803	.00000	.99999
37	9	53	72.0076	.00000	.99999	23	18	58	77.3030	.00000	.99999
51	3	45	72.0082	.00000	.99999	32	11	56	77.3258	.00000	.99999
45	5	49	72.0682	.00000	.99999	54	1	44	77.3684	.00000	.99999
21	21	57	72.0682	.00000	.99999	35	9	55	77.4621	.00000	.99999

(22)

TABLE B

TABLE B

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
24	17	58	77.9318	.00000	.99999	33	9	57	83.5227	.00000	.99999
40	6	53	77.9648	.00000	.99999	36	7	56	83.9318	.00000	.99999
29	13	57	78.0076	.00000	.99999	30	11	58	83.9318	.00000	.99999
55	1	45	78.1894	.00000	.99999	26	14	59	84.1667	.00000	.99999
43	4	51	78.2576	.00000	.99999	17	22	60	84.3939	.00000	.99999
38	7	54	78.4167	.00000	.99999	16	23	60	84.4167	.00000	.99999
43	2	48	78.4758	.00000	.99999	48	1	50	84		

TABLE B

TABLE B

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
23	6	63	136.6212	.00000	.99999	28	6	65	117.6212	.00000	.99999	29	3	67	130.7048	.00000	.99999	24	4	71	147.9545	.00000	.99999
32	5	62	107.3258	.00000	.99999	24	9	66	118.2955	.00000	.99999	25	6	68	130.9394	.00000	.99999	18	9	72	148.2955	.00000	.99999
24	11	64	107.3864	.00000	.99999	32	3	64	118.4167	.00000	.99999	19	11	69	131.0985	.00000	.99999	19	8	72	149.0303	.00000	.99999
53	3	61	107.4621	.00000	.99999	15	17	67	118.4318	.00000	.99999	20	10	69	131.4036	.00000	.99999	29	0	70	149.2121	.00000	.99999
40	5	59	107.7121	.00000	.99999	35	1	63	118.5530	.00000	.99999	33	0	66	132.0000	.00000	.99999	25	3	71	149.2803	.00000	.99999
29	7	63	108.3076	.00000	.99999	16	16	67	118.6212	.00000	.99999	26	5	68	132.2348	.00000	.99999	20	7	72	149.4712	.00000	.99999
13	19	65	108.0682	.00000	.99999	17	15	67	118.9167	.00000	.99999	30	2	67	132.4091	.00000	.99999	26	2	71	150.7121	.00000	.99999
16	18	65	108.1667	.00000	.99999	29	5	65	119.0985	.00000	.99999	21	9	69	132.4136	.00000	.99999	21	6	72	150.8182	.00000	.99999
17	17	65	108.3712	.00000	.99999	18	14	67	119.3182	.00000	.99999	22	8	69	133.5303	.00000	.99999	22	5	72	151.8712	.00000	.99999
25	10	64	108.3939	.00000	.99999	25	8	66	119.3939	.00000	.99999	27	4	68	133.6364	.00000	.99999	27	1	71	152.2500	.00000	.99999
33	1	60	108.4167	.00000	.99999	19	13	67	119.8258	.00000	.99999	31	1	67	134.1894	.00000	.99999	15	11	73	152.7955	.00000	.99999
18	16	65	108.6818	.00000	.99999	33	2	64	120.2727	.00000	.99999	23	7	69	134.5530	.00000	.99999	43	4	72	153.0303	.00000	.99999
33	4	62	109.0909	.00000	.99999	20	12	67	120.4394	.00000	.99999	15	14	70	135.0004	.00000	.99999	16	10	73	153.2576	.00000	.99999
15	15	65	109.0985	.00000	.99999	26	7	66	120.5985	.00000	.99999	28	3	68	135.1439	.00000	.99999	17	9	73	153.4258	.00000	.99999
35	2	61	109.5000	.00000	.99999	36	0	63	120.6818	.00000	.99999	16	13	70	135.2258	.00000	.99999	26	0	71	153.8939	.00000	.99999
35	6	63	109.5000	.00000	.99999	30	4	65	120.6818	.00000	.99999	24	6	69	135.6818	.00000	.99999	44	3	72	154.2955	.00000	.99999
25	9	64	109.5076	.00000	.99999	21	11	67	121.1591	.00000	.99999	17	12	70	135.7576	.00000	.99999	18	8	73	154.5000	.00000	.99999
20	14	65	109.6212	.00000	.99999	27	6	66	121.9091	.00000	.99999	32	0	67	136.0758	.00000	.99999	19	7	73	155.2803	.00000	.99999
21	13	65	110.2500	.00000	.99999	22	10	67	121.9848	.00000	.99999	18	11	70	136.2955	.00000	.99999	25	2	72	155.6667	.00000	.99999
27	8	64	110.7273	.00000	.99999	34	1	64	122.2348	.00000	.99999	29	2	68	136.7576	.00000	.99999	23	5	73	156.1667	.00000	.99999
39	0	60	110.7273	.00000	.99999	31	3	65	122.3712	.00000	.99999	25	5	69	136.9167	.00000	.99999	26	1	72	157.1439	.00000	.99999
34	3	62	110.9621	.00000	.99999	23	9	67	122.9167	.00000	.99999	19	10	70	136.9394	.00000	.99999	21	5	73	157.1591	.00000	.99999
22	12	65	110.9848	.00000	.99999	28	5	66	123.3258	.00000	.99999	20	9	70	137.6894	.00000	.99999	22	4	73	158.2576	.00000	.99999
31	5	63	111.0985	.00000	.99999	15	16	68	123.8182	.00000	.99999	26	4	69	138.2576	.00000	.99999	27	1	72	158.7273	.00000	.99999
37	1	61	111.6439	.00000	.99999	24	8	67	123.9545	.00000	.99999	30	1	68	138.4773	.00000	.99999	15	10	74	159.0000	.00000	.99999
23	11	65	111.8258	.00000	.99999	16	15	68	124.0530	.00000	.99999	21	8	70	138.5455	.00000	.99999	23	3	73	159.4621	.00000	.99999
28	7	64	112.0530	.00000	.99999	32	2	65	124.1667	.00000	.99999	22	7	70	139.5076	.00000	.99999	16	9	74	159.5076	.00000	.99999
24	10	65	112.7727	.00000	.99999	35	0	64	124.3030	.00000	.99999	31	0	68	140.3630	.00000	.99999	17	8	74	160.1212	.00000	.99999
32	4	63	112.8630	.00000	.99999	17	14	68	124.3939	.00000	.99999	23	6	70	140.5058	.00000	.99999	24	2	73	160.7727	.00000	.99999
35	2	62	112.9394	.00000	.99999	18	13	68	124.8409	.00000	.99999	15	13	71	140.7955	.00000	.99999	18	7	74	160.8409	.00000	.99999
15	16	66	113.1818	.00000	.99999	29	4	66	124.8485	.00000	.99999	16	12	71	141.1667	.00000	.99999	19	6	74	161.6667	.00000	.99999
15	17	66	113.3258	.00000	.99999	25	7	67	125.0985	.00000	.99999	28	2	69	141.2576	.00000	.99999	25	1	73	162.1894	.00000	.99999
29	6	64	113.4848	.00000	.99999	19	12	68	125.3939	.00000	.99999	17	11	71	141.6439	.00000	.99999	20	5	74	162.5985	.00000	.99999
17	16	66	113.5758	.00000	.99999	20	11	68	126.0530	.00000	.99999	24	5	70	141.7500	.00000	.99999	21	4	74	163.6364	.00000	.99999
25	9	65	113.8258	.00000	.99999	33	1	65	126.0682	.00000	.99999	18	10	71	142.2273	.00000	.99999	26	0	73	163.7121	.00000	.99999
38	0	61	113.8939	.00000	.99999	26	6	67	126.3485	.00000	.99999	29	1	69	142.9167	.00000	.99999	22	3	74	164.7803	.00000	.99999
19	15	66	113.9318	.00000	.99999	30	3	66	126.4773	.00000	.99999	19	9	71	142.9167	.00000	.99999	15	9	74	165.3409	.00000	.99999
13	14	66	114.3939	.00000	.99999	21	10	68	126.8182	.00000	.99999	25	4	70	143.0303	.00000	.99999	16	8	75	165.8939	.00000	.99999
33	3	63	114.6136	.00000	.99999	22	9	68	127.6894	.00000	.99999	20	8	71	143.7121	.00000	.99999	23	2	74	166.0303	.00000	.99999
20	13	66	114.9621	.00000	.99999	27	5	67	127.7045	.00000	.99999	25	8	71	143.7121	.00000	.99999	17	7	75	166.5530	.00000	.99999
25	8	65	114.9848	.00000	.99999	34	0	65	128.0758	.00000	.99999	26	3	70	144.8167	.00000	.99999	18	6	75	167.3182	.00000	.99999
35	1	62	115.0227	.00000	.99999	31	2	66	128.2121	.00000	.99999	21	7	71	144.8167	.00000	.99999	24	1	74	167.3864	.00000	.99999
30	5	64	115.3227	.00000	.99999	23	8	68	128.6667	.00000	.99999	30	0	69	144.6818	.00000	.99999	19	5	75	168.1894	.00000	.99999
21	12	66	115.6364	.00000	.99999	28	4	67	129.1667	.00000	.99999	22	6	71	145.6212	.00000	.99999	25	0	74	168.8485	.00000	.99999
27	7	65	116.2500	.00000	.99999	15	15	69	129.3409	.00000	.99999	15	12	72	146.7273	.00000	.99999	26	4	75	169.1667	.00000	.99999
22	11	66	116.4167	.00000	.99999	16	14	69	129.6212	.00000	.99999	23	5	71	146.7348	.00000	.99999	21	3	75	170.2500	.00000	.99999
34	2	63	116.5303	.00000	.99999	24	7	68	129.7500	.00000	.99999	25	7	72	147.1439	.00000	.99999	22	2	75	171.4394	.00000	.99999
31	4	64	116.6667	.00000	.99999	17	13	69	130.0076	.00000	.99999	28	1	70	147.5076	.00000	.99999	15	8	76	171.8182	.00000	.99999
37	0	62	117.2121	.00000	.99999	32	1	66	130.0530	.00000	.99999	17	10	72	147.6667	.00000	.99999	26	7	76	172.4167	.00000	.99999
23	10	66	117.3630	.00000	.99999	18	12	69	130.5000	.00000	.99999	17	10	72	147.6667	.00000	.99999	23	1	75	172.7348	.00000	.99999

(25)

(26)

TABLE B

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(B)
17	6	76	173.1212	.00000	.99999
13	5	76	173.9318	.00000	.99999
24	0	75	174.1364	.00000	.99999
19	4	76	174.8485	.00000	.99999
20	3	76	175.6712	.00000	.99999
21	2	76	177.0000	.00000	.99999
22	1	76	178.2348	.00000	.99999
15	7	77	178.4318	.00000	.99999
15	6	77	179.0758	.00000	.99999
23	0	76	179.5758	.00000	.99999
17	5	77	179.8258	.00000	.99999
19	4	77	180.6818	.00000	.99999
17	3	77	181.6439	.00000	.99999
20	2	77	182.7121	.00000	.99999
21	1	77	183.8864	.00000	.99999
22	0	77	185.1667	.00000	.99

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U1	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
14	52	33	17.8939	.00000	.99978	15	116	68	123.8182	.00000	.99999
14	53	32	17.3258	.00000	.99984	15	17	67	118.4318	.00000	.99999
14	54	31	16.8939	.00000	.99978	15	118	66	113.1818	.00000	.99999
14	55	30	16.5985	.00000	.99974	15	119	65	108.0682	.00000	.99999
14	56	29	16.4394	.00000	.99973	15	20	64	103.0909	.00000	.99999
14	57	28	16.4167	.00000	.99971	15	21	63	98.2560	.00000	.99999
14	58	27	16.4303	.00000	.99974	15	22	62	93.5455	.00000	.99999
14	59	26	16.4780	.00000	.99976	15	23	61	88.9773	.00000	.99999
14	60	25	16.667	.00001	.99982	15	24	60	84.5455	.00000	.99999
14	61	24	16.7894	.00001	.99986	15	25	59	80.2500	.00000	.99999
14	62	23	16.9485	.00001	.99989	15	26	58	76.0909	.00000	.99999
14	63	22	17.1439	.00001	.99993	15	27	57	72.0682	.00000	.99999
14	64	21	17.3758	.00001	.99995	15	28	56	68.1818	.00000	.99999
14	65	20	17.6391	.00001	.99997	15	29	55	64.4318	.00000	.99999
14	66	19	17.9285	.00001	.99998	15	30	54	60.8182	.00000	.99999
14	67	18	18.2381	.00001	.99998	15	31	53	57.3409	.00000	.99999
14	68	17	18.5667	.00001	.99999	15	32	52	54.0000	.00000	.99999
14	69	16	18.9167	.00000	.99999	15	33	51	50.7955	.00000	.99999
14	70	15	19.2833	.00000	.99999	15	34	50	47.7273	.00000	.99999
14	71	14	19.6671	.00000	.99999	15	35	49	44.7955	.00000	.99999
14	72	13	20.0667	.00000	.99999	15	36	48	42.0000	.00000	.99999
14	73	12	20.4833	.00000	.99999	15	37	47	39.3409	.00000	.99999
14	74	11	20.9167	.00000	.99999	15	38	46	36.8182	.00000	.99999
14	75	10	21.3667	.00000	.99999	15	39	45	34.4318	.00000	.99999
14	76	9	21.8333	.00000	.99999	15	40	44	32.1818	.00000	.99999
14	77	8	22.3167	.00000	.99999	15	41	43	30.0682	.00000	.99999
14	78	7	22.8167	.00000	.99999	15	42	42	28.0909	.00000	.99999
14	79	6	23.3333	.00000	.99999	15	43	41	26.2500	.00000	.99999
14	80	5	23.8667	.00000	.99999	15	44	40	24.5455	.00000	.99999
14	81	4	24.4167	.00000	.99999	15	45	39	22.9773	.00000	.99999
14	82	3	24.9833	.00000	.99999	15	46	38	21.5455	.00000	.99999
14	83	2	25.5667	.00000	.99999	15	47	37	20.2500	.00000	.99999
14	84	1	26.1667	.00000	.99999	15	48	36	19.0909	.00000	.99999
14	85	0	26.7833	.00000	.99999	15	49	35	18.0682	.00000	.99999
15	46	228	24.5455	.00000	.99999	15	50	34	17.1818	.00000	.99999
15	1	83	22.9773	.00001	.99999	15	51	33	16.4318	.00000	.99999
15	2	82	21.5455	.00001	.99999	15	52	32	15.8182	.00000	.99999
15	3	81	20.2500	.00000	.99999	15	53	31	15.3409	.00000	.99999
15	4	80	19.0909	.00000	.99999	15	54	30	15.0000	.00000	.99999
15	5	79	18.0682	.00000	.99999	15	55	29	14.7955	.00000	.99999
15	6	78	17.1818	.00000	.99999	15	56	28	14.7273	.00000	.99999
15	7	77	16.4167	.00000	.99999	15	57	27	14.7955	.00000	.99999
15	8	76	15.8182	.00000	.99999	15	58	26	15.0000	.00000	.99999
15	9	75	15.3409	.00000	.99999	15	59	25	15.3409	.00000	.99999
15	10	74	15.0000	.00000	.99999	15	60	24	15.8182	.00000	.99999
15	11	73	14.7955	.00000	.99999	15	61	23	16.4318	.00000	.99999
15	12	72	14.6667	.00000	.99999	15	62	22	17.1818	.00000	.99999
15	13	71	14.0795	.00000	.99999	15	63	21	18.0682	.00000	.99999
15	14	70	13.5000	.00000	.99999	15	64	20	19.0909	.00000	.99999
15	15	69	12.9341	.00000	.99999	15	65	19	20.2500	.00000	.99999

(1)

TABLE C

U1	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
16	31	52	53.5076	.00000	.99999	16	31	52	53.5076	.00000	.99999
16	32	51	50.2576	.00000	.99999	16	32	51	50.2576	.00000	.99999
16	33	50	47.1439	.00000	.99999	16	33	50	47.1439	.00000	.99999
16	34	49	44.1667	.00000	.99999	16	34	49	44.1667	.00000	.99999
16	35	48	41.3258	.00000	.99999	16	35	48	41.3258	.00000	.99999
16	36	47	38.6212	.00000	.99999	16	36	47	38.6212	.00000	.99999
16	37	46	36.0530	.00000	.99999	16	37	46	36.0530	.00000	.99999
16	38	45	33.6212	.00000	.99999	16	38	45	33.6212	.00000	.99999
16	39	44	31.3258	.00000	.99999	16	39	44	31.3258	.00000	.99999
16	40	43	29.1667	.00000	.99999	16	40	43	29.1667	.00000	.99999
16	41	42	27.1439	.00000	.99999	16	41	42	27.1439	.00000	.99999
16	42	41	25.2576	.00000	.99999	16	42	41	25.2576	.00000	.99999
16	43	40	23.5076	.00000	.99999	16	43	40	23.5076	.00000	.99999
16	44	39	21.8939	.00000	.99999	16	44	39	21.8939	.00000	.99999
16	45	38	20.4167	.00000	.99999	16	45	38	20.4167	.00000	.99999
16	46	37	19.0758	.00000	.99999	16	46	37	19.0758	.00000	.99999
16	47	36	17.8721	.00000	.99999	16	47	36	17.8721	.00000	.99999
16	48	35	16.8036	.00000	.99999	16	48	35	16.8036	.00000	.99999
16	49	34	15.8721	.00000	.99999	16	49	34	15.8721	.00000	.99999
16	50	33	15.0758	.00000	.99999	16	50	33	15.0758	.00000	.99999
16	51	32	14.4167	.00000	.99999	16	51	32	14.4167	.00000	.99999
16	52	31	13.8939	.00000	.99999	16	52	31	13.8939	.00000	.99999
16	53	30	13.5076	.00000	.99999	16	53	30	13.5076	.00000	.99999
16	54	29	13.2576	.00000	.99999	16	54	29	13.2576	.00000	.99999
16	55	28	13.1439	.00000	.99999	16	55	28	13.1439	.00000	.99999
16	56	27	13.1667	.00000	.99999	16	56	27	13.1667	.00000	.99999
16	57	26	13.2500	.00000	.99999	16	57	26	13.2500	.00000	.99999
16	58	25	13.3258	.00000	.99999	16	58	25	13.3258	.00000	.99999
16	59	24	13.4076	.00000	.99999	16	59	24	13.4076	.00000	.99999
16	60	23	13.4833	.00000	.99999	16	60	23	13.4833	.00000	.99999
16	61	22	13.5576	.00000	.99999	16	61	22	13.5576	.00000	.99999
16	62	21	13.6258	.00000	.99999	16	62	21	13.6258	.00000	.99999
16	63	20	13.6833	.00000	.99999	16	63	20	13.6833	.00000	.99999
16	64	19	13.7358	.00000	.99999	16	64	19	13.7358	.00000	.99999
16	65	18	13.7833	.00000	.99999	16	65	18	13.7833	.00000	.99999
16	66	17	13.8258	.00000	.99999	16	66	17	13.8258	.00000	.99999
16	67	16	13.8633	.00000	.99999	16	67	16	13.8633	.00000	.99999
16	68	15	13.8958	.00000	.99999	16	68	15	13.8958	.00000	.99999
16	69	14	13.9233	.00000	.99999	16	69	14	13.9233	.00000	.99999
16	70	13	13.9458	.00000	.99999	16	70	13	13.9458	.00000	.99999
16	71	12	13.9633	.00000	.99999	16	71	12	13.9633	.00000	.99999
16	72	11	13.9758	.00000	.99999	16	72	11	13.9758	.00000	.99999
16	73	10	13.9833	.00000	.99999	16	73	10	13.9833	.00000	.99999
16	74	9	13.9858	.00000	.99999	16	74	9	13.9858	.00000	.99999
16	75	8	13.9833	.00000	.99999	16	75	8	13.9833	.00000	.99999
16	76	7	13.9758	.00000	.99999	16	76	7	13.9758	.00000	.99999
16	77	6	13.9633	.00000	.99999	16	77	6	13.9633	.00000	.99999
16	78	5	13.9458	.00000	.99999	16	78	5	13.9458	.00000	.99999
16	79	4	13.9233	.00000	.99999	16	79	4	13.9233	.00000	.99999
16	80	3	13.8958	.00000	.99999	16	80	3	13.8958	.00000	.99999

(2)

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=991

U1	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
17	47	35	15.6439	.00000	.99991	17	47	35	15.6439	.00000	.99991
17	48	34	14.6667	.00000	.99990	17	48	34	14.6667	.00000	.99990
17	49	33	13.8258	.00000	.99989	17	49	33	13.8258	.00000	.99989
17	50	32	13.1212	.00001	.99984	17	50	32	13.1212	.00001	.99984
17	51	31	12.5530	.00001	.99981	17	51	31	12.5530	.00001	.99981
17	52	30	12.1212	.00001	.99979						

TABLE C

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
19	32	48	39.9394	.00000	.99999	20	1	78	189.6894	.00000	.99999
19	33	47	37.0985	.00000	.99999	20	2	77	182.7121	.00000	.99999
19	34	46	34.3939	.00000	.99999	20	3	76	175.8712	.00000	.99999
19	35	45	31.8258	.00000	.99999	20	4	75	169.1667	.00000	.99999
19	36	44	29.3939	.00000	.99999	20	5	74	162.5985	.00000	.99999
19	37	43	27.0985	.00000	.99999	20	6	73	156.1667	.00000	.99999
19	38	42	24.9394	.00000	.99999	20	7	72	149.8712	.00000	.99999
19	39	41	22.9167	.00000	.99998	20	8	71	143.7121	.00000	.99999
19	40	40	21.0363	.00000	.99996	20	9	70	137.6894	.00000	.99999
19	41	39	19.2803	.00000	.99993	20	10	69	131.8030	.00000	.99999
19	42	38	17.6667	.00000	.99985	20	11	68	126.0530	.00000	.99999
19	43	37	16.1894	.00000	.99980	20	12	67	120.4394	.00000	.99999
19	44	36	14.8485	.00000	.99971	20	13	66	114.9621	.00000	.99999
19	45	35	13.6439	.00000	.99962	20	14	65	109.6212	.00000	.99999
19	46	34	12.5758	.00000	.99951	20	15	64	104.4167	.00000	.99999
19	47	33	11.6439	.00000	.99939	20	16	63	99.3485	.00000	.99999
19	48	32	10.8485	.00000	.99924	20	17	62	94.4167	.00000	.99999
19	49	31	10.1894	.00000	.99907	20	18	61	89.6212	.00000	.99999
19	50	30	9.6667	.00000	.99887	20	19	60	84.9621	.00000	.99999
19	51	29	9.2803	.00000	.99867	20	20	59	80.4394	.00000	.99999
19	52	28	8.9363	.00000	.99846	20	21	58	76.0530	.00000	.99999
19	53	27	8.6167	.00000	.99824	20	22	57	71.8030	.00000	.99999
19	54	26	8.3394	.00000	.99801	20	23	56	67.6894	.00000	.99999
19	55	25	8.0985	.00000	.99778	20	24	55	63.7121	.00000	.99999
19	56	24	7.8939	.00000	.99756	20	25	54	59.8712	.00000	.99999
19	57	23	7.7258	.00000	.99732	20	26	53	56.1667	.00000	.99999
19	58	22	7.5939	.00000	.99707	20	27	52	52.5985	.00000	.99999
19	59	21	7.4985	.00000	.99683	20	28	51	49.1667	.00000	.99999
19	60	20	7.4394	.00000	.99660	20	29	50	45.8712	.00000	.99999
19	61	19	7.4167	.00000	.99638	20	30	49	42.7121	.00000	.99999
19	62	18	7.4303	.00000	.99617	20	31	48	39.6894	.00000	.99999
19	63	17	7.4783	.00000	.99597	20	32	47	36.8030	.00000	.99999
19	64	16	7.5500	.00000	.99578	20	33	46	34.0530	.00000	.99999
19	65	15	7.6485	.00000	.99560	20	34	45	31.4394	.00000	.99999
19	66	14	7.7685	.00000	.99543	20	35	44	28.9621	.00000	.99999
19	67	13	7.9139	.00000	.99528	20	36	43	26.6212	.00000	.99999
19	68	12	8.0800	.00000	.99514	20	37	42	24.4167	.00000	.99999
19	69	11	8.2643	.00000	.99501	20	38	41	22.3485	.00000	.99998
19	70	10	8.4643	.00000	.99489	20	39	40	20.4167	.00000	.99996
19	71	9	8.6789	.00000	.99478	20	40	39	18.6212	.00000	.99991
19	72	8	8.9085	.00000	.99468	20	41	38	16.9621	.00000	.99987
19	73	7	9.1526	.00000	.99460	20	42	37	15.4394	.00000	.99980
19	74	6	9.4121	.00000	.99453	20	43	36	14.0530	.00000	.99971
19	75	5	9.6867	.00000	.99448	20	44	35	12.8030	.00000	.99963
19	76	4	9.9767	.00000	.99444	20	45	34	11.6894	.00000	.99956
19	77	3	10.2815	.00000	.99442	20	46	33	10.7121	.00000	.99951
19	78	2	10.6019	.00000	.99441	20	47	32	9.8712	.00000	.99947
19	79	1	10.9382	.00000	.99441	20	48	31	9.1667	.00000	.99944
19	80	0	11.2900	.00000	.99442	20	49	30	8.5985	.00000	.99941
20	50	79	195.8030	.00000	.99999	20	50	29	8.1667	.00011	.998353

(5)

TABLE C

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
20	51	28	7.8712	.00013	.998103	21	21	57	72.0682	.00000	.99999
20	52	27	7.7121	.00014	.997997	21	22	56	67.9091	.00000	.99999
20	53	26	7.6894	.00014	.997959	21	23	55	63.8864	.00000	.99999
20	54	25	7.8030	.00014	.988068	21	24	54	60.0000	.00000	.99999
20	55	24	8.0530	.00013	.982833	21	25	53	56.2500	.00000	.99999
20	56	23	8.4394	.00011	.98545	21	26	52	52.6364	.00000	.99999
20	57	22	8.9621	.00009	.986907	21	27	51	49.1591	.00000	.99999
20	58	21	9.6212	.00007	.992909	21	28	50	45.8182	.00000	.99999
20	59	20	10.4167	.00005	.99463	21	29	49	42.6136	.00000	.99999
20	60	19	11.3485	.00003	.99656	21	30	48	39.6545	.00000	.99999
20	61	18	12.4167	.00002	.99813	21	31	47	36.8136	.00000	.99999
20	62	17	13.6212	.00001	.99900	21	32	46	33.8182	.00000	.99999
20	63	16	14.9621	.00000	.99942	21	33	45	31.1591	.00000	.99999
20	64	15	16.4394	.00000	.99973	21	34	44	28.4364	.00000	.99999
20	65	14	18.0530	.00000	.99987	21	35	43	26.2500	.00000	.99999
20	66	13	19.8030	.00000	.99994	21	36	42	24.5000	.00000	.99999
20	67	12	21.6894	.00000	.99997	21	37	41	23.0682	.00000	.99998
20	68	11	23.7121	.00000	.99998	21	38	40	21.9091	.00000	.99995
20	69	10	25.8712	.00000	.99999	21	39	39	20.9682	.00000	.99988
20	70	9	28.1667	.00000	.99999	21	40	38	20.1536	.00000	.99970
20	71	8	30.5985	.00000	.99999	21	41	37	19.4795	.00000	.99939
20	72	7	33.1667	.00000	.99999	21	42	36	18.9364	.00000	.99918
20	73	6	35.8712	.00000	.99999	21	43	35	18.5082	.00000	.99903
20	74	5	38.7121	.00000	.99999	21	44	34	18.1909	.00000	.99878
20	75	4	41.6894	.00000	.99999	21	45	33	17.9864	.00000	.99853
20	76	3	44.8030	.00000	.99999	21	46	32	17.8909	.00000	.99828
20	77	2	48.0530	.00000	.99999	21	47	31	17.9091	.00000	.99803
20	78	1	51.4394	.00000	.99999	21	48	30	18.0364	.00000	.99778
20	79	0	54.9621	.00000	.99999	21	49	29	18.2751	.00000	.99753
20	80	99	190.9091	.00000	.99999	21	50	28	18.6182	.00000	.99728
21	1	77	183.8864	.00000	.99999	21	51	27	18.0682	.00000	.99703
21	2	76	177.0000	.00000	.99999	21	52	26	17.6364	.00000	.99678
21	3	75	170.2500	.00000	.99999	21	53	25	17.3136	.00000	.99653
21	4	74	163.6364	.00000	.99999	21	54	24	17.0000	.00000	.99628
21	5	73	157.1591	.00000	.99999	21	55	23	16.7591	.00000	.99603
21	6	72	150.8182	.00000	.99999	21	56	22	16.5864	.00000	.99578
21	7	71	144.6136	.00000	.99999	21	57	21	16.4751	.00000	.99553
21	8	70	138.5455	.00000	.99999	21	58	20	16.4182	.00000	.99528
21	9	69	132.6136	.00000	.99999	21	59	19	16.4136	.00000	.99503
21	10	68	126.8182	.00000	.99999	21	60	18	16.4682	.00000	.99478
21	11	67	121.1591	.00000	.99999	21	61	17	16.5864	.00000	.99453
21	12	66	115.6364	.00000	.99999	21	62	16	16.7636	.00000	.99428
21	13	65	110.2500	.00000	.99999	21	63	15	16.9951	.00000	.99403
21	14	64	105.0000	.00000	.99999	21	64	14	17.2864	.00000	.99378
21	15	63	99.8864	.00000	.99999	21	65	13	17.6364	.00000	.99353
21	16	62	94.9091	.00000	.99999	21	66	12	18.0364	.00000	.99328
21	17	61	90.0682	.00000	.99999	21	67	11	18.4864	.00000	.99303
21	18	60	85.3636	.00000	.99999	21	68	10	18.9909	.00000	.99278
21	19	59	80.7955	.00000	.99999	21	69	9	19.5500	.00000	.99253
21	20	58	76.3636	.00000	.99999	21	70	8	20.1636	.00000	.99228

(6)

TABLE C

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
21	71	7	31.1591	.00000	.99999	22	42	35	11.4394	.00004	.99661
21	72	6	33.8182	.00000	.99999	22	43	34	14.2346	.00007	.99423
21	73	5	36.6136	.00000	.99999	22	44	33	9.1667	.00017	.99017
21	74	4	39.5455	.00000	.99999	22	45	32	8.2348	.00015	.98418
21	75	3	42.6136	.00000	.99999	22	46	31	7.4394	.00021	.97643
21	76	2	45.8182	.							

TABLE C

CHI SQUARE - P(1/3), P(4/9), P(2(2/9)) N=99

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
23	37	38	13.2045	.00001	.99953	25	11	63	103.0985	.00001	.99999
23	36	37	13.5000	.00002	.99948	25	12	62	97.9394	.00000	.99999
23	35	36	11.9516	.00044	.99763	25	13	61	92.9167	.00000	.99999
23	40	35	10.5030	.00067	.99527	25	14	60	88.0363	.00000	.99999
23	41	34	9.2045	.00012	.99553	25	15	59	83.2803	.00000	.99999
23	46	33	8.4455	.0002	.99230	25	16	58	78.6667	.00000	.99999
23	43	31	7.0227	.0003	.97776	25	17	57	74.1894	.00000	.99999
24	45	31	6.1364	.00044	.95676	25	18	56	69.8485	.00000	.99999
24	45	31	5.3864	.00066	.93358	25	19	55	65.6439	.00000	.99999
24	46	29	4.7727	.00079	.90634	25	20	54	61.5758	.00000	.99999
24	47	28	4.2955	.00097	.88643	25	21	53	57.6439	.00000	.99999
24	48	27	3.9545	.00113	.86650	25	22	52	53.8485	.00000	.99999
24	49	26	3.7500	.00125	.84835	25	23	51	50.1894	.00000	.99999
24	50	25	3.6818	.00130	.83457	25	24	50	46.6667	.00000	.99999
24	51	24	3.7500	.00127	.82471	25	25	49	43.2803	.00000	.99999
24	52	23	3.9545	.00117	.81636	25	26	48	40.0303	.00000	.99999
24	53	22	4.2955	.00102	.80848	25	27	47	36.9167	.00000	.99999
24	54	21	4.7727	.00083	.80155	25	28	46	33.9394	.00000	.99999
24	55	20	5.3864	.00063	.83239	25	29	45	31.0985	.00000	.99999
24	56	19	6.1364	.00045	.89563	25	30	44	28.3939	.00000	.99999
24	57	18	7.0227	.00030	.97046	25	31	43	25.8258	.00000	.99999
24	58	17	8.4455	.00019	.98262	25	32	42	23.3939	.00000	.99998
24	59	16	9.2045	.00011	.99040	25	33	41	21.0985	.00000	.99996
24	60	15	10.5000	.00006	.99520	25	34	40	18.9394	.00000	.99991
24	61	14	11.9516	.00003	.99745	25	35	39	16.9167	.00000	.99987
24	62	13	13.5000	.00001	.99887	25	36	38	15.0303	.00001	.99949
24	63	12	15.2045	.00001	.99952	25	37	37	13.2803	.00002	.99875
24	64	11	17.0455	.00000	.99986	25	38	36	11.6667	.00005	.99715
24	65	10	19.0227	.00000	.99992	25	39	35	10.1894	.00009	.99378
24	66	9	21.1364	.00000	.99997	25	40	34	8.8445	.00015	.98806
24	67	8	23.3864	.00000	.99998	25	41	33	7.6439	.00025	.97884
24	68	7	25.7727	.00000	.99999	25	42	32	6.5758	.00039	.96319
24	69	6	28.2955	.00000	.99999	25	43	31	5.6439	.00058	.94140
24	70	5	30.9545	.00000	.99999	25	44	30	4.8485	.00081	.91439
24	71	4	33.7500	.00000	.99999	25	45	29	4.1894	.00109	.88229
24	72	3	36.6818	.00000	.99999	25	46	28	3.6667	.00137	.83174
24	73	2	39.7500	.00000	.99999	25	47	27	3.2803	.00163	.80592
24	74	1	42.9545	.00000	.99999	25	48	26	3.0303	.00183	.78374
24	75	0	46.2955	.00000	.99999	25	49	25	2.9167	.00195	.77172
25	1	74	168.8485	.00000	.99999	25	50	24	2.9394	.00195	.77582
25	1	73	162.1894	.00000	.99999	25	51	23	3.0985	.00183	.75821
25	2	72	155.6667	.00000	.99999	25	52	22	3.3939	.00162	.82263
25	3	71	149.2803	.00000	.99999	25	53	21	3.8258	.00135	.85641
25	4	70	143.3303	.00000	.99999	25	54	20	4.3935	.00105	.89042
25	5	69	138.3167	.00000	.99999	25	55	19	5.0985	.00076	.92472
25	6	68	133.9394	.00000	.99999	25	56	18	5.9394	.00052	.94990
25	7	67	129.9850	.00000	.99999	25	57	17	6.9167	.00033	.96863
25	8	66	119.3939	.00000	.99999	25	58	16	8.0303	.00019	.98199
25	9	65	113.8258	.00006	.99999	25	59	15	9.2803	.00010	.99104
25	10	64	108.3939	.00000	.99999	25	60	14	10.6667	.00005	.99553

(9)

TABLE C

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
25	61	13	12.1894	.00002	.99799	26	36	37	13.1667	.00003	.99861
25	62	12	13.8485	.00001	.99910	26	37	36	11.5076	.00005	.99965
25	63	11	15.6439	.00000	.99961	26	38	35	9.9688	.00010	.99348
25	64	10	17.5758	.00000	.99985	26	39	34	8.5985	.00017	.98749
25	65	9	19.6439	.00000	.99994	26	40	33	7.3485	.00029	.97635
25	66	8	21.8485	.00000	.99998	26	41	32	6.2348	.00047	.95754
25	67	7	24.1894	.00000	.99999	26	42	31	5.2576	.00072	.92870
25	68	6	26.6667	.00000	.99999	26	43	30	4.4167	.00103	.89437
25	69	5	29.2803	.00000	.99999	26	44	29	3.7121	.00141	.84014
25	70	4	32.0303	.00000	.99999	26	45	28	3.1439	.00182	.79887
25	71	3	34.9167	.00000	.99999	26	46	27	2.7121	.00221	.73722
25	72	2	37.9894	.00000	.99999	26	47	26	2.4167	.00254	.71303
25	73	1	41.0985	.00000	.99999	26	48	25	2.2576	.00275	.69144
25	74	0	44.3939	.00000	.99999	26	49	24	2.2348	.00281	.66830
26	0	73	163.7121	.00000	.99999	26	50	23	2.3485	.00270	.66930
26	1	72	157.1439	.00000	.99999	26	51	22	2.5985	.00243	.72309
26	2	71	150.7121	.00000	.99999	26	52	21	2.9848	.00206	.77982
26	3	70	144.4167	.00000	.99999	26	53	20	3.5076	.00163	.82849
26	4	69	138.2576	.00000	.99999	26	54	19	4.1667	.00121	.87791
26	5	68	132.2348	.00000	.99999	26	55	18	4.9621	.00083	.91892
26	6	67	126.3485	.00000	.99999	26	56	17	5.8939	.00054	.94716
26	7	66	120.5985	.00000	.99999	26	57	16	6.9621	.00032	.96918
26	8	65	114.9848	.00000	.99999	26	58	15	8.1667	.00018	.98342
26	9	64	109.5076	.00000	.99999	26	59	14	9.5076	.00009	.99187
26	10	63	104.1867	.00000	.99999	26	60	13	10.9848	.00004	.99619
26	11	62	98.9621	.00000	.99999	26	61	12	12.5985	.00002	.99822
26	12	61	93.8939	.00000	.99999	26	62	11	14.3485	.00001	.99924
26	13	60	88.9621	.00000	.99999	26	63	10	16.2348	.00000	.99969
26	14	59	84.1667	.00000	.99999	26	64	9	18.2576	.00000	.99989
26	15	58	79.5076	.00000	.99999	26	65	8	20.4167	.00000	.99996
26	16	57	74.9848	.00000	.99999	26	66	7	22.7121	.00000	.99998
26	17	56	70.5985	.00000	.99999	26	67	6	25.1439	.00000	.99999
26	18	55	66.3485	.00000	.99999	26	68	5	27.7121	.00000	.99999
26	19	54	62.2348	.00000	.99999	26	69	4	30.4167	.00000	.99999
26	20	53	58.2576	.00000	.99999	26	70	3	33.2576	.00000	.99999
26	21	52	54.4167	.00000	.99999	26	71	2	36.2348	.00000	.99999
26	22	51	50.7121	.00000	.99999	26	72	1	39.3485	.00000	.99999
26	23	50	47.1439	.00000	.99999	26	73	0	42.5985	.00000	.99999
26	24	49	43.7121	.00000	.99999	27	0	72	158.7273	.00000	.99999
26	25	48	40.4167	.00000	.99999	27	1	71	152.2500	.00000	.99999
26	26	47	37.2976	.00000	.99999	27	2	70	145.9091	.00000	.99999
26	27	46	34.2348	.00000	.99999	27	3	69	139.7045	.00000	.99999
26	28	45	31.3485	.00000	.99999	27	4	68	133.6364	.00000	.99999
26	29	44	28.5985	.00000	.99999	27	5	67	127.7045	.00000	.99999
26	30	43	25.9848	.00000	.99999	27	6	66	121.9491	.00000	.99999
26	31	42	23.5076	.00000	.99999	27	7	65	116.2500	.00000	.99999
26	32	41	21.1667	.00000	.99997	27	8	64	110.7273	.00000	.99999
26	33	40	18.9621	.00000	.99992	27	9	63	105.3409	.00000	.99999
26	34	39	16.8939	.00001	.99978	27	10	62	100.0909	.00000	.99999
26	35	38	14.9621	.00001	.99944	27	11	61	94.9773	.00000	.99999

(10)

TABLE C

CHI SQUARE - P(1/3), P(4/9), P(2(2/9)) N=99

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
27	12	61	90.0000	.00000	.99999	27	62	10	15.0000	.00000	.99994
27	13	59	85.1591	.00000	.99999	27	63	9	16.9773	.00000	.99979
27	14	58	80.4545	.00006	.99999	27	64	8	19.0919	.00000	.99992
27	15	57	75.8464	.00000	.99999	27	65	7	21.3469	.00000	.99997
27	16	56	71.4545	.00000	.99999	27	66	6	23.7273	.00000	.99998
27	17	55	67.1591	.00000	.99999	27	67	5			

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
29	67	3	28.9167	0.0000	.99999	30	46	23	4.051	.00717	.18322
29	68	2	31.7576	0.0000	.99999	30	47	22	4.773	.00701	.21849
29	69	1	34.7348	0.0000	.99999	30	48	21	6.818	.00643	.29058
29	70	0	37.8465	0.0000	.99999	30	49	20	1.0227	.00551	.40021
30	0	69	144.6818	0.0000	.99999	30	50	19	1.5000	.00441	.52033
30	1	68	158.4773	0.0000	.99999	30	51	18	2.1136	.00329	.647315
30	2	67	132.4091	0.0000	.99999	30	52	17	2.8636	.00227	.757079
30	3	66	126.4773	0.0000	.99999	30	53	165	3.7500	.00146	.84563
30	4	65	124.6818	0.0000	.99999	30	54	155	4.7727	.00086	.90868
30	5	64	115.4227	0.0000	.99999	30	55	145	5.9318	.00047	.94843
30	6	63	109.5000	0.0000	.99999	30	56	13	7.2273	.00024	.97439
30	7	62	104.1136	0.0000	.99999	30	57	12	8.6591	.00011	.98748
30	8	61	98.8636	0.0000	.99999	30	58	11	10.2273	.00004	.99399
30	9	60	93.7500	0.0000	.99999	30	59	10	11.9318	.00002	.99756
30	10	59	88.7727	0.0000	.99999	30	60	9	13.7727	.00001	.99974
30	11	58	83.9318	0.0000	.99999	30	61	8	15.7500	.00000	.99962
30	12	57	79.2273	0.0000	.99999	30	62	7	17.8636	.00000	.99986
30	13	56	74.6591	0.0000	.99999	30	63	6	20.1136	.00000	.99999
30	14	55	70.2273	0.0000	.99999	30	64	5	22.5727	.00000	.99998
30	15	54	65.9318	0.0000	.99999	30	65	4	25.0227	.00000	.99999
30	16	53	61.7727	0.0000	.99999	30	66	3	27.6818	.00000	.99999
30	17	52	57.7500	0.0000	.99999	30	67	2	30.4773	.00000	.99999
30	18	51	53.8636	0.0000	.99999	30	68	1	33.4091	.00000	.99999
30	19	50	50.1136	0.0000	.99999	30	69	0	36.4773	.00000	.99999
30	20	49	46.5000	0.0000	.99999	31	0	68	14.3030	.00000	.99999
30	21	48	43.0227	0.0000	.99999	31	1	67	13.1894	.00000	.99999
30	22	47	39.6818	0.0000	.99999	31	2	66	12.0212	.00000	.99999
30	23	46	36.4773	0.0000	.99999	31	3	65	12.2371	.00000	.99999
30	24	45	33.4091	0.0000	.99999	31	4	64	11.6667	.00000	.99999
30	25	44	30.4773	0.0000	.99999	31	5	63	11.0985	.00000	.99999
30	26	43	27.6818	0.0000	.99999	31	6	62	10.5667	.00000	.99999
30	27	42	25.0227	0.0000	.99999	31	7	61	10.0371	.00000	.99999
30	28	41	22.5000	0.0000	.99999	31	8	60	9.5121	.00000	.99999
30	29	40	20.1136	0.0000	.99999	31	9	59	9.01894	.00000	.99999
30	30	39	17.8636	0.0000	.99999	31	10	58	8.53030	.00000	.99999
30	31	38	15.7500	0.0000	.99999	31	11	57	8.05330	.00000	.99999
30	32	37	13.7727	0.0002	.99995	31	12	56	7.59394	.00000	.99999
30	33	36	11.9318	0.0004	.99976	31	13	55	7.14621	.00000	.99999
30	34	35	10.2273	0.0008	.99413	31	14	54	6.71212	.00000	.99999
30	35	34	8.6591	0.0016	.98748	31	15	53	6.29167	.00000	.99999
30	36	335	7.2273	0.0031	.974705	31	16	52	5.88485	.00000	.99999
30	37	325	5.9318	0.0055	.94988	31	17	51	5.49167	.00000	.99999
30	38	315	4.7727	0.0093	.91698	31	18	50	5.12121	.00000	.99999
30	39	305	3.7500	0.0147	.851675	31	19	49	4.76621	.00000	.99999
30	40	295	2.8636	0.0221	.75935	31	20	48	4.39394	.00000	.99999
30	41	285	2.1136	0.0312	.650435	31	21	47	4.05330	.00000	.99999
30	42	27	1.5000	0.0417	.527305	31	22	46	3.73030	.00000	.99999
30	43	265	1.0227	0.0523	.40544	31	23	45	3.41894	.00000	.99999
30	44	255	.6818	0.0616	.28316	31	24	44	3.12121	.00000	.99999
30	45	245	.4773	0.0687	.22536	31	25	43	2.83712	.00000	.99999

(13)

TABLE C

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
31	26	42	25.6667	0.0000	.99999	32	7	60	96.7803	0.0000	.99999
31	27	41	23.0985	0.0000	.99999	32	8	59	91.7121	0.0000	.99999
31	28	40	20.6667	0.0000	.99999	32	9	58	86.7803	0.0000	.99999
31	29	39	18.3712	0.0000	.99999	32	10	57	81.9848	0.0000	.99999
31	30	38	16.2121	0.0001	.99969	32	11	56	77.32585	0.0000	.99999
31	31	37	14.1894	0.0001	.99921	32	12	55	72.8030	0.0000	.99999
31	32	36	12.5030	0.0003	.99803	32	13	54	68.4167	0.0003	.99999
31	33	35	10.5530	0.0007	.99536	32	14	53	64.1667	0.0000	.99999
31	34	34	8.9394	0.0014	.98887	32	15	52	60.1530	0.0000	.99999
31	35	33	7.4621	0.0027	.97689	32	16	51	56.9758	0.0000	.99999
31	36	32	6.1212	0.0049	.95512	32	17	50	52.2348	0.0000	.99999
31	37	31	4.9167	0.0085	.91671	32	18	495	48.5303	0.0000	.99999
31	38	30	3.8485	0.0139	.85900	32	19	48	44.9621	0.0000	.99999
31	39	29	2.9167	0.0214	.76762	32	20	47	41.5303	0.0000	.99999
31	40	28	2.1212	0.0310	.656595	32	21	46	38.2348	0.0000	.99999
31	41	27	1.4621	0.0423	.50266	32	22	455	35.5758	0.0000	.99999
31	42	26	.9394	0.0544	.373225	32	23	44	32.0530	0.0000	.99999
31	43	25	.5530	0.0658	.252335	32	24	435	29.1667	0.0000	.99999
31	44	24	.3430	0.0748	.15419	32	25	425	26.4167	0.0000	.99999
31	45	23	.1894	0.0798	.092125	32	26	415	23.8030	0.0000	.99999
31	46	22	.2121	0.0798	.07979	32	27	405	21.3258	0.0000	.99997
31	47	21	.37125	0.0747	.168845	32	28	395	18.9848	0.0000	.99992
31	48	20	.6667	0.0653	.27801	32	29	385	16.78035	0.0000	.999775
31	49	19	1.0985	0.0533	.436185	32	30	375	14.71215	0.0001	.99931
31	50	18	1.6667	0.0405	.57521	32	31	365	12.78035	0.0002	.998315
31	51	17	2.37125	0.0266	.70238	32	32	355	10.98485	0.0005	.99615
31	52	16	3.2121	0.0187	.80245	32	33	345	9.32585	0.0011	.99120
31	53	15	4.18945	0.0113	.88121	32	34	33	7.8030	0.0022	.980545
31	54	14	5.30305	0.0063	.93558	32	35	325	6.41675	0.0042	.960175
31	55	13	6.5530	0.0032	.96253	32	36	315	5.16675	0.0074	.92742
31	56	12	7.9394	0.0015	.98135	32	37	305	4.0530	0.0124	.86883
31	57	11	9.46215	0.0006	.99151	32	38	29	3.07585	0.0195	.789045
31	58	10	11.1212	0.0002	.99638	32	39	285	2.23485	0.0291	.57412
31	59	9	12.91675	0.0001	.998485	32	40	275	1.53035	0.0407	.54394
31	60	8	14.84855	0.0000	.999405	32	41	265	.96215	0.0536	.384185
31	61	7	16.9167	0.0000	.999785	32	42	255	.5303	0.0663	.23892
31	62	6	19.1212	0.0000	.999935	32	43	245	.23485	0.0771	.123655
31	63	5	21.46215	0.0000	.99997	32	44	235	.07585	0.0841	.05989
31	64	4	23.93945	0.0000	.999985	32	45	22	.05305	0.0860	.02593
31	65	3	26.55305	0.0000	.999995	32	46	215	.1667	0.0823	.07610
31	66	2	29.38305	0.0000	.999995	32	47	20	.4167	0.0735	.19755
31	67	1	32.18945	0.0000	.999995	32	48	195	.80305	0.0613	.33936
31	68	0	35.2121	0.0000	.999995	32	49	185	1.32585	0.0475	.48889
32	0	67	136.0758	0.0000	.999995	32	50	17	1.98485	0.0342	.62514
32	1	66	130.05305	0.0000	.999995	32	51	165	2.78035	0.0228	.750785
32	2	65	124.1667	0.0000	.999995	32	52	155	3.71215	0.0140	.838735
32	3	64	118.41675	0.0000	.999995	32	53	14	4.7803	0.0079	.91122
32	4	63	112.80305	0.0000	.999995	32	54	135	5.98485	0.0041	.95126
32	5	62	107.3258	0.0000	.999995	32	55	125	7.32585	0.0019	.97560
32	6	61	101.98485	0.0000	.999995	32	56	115	8.80305	0.0008	.98785

(14)

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
32	57	1	10.4167	0.0003	.99476	33	39	27	1.7045	.00370	.59428
32	58	9	12.1667	0.0001	.997955	33	40	26	1.9999	.00499	.41572
32	59	8	14.0530	0.0000	.999185	33	41	25	.6136	.00633	.26535
32	60	7	15.0758	0.0000	.999675	33	42	24	.2727	.00754	.13933
32	61	6	16.2								



TABLE C

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

Table with 12 columns: U, V, W, X2, P(A), CUM P(C), U, V, W, X2, P(A), CUM P(C). Contains 36 rows of numerical data.

(17)

Table with 12 columns: U, V, W, X2, P(A), CUM P(C), U, V, W, X2, P(A), CUM P(C). Contains 36 rows of numerical data.

(18)

TABLE C

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

Table with 12 columns: U, V, W, X2, P(A), CUM P(C), U, V, W, X2, P(A), CUM P(C). Contains 36 rows of numerical data.

(19)

Table with 12 columns: U, V, W, X2, P(A), CUM P(C), U, V, W, X2, P(A), CUM P(C). Contains 36 rows of numerical data.

(20)

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
42	22	35	21.1364	0.0000	.99997	43	14	42	41.6667	0.0000	.99999
42	23	34	19.0227	0.0000	.99992	43	15	41	38.5530	0.0000	.99999
42	24	33	17.0455	0.0000	.99980	43	16	40	35.5758	0.0000	.99999
42	25	32	15.2045	0.0000	.99951	43	17	39	32.7346	0.0000	.99999
42	26	317	13.5000	0.0001	.99886	43	18	38	30.0303	0.0000	.99999
42	27	30	11.9318	0.0002	.99742	43	19	37	27.4621	0.0000	.99999
42	28	29	10.5000	0.0004	.99514	43	20	36	25.0303	0.0000	.99999
42	29	28	9.2045	0.0007	.99200	43	21	35	22.7346	0.0000	.99988
42	30	27	8.0455	0.0013	.98729	43	22	34	20.5758	0.0000	.99986
42	31	26	7.0227	0.0023	.97916	43	23	33	18.5530	0.0000	.99980
42	32	25	6.1364	0.0037	.95587	43	24	32	16.6667	0.0000	.99975
42	33	24	5.3864	0.0057	.93175	43	25	31	14.9167	0.0000	.99941
42	34	23	4.7727	0.0080	.90472	43	26	30	13.3030	0.0001	.99872
42	35	22	4.2955	0.0105	.88446	43	27	29	11.8258	0.0002	.99728
42	36	21	3.9545	0.0128	.86419	43	28	28	10.4848	0.0004	.99484
42	37	20	3.7500	0.0146	.84309	43	29	27	9.2803	0.0007	.99074
42	38	19	3.6818	0.0153	.83228	43	30	26	8.2121	0.0012	.98366
42	39	18	3.7500	0.0149	.84613	43	31	25	7.2833	0.0021	.97491
42	40	177	3.9545	0.0134	.86291	43	32	24	6.4848	0.0133	.96884
42	41	167	4.2955	0.0112	.88341	43	33	23	5.8258	0.0247	.94290
42	42	157	4.7727	0.0088	.91192	43	34	22	5.3030	0.0364	.92934
42	43	147	5.3864	0.0055	.93298	43	35	21	4.9167	0.0361	.91520
42	44	13	6.1364	0.0036	.95644	43	36	20	4.6667	0.0394	.89895
42	45	12	7.0227	0.0022	.98393	43	37	19	4.5530	0.0102	.89538
42	46	11	8.0455	0.0011	.98211	43	38	18	4.5758	0.0102	.89271
42	47	10	9.2045	0.0003	.99023	43	39	17	4.7348	0.0039	.90607
42	48	9	10.5000	0.0002	.99511	43	40	16	5.0303	0.0000	.92268
42	49	8	11.9318	0.0001	.99751	43	41	15	5.4621	0.0002	.93421
42	50	7	13.5000	0.0000	.99887	43	42	14	6.0303	0.0044	.95388
42	51	6	15.2045	0.0000	.99951	43	43	13	6.7348	0.0229	.96541
42	52	5	17.0455	0.0000	.99986	43	44	12	7.5758	0.0517	.97747
42	53	4	19.0227	0.0000	.99992	43	45	11	8.5530	0.0709	.98656
42	54	3	21.1364	0.0000	.99997	43	46	10	9.6667	0.0894	.99223
42	55	2	23.3864	0.0000	.99998	43	47	9	10.9167	0.0302	.99600
42	56	1	25.7727	0.0000	.99999	43	48	8	12.3030	0.0301	.99779
42	57	0	29.2955	0.0000	.99999	43	49	7	13.8258	0.0000	.99907
43	0	56	99.5758	0.0000	.99999	43	50	6	15.4848	0.0000	.99959
43	1	55	94.5530	0.0000	.99999	43	51	5	17.2803	0.0000	.99983
43	2	54	89.6667	0.0000	.99999	43	52	4	19.2121	0.0000	.99993
43	3	53	84.9167	0.0000	.99999	43	53	3	21.2803	0.0000	.99997
43	4	52	80.3030	0.0000	.99999	43	54	2	23.4848	0.0000	.99998
43	5	51	75.8258	0.0000	.99999	43	55	1	25.8258	0.0000	.99999
43	6	50	71.4848	0.0000	.99999	43	56	0	28.3030	0.0000	.99999
43	7	49	67.2803	0.0000	.99999	44	0	55	97.1667	0.0000	.99999
43	8	48	63.2121	0.0000	.99999	44	1	54	92.2434	0.0000	.99999
43	9	47	59.2803	0.0000	.99999	44	2	53	87.4374	0.0000	.99999
43	10	46	55.4848	0.0000	.99999	44	3	52	82.7803	0.0000	.99999
43	11	45	51.8258	0.0000	.99999	44	4	51	78.2376	0.0000	.99999
43	12	44	48.3030	0.0000	.99999	44	5	50	73.8712	0.0000	.99999
43	13	43	44.9167	0.0000	.99999	44	6	49	69.6212	0.0000	.99999

(21)

TABLE C

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
44	7	48	65.5076	0.0000	.99999	45	1	53	90.1682	0.0000	.99999						
44	8	47	61.5303	0.0000	.99999	45	2	52	85.3636	0.0000	.99999						
44	9	46	57.6694	0.0000	.99995	45	3	51	80.7955	0.0000	.99995						
44	10	45	53.9848	0.0000	.99999	45	4	50	76.3636	0.0000	.99999						
44	11	44	50.4167	0.0000	.99999	45	5	49	72.0682	0.0000	.99999						
44	12	43	46.9848	0.0000	.99999	45	6	48	67.9091	0.0000	.99999						
44	13	42	43.6894	0.0000	.99999	45	7	47	63.8864	0.0000	.99999						
44	14	41	40.5303	0.0000	.99999	45	8	46	60.0000	0.0000	.99999						
44	15	40	37.5076	0.0000	.99999	45	9	45	56.2500	0.0000	.99999						
44	16	39	34.6212	0.0000	.99999	45	10	44	52.6364	0.0000	.99999						
44	17	38	31.8712	0.0000	.99999	45	11	43	49.1591	0.0000	.99999						
44	18	37	29.2576	0.0000	.99999	45	12	42	45.8182	0.0000	.99999						
44	19	36	26.7803	0.0000	.99999	45	13	41	42.6136	0.0000	.99999						
44	20	35	24.4394	0.0000	.99999	45	14	40	39.5455	0.0000	.99999						
44	21	34	22.2348	0.0000	.99998	45	15	39	36.6136	0.0000	.99999						
44	22	33	20.1667	0.0000	.99995	45	16	38	33.8182	0.0000	.99999						
44	23	32	18.2348	0.0000	.99988	45	17	37	31.1591	0.0000	.99999						
44	24	31	16.4394	0.0000	.99973	45	18	36	28.6364	0.0000	.99999						
44	25	30	14.7803	0.0000	.99934	45	19	35	26.2500	0.0000	.99987						
44	26	29	13.2576	0.0001	.99865	45	20	34	24.0000	0.0000	.99988						
44	27	28	11.8712	0.0002	.99738	45	21	33	21.8864	0.0000	.99988						
44	28	27	10.5212	0.0003	.99541	45	22	32	19.9191	0.0000	.99994						
44	29	26	9.3076	0.0006	.99172	45	23	31	18.1682	0.0000	.99967						
44	30	25	8.2303	0.0011	.98634	45	24	30	16.6364	0.0000	.99969						
44	31	24	7.2894	0.0018	.97926	45	25	29	14.7955	0.0000	.99937						
44	32	23	6.4848	0.0027	.96945	45	26	28	13.3636	0.0001	.99879						
44	33	22	5.8167	0.0037	.95947	45	27	27	12.0682	0.0002	.99878						
44	34	21	5.2848	0.0048	.95038	45	28	26	10.9091	0.0003	.99887						
44	35	20	4.8694	0.0056	.94197	45	29	25	9.8864	0.0006	.99284						
44	36	19	4.5303	0.0064	.93487	45	30	24	9.0000	0.0009	.98916						
44	37	18	4.2576	0.0066	.93656	45	31	23	8.2500	0.0014	.98424						
44	38	17	4.0303	0.0062	.93992	45	32	22	7.6364	0.0022	.97811						
44	39	16	3.8476	0.0054	.94488	45	33	21	7.1591	0.0027	.97276						
44	40	15	3.6976	0.0043	.95797	45	34	20	6.8182	0.0034	.96665						
44	41	14	3.5703	0.0032	.96644	45	35	19	6.6136	0.0038	.96397						
44	42	13	3.4394	0.0021	.97626	45	36	18	6.5455	0.0041	.96160						
44	43	12	3.3076	0.0013	.98395	45	37	17	6.5136	0.0039	.96358						
44	44	11	3.1667	0.0007	.99017	45	38	16	6.5182	0.0035	.96725						
44	45	10	3.0348	0.0003	.99417	45	39	15	6.5191	0.0029	.97315						
44	46	9	2.9194	0.0001	.99657	45	40	14	6.5364	0.0022	.97771						
44	47	8	2.8103	0.0001	.99826	45	41	13	6.5500	0.0015	.98453						
44	48	7	2.7076	0.0000	.99921	45	42	12	6.5600	0.0009	.98935						
44	49	6	2.6076	0.0000	.99966	45	43	11	6.5664	0.0005	.99279						
44	50	5	2.5076	0.0000	.99982	45	44	10	6.5691	0.0003	.99593						
44	51	4	2.4076	0.0000	.99994	45	45	9	6.5682	0.0001	.99776						
44	52	3	2.3076	0.0000	.99997	45	46	8	6.5636	0.0000	.99977						
44	53	2	2.2076	0.0000	.99998	45	47	7	6.5558	0.0000	.99937						
44	54	1	2.1076	0.0000	.99999	45	48	6	6.5436	0.0000	.99969						
44	55	0	2.0076	0.0000	.99999	45	49	5	6.5262	0.0000	.99987						
45	0	54	94.9091	0.0000	.99999	45	50	4	6.5091	0.0000	.99994						

(22)

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
45	51	3	21.8864	0.0000	.99998	46	46	7	15.4394	0.0000	.99959
45	52	2	20.0690	0.0000	.99998	46	47	6	16.9621	0.0000	.99979
45	53	1	26.2500	0.0000	.99999	46	48	5	18.6212	0.0000	.99990
45	54	0	28.6364	0.0000	.99999	46	49	4	20.4167	0.0000	.99996
45	5	53	92.8836	0.0000	.99999	46	50	3	22.3485	0.	

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
49	37	13	12.5530	.00002	.99815	50	36	13	11.8939	.00001	.99913
49	38	12	13.1212	.00002	.99848	50	37	12	14.4167	.00001	.99926
49	39	11	13.8258	.00001	.99906	50	38	11	15.9758	.00001	.99950
49	40	10	14.6667	.00001	.99933	50	39	10	18.8712	.00000	.99966
49	41	9	15.6439	.00000	.99960	50	40	9	24.1803	.00000	.99977
49	42	8	16.7576	.00000	.99975	50	41	8	32.9172	.00000	.99986
49	43	7	18.0076	.00000	.99987	50	42	7	46.0758	.00000	.99992
49	44	6	19.3939	.00000	.99993	50	43	6	66.4167	.00000	.99996
49	45	5	20.9167	.00000	.99996	50	44	5	94.8939	.00000	.99996
49	46	4	22.5758	.00000	.99998	50	45	4	133.5076	.00000	.99998
49	47	3	24.3712	.00000	.99999	50	46	3	186.2576	.00000	.99999
49	48	2	26.3030	.00000	.99999	50	47	2	262.1439	.00000	.99999
49	49	1	28.3712	.00000	.99999	50	48	1	365.1667	.00000	.99999
49	50	0	30.5758	.00000	.99999	50	49	0	500.3258	.00000	.99999
50	0	49	85.8939	.00000	.99999	51	0	48	84.3455	.00000	.99999
50	1	48	81.5076	.00000	.99999	51	1	47	80.2500	.00000	.99999
50	2	47	77.2576	.00000	.99999	51	2	46	76.0909	.00000	.99999
50	3	46	73.1439	.00000	.99999	51	3	45	72.0682	.00000	.99999
50	4	45	69.1667	.00000	.99999	51	4	44	68.1818	.00000	.99999
50	5	44	65.3258	.00000	.99999	51	5	43	64.4318	.00000	.99999
50	6	43	61.6212	.00000	.99999	51	6	42	60.8182	.00000	.99999
50	7	42	58.0530	.00000	.99999	51	7	41	57.2409	.00000	.99999
50	8	41	54.6212	.00000	.99999	51	8	40	54.0000	.00000	.99999
50	9	40	51.3258	.00000	.99999	51	9	39	50.7955	.00000	.99999
50	10	39	48.1667	.00000	.99999	51	10	38	47.7273	.00000	.99999
50	11	38	45.1439	.00000	.99999	51	11	37	44.7955	.00000	.99999
50	12	37	42.2576	.00000	.99999	51	12	36	42.0000	.00000	.99999
50	13	36	39.5076	.00000	.99999	51	13	35	39.3409	.00000	.99999
50	14	35	36.8939	.00000	.99999	51	14	34	36.8182	.00000	.99999
50	15	34	34.4167	.00000	.99999	51	15	33	34.4318	.00000	.99999
50	16	33	32.0758	.00000	.99999	51	16	32	32.1818	.00000	.99999
50	17	32	29.8712	.00000	.99999	51	17	31	30.0682	.00000	.99999
50	18	31	27.8030	.00000	.99999	51	18	30	28.0909	.00000	.99999
50	19	30	25.8712	.00000	.99999	51	19	29	26.2500	.00000	.99999
50	20	29	24.0758	.00000	.99999	51	20	28	24.5455	.00000	.99999
50	21	28	22.4167	.00000	.99996	51	21	27	22.9773	.00000	.99998
50	22	27	20.8939	.00000	.99996	51	22	26	21.5455	.00000	.99997
50	23	26	19.5076	.00000	.99994	51	23	25	20.2500	.00000	.99995
50	24	25	18.2576	.00000	.99989	51	24	24	19.0909	.00000	.99992
50	25	24	17.1439	.00000	.99981	51	25	23	18.0682	.00000	.99987
50	26	23	16.1667	.00000	.99975	51	26	22	17.1818	.00000	.99983
50	27	22	15.3258	.00000	.99970	51	27	21	16.4318	.00000	.99972
50	28	21	14.6212	.00001	.99969	51	28	20	15.8182	.00000	.99965
50	29	20	14.0530	.00001	.99966	51	29	19	15.3409	.00001	.99966
50	30	19	13.6212	.00001	.99968	51	30	18	15.0000	.00001	.99965
50	31	18	13.3258	.00002	.99967	51	31	17	14.7955	.00001	.99966
50	32	17	13.1667	.00002	.99967	51	32	16	14.7273	.00001	.99962
50	33	16	13.1439	.00002	.99965	51	33	15	14.7955	.00001	.99965
50	34	15	13.2576	.00002	.99964	51	34	14	15.0000	.00001	.99965
50	35	14	13.5076	.00002	.99961	51	35	13	15.3409	.00001	.99966

(25)

TABLE C

U	V	W	X2	P(A)	CUM P(C)	U	V	W	X2	P(A)	CUM P(C)
51	36	12	15.8182	.00000	.99965	52	37	10	18.5985	.00000	.99990
51	37	11	16.4318	.00000	.99972	52	38	9	19.4394	.00000	.99994
51	38	10	17.1818	.00000	.99983	52	39	8	20.4167	.00000	.99996
51	39	9	18.0682	.00000	.99987	52	40	7	21.5303	.00000	.99997
51	40	8	19.0909	.00000	.99992	52	41	6	22.7803	.00000	.99998
51	41	7	20.2500	.00000	.99995	52	42	5	24.1667	.00000	.99999
51	42	6	21.5455	.00000	.99997	52	43	4	25.6894	.00000	.99999
51	43	5	22.9773	.00000	.99998	52	44	3	27.3485	.00000	.99999
51	44	4	24.5455	.00000	.99999	52	45	2	29.1439	.00000	.99999
51	45	3	26.2500	.00000	.99999	52	46	1	31.0758	.00000	.99999
51	46	2	28.0909	.00000	.99999	52	47	0	33.1439	.00000	.99999
51	47	1	30.0682	.00000	.99999	53	0	46	82.3030	.00000	.99999
51	48	0	32.1818	.00000	.99999	53	1	45	78.1894	.00000	.99999
52	0	47	83.3485	.00000	.99999	53	2	44	74.2121	.00000	.99999
52	1	46	79.1439	.00000	.99999	53	3	43	70.3712	.00000	.99999
52	2	45	75.0758	.00000	.99999	53	4	42	66.6667	.00000	.99999
52	3	44	71.1439	.00000	.99999	53	5	41	63.0985	.00000	.99999
52	4	43	67.3485	.00000	.99999	53	6	40	59.6667	.00000	.99999
52	5	42	63.6894	.00000	.99999	53	7	39	56.3712	.00000	.99999
52	6	41	60.1667	.00000	.99999	53	8	38	53.2121	.00000	.99999
52	7	40	56.7803	.00000	.99999	53	9	37	50.1894	.00000	.99999
52	8	39	53.5303	.00000	.99999	53	10	36	47.3030	.00000	.99999
52	9	38	50.4167	.00000	.99999	53	11	35	44.5530	.00000	.99999
52	10	37	47.4394	.00000	.99999	53	12	34	41.9394	.00000	.99999
52	11	36	44.5985	.00000	.99999	53	13	33	39.4621	.00000	.99999
52	12	35	41.8939	.00000	.99999	53	14	32	37.1212	.00000	.99999
52	13	34	39.3258	.00000	.99999	53	15	31	34.9167	.00000	.99999
52	14	33	36.8939	.00000	.99999	53	16	30	32.8485	.00000	.99999
52	15	32	34.5985	.00000	.99999	53	17	29	30.9167	.00000	.99999
52	16	31	32.4394	.00000	.99999	53	18	28	29.1212	.00000	.99999
52	17	30	30.4167	.00000	.99999	53	19	27	27.4621	.00000	.99999
52	18	29	28.5303	.00000	.99999	53	20	26	25.9394	.00000	.99999
52	19	28	26.7803	.00000	.99999	53	21	25	24.5530	.00000	.99999
52	20	27	25.1667	.00000	.99999	53	22	24	23.3030	.00000	.99998
52	21	26	23.6894	.00000	.99998	53	23	23	22.1894	.00000	.99998
52	22	25	22.3485	.00000	.99998	53	24	22	21.2121	.00000	.99997
52	23	24	21.1439	.00000	.99997	53	25	21	20.3712	.00000	.99996
52	24	23	20.0758	.00000	.99995	53	26	20	19.6667	.00000	.99994
52	25	22	19.1439	.00000	.99993	53	27	19	19.0985	.00000	.99993
52	26	21	18.3485	.00000	.99989	53	28	18	18.6667	.00000	.99991
52	27	20	17.6894	.00000	.99986	53	29	17	18.3712	.00000	.99989
52	28	19	17.1667	.00000	.99982	53	30	16	18.2121	.00000	.99988
52	29	18	16.7803	.00000	.99976	53	31	15	18.1894	.00000	.99988
52	30	17	16.5303	.00000	.99974	53	32	14	18.3030	.00000	.99989
52	31	16	16.4167	.00000	.99971	53	33	13	18.5530	.00000	.99990
52	32	15	16.4394	.00000	.99972	53	34	12	18.9394	.00000	.99991
52	33	14	16.5985	.00000	.99974	53	35	11	19.4621	.00000	.99994
52	34	13	16.8939	.00000	.99977	53	36	10	20.1212	.00000	.99995
52	35	12	17.3258	.00000	.99984	53	37	9	20.9167	.00000	.99996
52	36	11	17.8939	.00000	.99987	53	38	8	21.8485	.00000	.99998

(26)

TABLE C

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(C)
53	39	7	22.9167	.00000	.99998
53	40	6	24.1212	.00000	.99999
53	41	5	25.4621	.00000	.99999
53	42	4	26.9394	.00000	.99999
53	43	3	28.5530	.00000	.99999
53	44	2	30.3030	.00000	.99999
53	45	1	32.1894	.00000	.99999
53	46	0	34.2121	.00000	.99999
54	0	45	81.4091	.00000	.99999
54	1	44	77.3864	.00000	.99999
54	2	43	73.5000	.00000	.99999
54	3	42	69.7500	.00000	.99999
54	4	41			

TABLE D  
CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
33	44	22	0.5000	0.0880	0.0880	35	46	18	0.9394	0.00564	0.36228
32	45	22	0.5333	0.0860	0.1739	34	47	18	0.9621	0.00560	0.36788
35	43	21	0.6682	0.0860	0.2599	35	49	20	1.0227	0.00551	0.37340
34	43	22	0.5333	0.0854	0.3453	29	45	25	0.9167	0.00549	0.37889
34	44	21	0.7588	0.0854	0.4307	31	42	26	0.9394	0.00544	0.38433
32	44	23	0.7588	0.0841	0.5148	36	45	18	1.0227	0.00541	0.38974
33	43	23	0.6822	0.0841	0.5989	32	41	26	0.9621	0.00536	0.39509
32	46	21	1.6677	0.0823	0.6812	21	49	19	1.09854	0.00533	0.40043
35	43	21	1.8944	0.0805	0.7617	33	48	18	1.0909	0.00529	0.40572
34	42	23	1.6677	0.0798	0.8415	29	49	21	1.0985	0.00525	0.41097
31	45	23	1.8944	0.0798	0.9212	30	43	26	1.0227	0.00523	0.41620
31	46	22	2.1211	0.0798	1.0010	36	39	24	1.0227	0.00511	0.42131
34	45	22	2.3480	0.0797	1.0807	38	41	29	1.1439	0.00509	0.42644
35	42	22	2.1211	0.0787	1.1593	33	40	26	1.0909	0.00499	0.43139
35	46	20	2.7272	0.0785	1.2379	37	39	23	1.0985	0.00497	0.43636
32	43	24	2.3480	0.0771	1.3159	38	40	21	1.1667	0.00497	0.44133
35	44	20	3.0333	0.0768	1.3918	37	44	18	1.2121	0.00493	0.44626
33	44	24	2.7272	0.0754	1.4672	28	48	23	1.1667	0.00491	0.45118
31	44	24	3.0333	0.0748	1.5419	28	47	24	1.1439	0.00491	0.45609
31	47	21	3.7122	0.0747	1.6166	35	39	25	1.0985	0.00491	0.46100
32	47	20	4.1677	0.0735	1.6901	38	42	19	1.2576	0.00485	0.46585
35	42	21	4.0911	0.0721	1.7622	29	44	26	1.2121	0.00476	0.47060
35	41	23	3.7122	0.0718	1.8340	32	49	18	1.3258	0.00475	0.47535
30	46	23	4.0911	0.0717	1.9057	28	46	25	1.2576	0.00462	0.47997
35	43	22	4.7733	0.0704	1.9763	28	49	22	1.3258	0.00461	0.48458
35	47	22	4.7733	0.0701	2.0463	38	39	22	1.3258	0.00452	0.48910
34	41	244	4.1677	0.0698	2.1164	30	50	20	1.5000	0.00441	0.49351
34	46	19	3.3633	0.0693	2.1854	29	50	20	1.4848	0.00441	0.49792
35	41	22	4.7733	0.0688	2.2542	34	39	26	1.3258	0.00440	0.50232
30	45	24	4.7733	0.0687	2.3229	35	47	17	1.4621	0.00432	0.50664
35	45	19	5.5333	0.0683	2.3912	38	43	18	1.5076	0.00428	0.51093
33	47	19	6.1333	0.0668	2.4580	31	41	27	1.4621	0.00423	0.51516
32	42	25	5.5333	0.0668	2.5244	34	46	17	1.5000	0.00423	0.51939
31	48	20	5.5333	0.0658	2.5902	34	48	17	1.5303	0.00420	0.52359
31	48	20	6.6667	0.0653	2.6555	30	42	27	1.5000	0.00417	0.52776
30	48	21	6.6667	0.0643	2.7198	28	45	26	1.5076	0.00409	0.53184
35	44	19	6.6111	0.0640	2.7838	32	40	27	1.5303	0.00407	0.53591
33	41	25	6.1333	0.0633	2.8471	28	50	21	1.6212	0.00406	0.53997
30	44	25	6.6111	0.0618	2.9089	31	50	18	1.6667	0.00405	0.54402
37	42	20	7.5766	0.0614	2.9703	37	38	24	1.4848	0.00404	0.54806
37	41	21	7.5488	0.0614	3.0317	35	40	25	1.6364	0.00401	0.55207
36	40	23	6.6111	0.0613	3.0931	36	38	25	1.5000	0.00399	0.55606
35	44	24	6.6667	0.0613	3.1544	37	45	17	1.6439	0.00395	0.56001
32	48	19	6.0333	0.0613	3.2157	39	41	19	1.7045	0.00391	0.56392
29	47	23	7.3444	0.0610	3.2767	33	49	17	1.7045	0.00389	0.56781
23	46	24	7.5766	0.0597	3.3364	43	43	27	1.6439	0.00387	0.57168
23	46	22	8.4465	0.0585	3.3948	38	38	23	1.6212	0.00383	0.57551
37	40	25	8.0333	0.0573	3.4521	27	48	24	1.6364	0.00382	0.57933
37	40	22	8.8485	0.0572	3.5093	39	39	21	1.7045	0.00382	0.58315
37	43	19	9.1677	0.0571	3.5664	27	49	23	1.7045	0.00374	0.58690

(1)

TABLE D

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
33	39	27	1.7045	0.00370	0.59060	32	51	16	2.7803	0.00228	0.73756
35	38	26	1.6667	0.00368	0.59428	30	52	17	2.8636	0.00227	0.73943
27	47	25	1.7045	0.00367	0.59795	27	44	28	2.7273	0.00227	0.74210
39	42	18	1.9091	0.00354	0.60149	38	36	25	2.6212	0.00224	0.74434
38	44	17	1.8939	0.00350	0.60499	26	46	27	2.7121	0.00221	0.74655
29	51	19	2.0076	0.00346	0.60845	30	40	29	2.8636	0.00221	0.74876
27	50	22	1.9091	0.00344	0.61189	41	39	19	2.9167	0.00220	0.75096
32	50	17	1.9848	0.00342	0.61531	37	36	26	2.6667	0.00219	0.75315
28	44	27	1.8939	0.00340	0.61872	34	37	28	2.7803	0.00216	0.75531
39	38	22	1.9091	0.00339	0.62211	39	36	24	2.7273	0.00216	0.75746
28	51	20	2.0530	0.00334	0.62545	29	41	29	2.9167	0.00215	0.75962
27	46	26	1.9091	0.00332	0.62876	41	38	20	2.9394	0.00215	0.76177
30	51	18	2.1136	0.00329	0.63205	31	39	29	2.9167	0.00214	0.76390
34	38	27	1.9848	0.00318	0.63523	40	41	18	3.0303	0.00209	0.76599
30	41	28	2.1136	0.00312	0.63835	26	52	15	2.9848	0.00206	0.76805
31	40	28	2.1212	0.00310	0.64145	26	48	15	2.8636	0.00204	0.77009
37	37	25	2.0076	0.00307	0.64452	35	49	15	2.9167	0.00200	0.77209
35	48	16	2.1212	0.00306	0.64759	36	36	27	2.8636	0.00200	0.77409
36	47	16	2.1136	0.00306	0.65065	37	47	15	2.9167	0.00199	0.77607
38	37	24	2.0530	0.00303	0.65368	28	42	29	3.0758	0.00198	0.77806
40	39	20	2.2348	0.00301	0.65669	32	38	29	3.0758	0.00195	0.78001
40	40	19	2.2576	0.00301	0.65970	25	49	25	2.9167	0.00195	0.78196
29	42	28	2.2121	0.00298	0.66267	25	50	24	2.9394	0.00195	0.78390
27	51	21	2.2500	0.00297	0.66564	41	37	21	3.0985	0.00194	0.78585
39	43	17	2.2500	0.00296	0.66861	40	36	23	2.9848	0.00194	0.78779
37	46	16	2.2121	0.00292	0.67152	40	43	16	3.1439	0.00189	0.78968
36	37	26	2.2348	0.00292	0.67444	31	52	16	3.2121	0.00187	0.79155
36	37	26	2.1136	0.00291	0.67735	34	50	15	3.0758	0.00187	0.79341
32	51	17	2.2348	0.00291	0.68026	28	53	16	3.2528	0.00184	0.79526
31	51	17	2.3712	0.00286	0.68312	38	46	15	3.0758	0.00184	0.79710
27	45	27	2.2500	0.00282	0.68594	41	41	17	3.2803	0.00184	0.79894
26	49	24	2.2348	0.00281	0.68875	25	48	26	3.0303	0.00183	0.80077
39	37	23	2.2500	0.00280	0.69155	25	51	23	3.0985	0.00183	0.80260
40	38	21	2.3485	0.00279	0.69434	26	45	28	3.1439	0.00182	0.80442
26	48	25	2.4167	0.00279	0.69713	27	53	19	3.3409	0.00181	0.80623
26	48	25	2.2576	0.00275	0.69988	27	43	29	3.3409	0.00172	0.80795
28	50	23	2.3485	0.00270	0.70258	29	53	17	3.4621	0.00171	0.80967
36	43	28	2.4167	0.00268	0.70525	25	36	28	3.2121	0.00171	0.81138
36	43	28	2.4167	0.00265	0.70790	33	37	29	3.3409	0.00169	0.81307
33	50	16	2.4545	0.00264	0.71055	33	51	15	3.3439	0.00166	0.81472
35	37	27	2.3712	0.00259	0.71314	41	36	22	3.3939	0.00163	0.81636
33	38	28	2.4545	0.00257	0.71571	25	47	27	3.2803	0.00163	0.81799
28	52	19	2.6212	0.00257	0.71828	26	53	20	3.5076	0.00163	0.81962
26	47	26	2.4167	0.00254	0.72082	39	45	15	3.3409	0.00163	0.82125
29	52	18	2.6667	0.00253	0.72335	25	52	22	3.3939	0.00162	0.82287
26	51	22	2.5985	0.00243	0.72578	39	35	25	3.3409	0.00155	0.82442
40	37	22	2.5985	0.00241	0.72819	38	35	20	3.3258	0.00155	0.82597
27	52	17	2.7273	0.00240	0.73059	42	38	19	3.6818	0.00153	0.82751
40	42	17	2.7121	0.00239	0.73298	42	39	18	3.7500	0.00149	0.82900
39	44	16	2.7273	0.00229	0.73528	41	42	16	3.6667	0.00149	0.83049

(2)

TABLE D  
CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
30	39	30	3.7500	0.01147	0.03196	24	47	28	4.2955	0.00097	0.89268
23	40	30									

TABLE D

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
34	33	32	7.3258	.00025	.97233	36	52	11	7.2273	.00016	.98244
25	41	33	7.6439	.00025	.97258	30	35	34	8.6591	.00016	.98260
21	54	24	6.8182	.00025	.97283	40	48	11	7.3485	.00015	.98275
33	54	12	6.8182	.00024	.97307	37	31	31	8.0076	.00015	.98291
41	31	27	5.9167	.00024	.97331	22	45	32	8.2348	.00015	.98306
45	35	189	7.6894	.00024	.97355	35	53	11	7.4621	.00015	.98320
45	36	17	7.7121	.00024	.97378	25	40	34	8.8485	.00015	.98335
21	50	28	6.8182	.00024	.97402	45	41	13	8.2500	.00015	.98350
30	56	13	7.2273	.00024	.97426	31	56	12	7.9394	.00015	.98365
35	32	31	7.2273	.00023	.97449	27	58	14	8.4545	.00015	.98380
40	31	28	6.9621	.00023	.97472	46	32	21	8.4394	.00015	.98394
42	31	26	7.0227	.00023	.97495	23	43	33	8.5530	.00015	.98409
28	57	14	7.5076	.00023	.97518	20	53	26	7.6894	.00014	.98423
32	34	33	7.8030	.00022	.97540	45	31	239	8.2500	.00014	.98438
45	34	19	7.8030	.00022	.97562	46	39	149	8.5985	.00014	.98452
45	37	16	7.8712	.00022	.97584	20	52	279	7.7121	.00014	.98466
23	44	32	7.5758	.00022	.97606	31	34	349	8.9394	.00014	.98480
42	45	12	7.0227	.00022	.97628	20	54	25	7.8030	.00014	.98493
45	4	14	7.6364	.00022	.97649	47	35	17	8.9167	.00014	.98507
21	55	23	7.1591	.00021	.97671	21	57	21	8.2500	.00014	.98521
39	31	29	7.1591	.00021	.97692	41	47	11	7.6439	.00014	.98534
44	42	13	7.4394	.00021	.97714	22	58	19	8.5303	.00013	.98548
43	31	25	7.2603	.00021	.97734	47	34	18	8.9394	.00013	.98561
22	46	31	7.4394	.00021	.97755	42	30	27	8.0455	.00013	.98574
21	49	29	7.1591	.00020	.97776	41	30	26	8.9303	.00013	.98587
45	32	22	7.6364	.00020	.97796	20	51	28	7.8712	.00013	.98600
24	42	339	8.0455	.00020	.97816	21	47	31	8.2500	.00013	.98613
22	57	209	7.6894	.00020	.97835	47	36	16	9.0303	.00013	.98626
32	55	129	7.3258	.00019	.97855	34	54	11	7.8030	.00013	.98639
25	58	16	8.0455	.00019	.97874	44	43	12	8.2348	.00013	.98652
23	37	349	8.4157	.00019	.97893	20	55	24	8.0530	.00013	.98665
24	58	179	8.0455	.00019	.97911	40	30	29	8.1667	.00012	.98677
45	33	209	8.0530	.00019	.97933	43	30	26	8.2121	.00012	.98689
27	38	34	8.4545	.00019	.97949	34	32	33	8.8330	.00012	.98702
33	31	309	7.5076	.00019	.97967	24	41	34	9.2045	.00012	.98714
45	34	159	8.1667	.00018	.97986	47	33	19	9.0985	.00012	.98726
29	36	349	8.4848	.00018	.98004	36	31	32	6.5919	.00012	.98737
44	31	249	7.6894	.00018	.98022	20	50	29	8.1667	.00011	.98749
25	58	159	8.1667	.00018	.98039	42	46	11	8.0455	.00011	.98760
21	56	229	7.6364	.00018	.98057	47	37	15	9.2803	.00011	.98771
35	32	329	7.9394	.00018	.98074	39	30	30	8.4545	.00011	.98783
39	51	11	7.0758	.00017	.98092	28	58	13	8.8393	.00011	.98794
37	51	119	7.0985	.00017	.98109	44	30	25	8.5303	.00011	.98805
25	39	34	8.5985	.00017	.98126	32	33	34	9.3258	.00011	.98816
43	44	12	7.5758	.00017	.98144	24	59	16	9.2045	.00011	.98826
33	33	339	8.2500	.00017	.98161	30	57	12	8.6591	.00011	.98837
39	49	119	7.1591	.00017	.98177	20	56	23	8.4394	.00011	.98848
21	48	309	7.6364	.00017	.98194	46	31	22	8.9621	.00011	.98859
23	58	189	8.2121	.00017	.98211	33	55	11	8.2500	.00011	.98869
29	57	139	8.0476	.00017	.98227	25	59	15	9.2803	.00011	.98880

(5)

TABLE D

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
23	59	17	9.2803	.00010	.98890	21	45	33	9.8864	.00007	.99295
22	44	33	9.1667	.00010	.98900	22	43	34	10.2348	.00007	.99301
27	37	35	9.8864	.00010	.98910	20	58	21	9.6212	.00007	.99308
28	36	35	9.8939	.00010	.98920	40	36	15	10.5000	.00006	.99314
46	40	13	9.1667	.00010	.98930	44	29	26	9.5076	.00006	.99321
21	58	20	9.0000	.00010	.98940	47	39	13	10.1894	.00006	.99327
47	32	20	9.3939	.00010	.98950	46	41	12	9.8712	.00006	.99333
26	38	35	9.9848	.00010	.98959	31	57	11	9.4621	.00006	.99340
20	49	30	8.5985	.00010	.98969	40	29	30	9.5076	.00006	.99346
21	46	32	9.0000	.00010	.98978	41	48	10	8.8485	.00006	.99352
29	35	35	10.0076	.00009	.98988	48	32	19	10.5000	.00006	.99358
38	30	31	8.8939	.00009	.98997	35	54	10	8.9394	.00006	.99364
23	42	34	9.6667	.00009	.99006	19	51	29	9.2803	.00006	.99370
45	42	12	9.0000	.00009	.99015	19	56	24	9.3939	.00006	.99376
45	40	24	9.0000	.00009	.99024	34	31	34	10.4167	.00006	.99382
43	45	11	8.5530	.00009	.99034	24	60	13	10.9500	.00006	.99389
26	59	14	9.5076	.00009	.99043	23	60	14	10.4848	.00006	.99394
47	38	14	9.6667	.00009	.99051	20	47	32	9.8712	.00006	.99399
20	57	22	8.9621	.00009	.99060	23	41	35	10.9167	.00006	.99405
22	59	18	9.5076	.00009	.99068	45	29	25	9.8864	.00006	.99419
25	59	35	10.1894	.00009	.99077	36	30	33	10.2273	.00005	.99416
35	31	33	9.4621	.00008	.99086	39	29	31	9.8864	.00005	.99421
32	56	11	8.8030	.00008	.99094	42	47	10	9.2045	.00005	.99426
33	32	34	9.8182	.00008	.99102	47	30	22	10.3939	.00005	.99432
33	34	35	10.2273	.00008	.99110	48	37	14	10.8479	.00005	.99437
20	48	31	9.1667	.00008	.99118	22	35	36	10.6212	.00005	.99442
38	51	10	8.4167	.00008	.99126	27	35	36	11.4545	.00005	.99447
48	34	17	10.2273	.00007	.99133	32	32	35	10.9848	.00005	.99452
47	34	219	9.8258	.00007	.99141	25	60	14	10.8667	.00005	.99458
29	58	12	9.4848	.00007	.99148	34	55	10	9.3258	.00005	.99463
39	50	16	8.4545	.00007	.99155	59943	119	9.8864	.00005	.99468	
37	52	10	8.4848	.00007	.99163	19950	309	9.6667	.00005	.99473	
37	30	32	8.4848	.00007	.99171	26	37	36	11.9507	.00005	.99478
48	35	16	10.2955	.00007	.99179	19	57	23	9.8258	.00005	.99483
46	30	23	9.6212	.00007	.99187	28	35	36	11.9507	.00005	.99488
24	40	35	10.5000	.00007	.99194	48	31	20	10.8409	.00005	.99493
44	33	18	10.2955	.00007	.99199	28	59	12	10.4167	.00005	.99498
42	29	28	9.2045	.00007	.99206	20	59	20	10.4167	.00005	.99503
19	53	27	8.9167	.00007	.99213	25	39	36	11.6667	.00005	.99507
19	53	27	8.9394	.00007	.99220	29	34	36	11.6667	.00005	.99512
14	44	11	9.1667	.00007	.99224	46	29	24	10.4167	.00004	.99516
27	59	13	9.8864	.00007	.99234	35	58	11	10.2273	.00004	.99519
40	49	10	8.5985	.00007	.99241	21	44	34	10.9091	.00004	.99525
43	29	27	9.2803	.00007	.99248	43	46	10	9.6667	.00004	.99529
36	53	12	8.6591	.00007	.99254	38	29	32	10.4167	.00004	.99534
43	29	29	9.2803	.00007	.99261	21	60	18	10.9091	.00004	.99538
31	33	25	10.5530	.00007	.99268	26	60	13	10.9848	.00004	.99542
19	52	28	9.0303	.00007	.99275	33	56	10	9.8182	.00004	.99546
21	59	19	9.8864	.00007	.99281	47	40	12	10.8485	.00004	.99550
19	55	25	9.0985	.00007	.99288	19	49	31	10.1894	.00004	.99555

(6)

TABLE D

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
22	42	35	11.4394	.00004	.99559	48	39	12	11.9318	.00003	.99720
23	46	33	13.7121	.00004	.99563	45	44	10	10.9091	.00003	.99723
19	58	22	10.3939	.00004	.99567	41	49	9	10.1894	.00003	.99726
24	39	36	11.9318	.00004	.99571	18	51	30	10.8409	.00003	.99728
49	34	16	11.6667	.00004	.99574	36	54	9	10.2273	.00003	.99731
49	33	17	11.6439	.00004	.99578	27	35	37	13.1591	.00003	.99733
35	30	34	11.1212	.00004	.99582	26	36	37	13.1667	.00003	.99736

TABLE D

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM	P(D)	U	V	W	X2	P(A)	CUM	P(D)
33	29	37	15.3469	.00001	.99931		52	30	17	16.5303	.00000	.99957	
23	63	13	14.9167	.00001	.99932		52	33	14	16.5985	.00000	.99958	
19	44	36	14.8485	.00001	.99933		48	42	9	14.5909	.00000	.99958	
41	26	32	13.8485	.00001	.99933		36	27	36	15.7500	.00000	.99959	
20	42	37	15.4394	.00001	.99934		19	43	37	16.1894	.00000	.99959	
51	29	19	15.3409	.00001	.99935		32	29	38	16.7863	.00000	.99959	
20	63	16	14.9621	.00001	.99935		25	63	11	15.6439	.00000	.99960	
47	26	46	14.0303	.00001	.99936		49	26	24	15.3030	.00000	.99960	
17	49	33	13.8258	.00001	.99936		29	31	39	17.4521	.00000	.99961	
47	43	9	13.6439	.00001	.99937		18	45	36	15.7500	.00000	.99961	
15	56	27	13.1667	.00001	.99938		29	61	9	14.7348	.00000	.99961	
15	55	28	15.1439	.00001	.99938		16	51	32	14.4167	.00000	.99962	
34	57	8	12.7803	.00001	.99939		20	41	38	16.9621	.00000	.99962	
18	46	35	14.5909	.00001	.99939		44	25	30	14.7833	.00000	.99962	
44	47	8	12.7803	.00001	.99940		45	25	29	14.7955	.00000	.99963	
37	27	35	14.7348	.00001	.99941		22	38	39	17.6212	.00000	.99963	
13	62	19	14.5909	.00001	.99941		32	59	8	14.0530	.00000	.99963	
15	54	29	13.2576	.00001	.99942		52	29	18	16.7803	.00000	.99964	
15	57	26	13.3258	.00001	.99942		16	60	23	14.6212	.00000	.99964	
53	38	11	15.0758	.00001	.99943		18	63	18	15.7500	.00000	.99964	
30	60	9	13.7727	.00001	.99943		46	45	8	14.0530	.00000	.99965	
51	30	38	16.2121	.00001	.99944		17	62	20	15.3030	.00000	.99965	
25	34	39	15.8939	.00001	.99944		52	34	13	16.8939	.00000	.99965	
23	35	39	16.9167	.00001	.99945		21	64	14	16.3636	.00000	.99966	
24	63	12	15.2045	.00001	.99945		43	25	31	14.9167	.00000	.99966	
40	26	33	14.3485	.00001	.99946		46	25	28	14.9621	.00000	.99966	
49	40	16	14.6667	.00001	.99946		50	39	10	15.8712	.00000	.99967	
27	33	39	15.9773	.00001	.99947		22	64	13	16.4394	.00000	.99967	
21	40	38	16.3636	.00001	.99947		51	37	11	16.4318	.00000	.99967	
16	53	30	13.5076	.00000	.99948		20	64	15	16.4394	.00000	.99968	
15	58	25	13.6212	.00000	.99948		38	26	35	15.8030	.00000	.99968	
17	61	21	14.3712	.00000	.99949		30	52	7	13.1591	.00000	.99968	
24	36	39	17.0455	.00000	.99949		40	52	7	13.1667	.00000	.99968	
48	26	25	14.5909	.00000	.99950		51	27	11	16.4318	.00000	.99969	
19	63	17	15.2803	.00000	.99950		17	47	35	15.6439	.00000	.99969	
51	36	12	15.8182	.00000	.99951		42	25	32	15.2045	.00000	.99969	
50	27	22	15.3258	.00000	.99951		38	54	7	13.2576	.00000	.99970	
33	58	8	13.3636	.00000	.99952		47	25	27	15.2803	.00000	.99970	
28	32	39	17.1667	.00000	.99952		30	30	39	17.8636	.00000	.99970	
51	24	20	15.8182	.00000	.99953		41	51	7	13.2803	.00000	.99970	
43	46	8	13.3636	.00000	.99953		50	26	23	16.1667	.00000	.99971	
52	32	18	15.4394	.00000	.99954		37	55	7	13.4621	.00000	.99971	
52	31	16	15.4167	.00000	.99954		16	50	33	15.0758	.00000	.99971	
15	52	31	13.9939	.00000	.99954		23	64	12	16.6667	.00000	.99972	
17	46	34	14.6667	.00000	.99955		42	56	7	13.5000	.00000	.99972	
23	37	39	17.2803	.00000	.99955		21	39	39	18.0682	.00000	.99972	
27	62	10	15.0000	.00000	.99956		52	28	19	17.1667	.00000	.99972	
34	28	37	15.0758	.00000	.99956		16	61	22	15.3258	.00000	.99973	
15	59	24	14.5303	.00000	.99957		19	64	16	16.6667	.00000	.99973	
53	26	34	15.0000	.00000	.99957		49	41	9	15.6439	.00000	.99973	

(9)

TABLE D

U	V	W	X2	P(A)	CUM	P(D)	U	V	W	X2	P(A)	CUM	P(D)
35	27	37	16.9167	.00000	.99973		34	58	7	14.7121	.00000	.99984	
33	28	38	17.4545	.00000	.99974		53	33	13	18.5530	.00000	.99984	
41	25	33	15.6439	.00000	.99974		50	40	9	15.8030	.00000	.99984	
52	35	12	17.3258	.00000	.99974		34	27	38	18.2348	.00000	.99984	
48	25	26	15.7500	.00000	.99974		45	47	7	14.7955	.00000	.99984	
26	63	10	16.2348	.00000	.99975		39	25	35	16.9773	.00000	.99984	
31	60	8	14.8485	.00000	.99975		15	60	24	15.8182	.00000	.99984	
47	44	8	14.8485	.00000	.99975		50	25	24	17.1439	.00000	.99985	
36	56	7	13.7027	.00000	.99975		29	30	41	19.6667	.00000	.99985	
25	34	40	18.9394	.00000	.99976		45	24	30	16.3636	.00000	.99985	
26	33	40	18.9621	.00000	.99976		15	52	32	15.8182	.00000	.99985	
43	49	7	13.8258	.00000	.99976		36	26	37	17.8636	.00000	.99985	
28	62	9	15.8030	.00000	.99976		32	28	39	18.9848	.00000	.99985	
15	56	28	14.7273	.00000	.99976		20	65	14	18.0530	.00000	.99985	
18	44	37	17.0455	.00000	.99977		21	65	13	18.0682	.00000	.99986	
24	35	40	19.0227	.00000	.99977		46	24	29	16.4394	.00000	.99986	
15	57	27	14.7955	.00000	.99977		44	24	31	16.4394	.00000	.99986	
19	42	38	17.6867	.00000	.99977		53	28	18	18.6667	.00000	.99986	
15	55	29	14.7955	.00000	.99978		16	48	35	16.8030	.00000	.99986	
37	26	36	16.7576	.00000	.99978		27	63	9	16.9773	.00000	.99986	
17	63	19	16.3712	.00000	.99978		25	64	10	17.5758	.00000	.99986	
27	32	40	19.0909	.00000	.99978		47	24	28	16.6667	.00000	.99987	
31	29	39	18.3712	.00000	.99978		18	43	38	18.4773	.00000	.99987	
15	58	26	15.0000	.00000	.99979		43	24	32	16.6667	.00000	.99987	
53	31	15	18.1894	.00000	.99979		17	64	18	17.5758	.00000	.99987	
35	57	7	14.1894	.00000	.99979		21	38	40	19.9091	.00000	.99987	
40	25	34	16.2348	.00000	.99979		19	65	15	18.1894	.00000	.99987	
24	64	11	17.0855	.00000	.99979		22	62	12	18.2348	.00000	.99987	
15	54	30	15.0000	.00000	.99980		33	59	7	15.3409	.00000	.99987	
16	49	34	15.8712	.00000	.99980		53	34	12	18.9394	.00000	.99988	
23	36	40	19.2121	.00000	.99980		16	63	20	17.1439	.00000	.99988	
49	25	25	16.3712	.00000	.99980		17	45	37	18.0076	.00000	.99988	
53	30	16	18.2121	.00000	.99980		15	61	23	16.4318	.00000	.99988	
17	46	36	16.7576	.00000	.99981		41	41	39	19.2803	.00000	.99988	
44	48	7	14.2576	.00000	.99981		46	45	7	15.4394	.00000	.99988	
18	64	17	17.0455	.00000	.99981		52	25	21	18.3485	.00000	.99988	
53	32	14	18.3030	.00000	.99981		48	24	27	17.0455	.00000	.99988	
51	26	22	17.1818	.00000	.99981		15	51	33	16.4318	.00000	.99988	
20	40	39	18.6212	.00000	.99981		42	24	33	17.0455	.00000	.99989	
52	27	20	17.6894	.00000	.99982		38	25	36	17.8712	.00000	.99989	
16	62	21	16.1667	.00000	.99982		49	42	8	16.7576	.00000	.99989	
15	59	25	15.3409	.00000	.99982		30	29	40	20.1136	.00000	.99989	
28	31	40	19.3258	.00000	.99982		29	62	8	16.7576	.00000	.99989	
51	38	10	17.1818	.00000	.99982		51	25	23	18.0682	.00000	.99989	
53	29	17	18.3712	.00000	.99983		53	27	19	19.0985	.00000	.99989	
15	53	31	15.3409	.00000	.99983		18	65	16	18.4773	.00000	.99989	
48	43	8	15.7500	.00000	.99983		52	37	10	18.5985	.00000	.99989	
52	37	11	17.8939	.00000	.99983		23	65	11	18.5530	.00000	.99990	
22	37	40	19.5076	.00000	.99983		25	33	41	20.0985	.00000	.99990	
30	61	8	15.7500	.00000	.99983		24	34	41	21.1364	.00000	.99990	

(10)

TABLE D

TABLE D

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
25	66	8	21.8485	.00000	.99998	51	42	6	21.5455	.00000	.99999
17	41	41	24.3712	.00000	.99998	23	32	44	28.3030	.00000	.99999
45	49	5	18.1682	.00000	.99998	24	31	44	28.2955	.00000	.99999
21	35	43	26.2500	.00000	.99998	34	24	41	25.5303	.00000	.99999
27	29	43	26.2500	.00000	.99998	17	40	42	26.3030	.00000	.99999
41	22	36	21.8485	.00000	.99998	39	22	38	23.7273	.00000	.99999
35	59	5	18.3712	.00000	.99998	26	66	7	22.7121	.00000	.99999
23	67	9	22.7348	.00000	.99998	32	25	42	26.4167	.00000	.99999
15	45	39	22.9773	.00000	.99998	25	30	44	28.3939	.00000	.99999
35	25	41	24.6136	.00000	.99998	22	33	44	28.4167	.00000	.99999
52	40	7	21.5303	.00000	.99998	43	21	35	22.7348	.00000	.99999
33	63	6	20.1136	.00000	.99998	48	46	5	20.0455	.00000	.99999
35	24	40	23.9394	.00000	.99998	36	23	40	25.0227	.00000	.99999
27	65	7	21.3409	.00000	.99998	51	21	27	22.9773	.00000	.99999
13	68	12	23.5758	.00000	.99998	22	68	9	24.4394	.00000	.99999
13	39	42	25.5682	.00000	.99998	26	29	44	28.5985	.00000	.99999
13	68	13	23.5909	.00000	.99998	21	34	44	28.6364	.00000	.99999
45	48	5	18.6212	.00000	.99998	14	67	18	23.6894	.00000	.99999
52	22	25	22.3485	.00000	.99998	54	22	23	24.4091	.00000	.99999
50	43	6	20.4167	.00000	.99998	18	38	43	27.6818	.00000	.99999
20	36	43	26.6212	.00000	.99998	32	62	5	20.5303	.00000	.99999
31	26	42	23.6667	.00000	.99998	30	26	43	27.6818	.00000	.99999
20	60	11	23.7121	.00000	.99998	42	21	36	23.3864	.00000	.99999
29	28	43	25.6212	.00000	.99998	15	68	16	24.5455	.00000	.99999
51	23	22	23.3864	.00000	.99998	52	21	26	23.6894	.00000	.99999
15	67	17	22.9773	.00000	.99998	28	65	6	22.4167	.00000	.99999
34	66	5	18.9848	.00000	.99999	27	28	44	28.9091	.00000	.99999
37	23	39	23.6439	.00000	.99999	38	22	39	24.8939	.00000	.99999
17	68	14	23.7576	.00000	.99999	49	45	5	20.9167	.00000	.99999
14	66	19	22.3485	.00000	.99999	20	35	44	28.9621	.00000	.99999
43	22	37	22.7121	.00000	.99999	18	69	12	25.5682	.00000	.99999
47	21	31	21.6439	.00000	.99999	52	41	6	22.7803	.00000	.99999
45	21	32	21.6894	.00000	.99999	41	54	4	18.9394	.00000	.99999
49	21	30	21.7500	.00000	.99999	40	55	4	18.9621	.00000	.99999
43	21	33	21.8864	.00000	.99999	19	69	11	25.6439	.00000	.99999
47	47	5	19.2803	.00000	.99999	42	53	4	19.0227	.00000	.99999
49	21	29	22.0076	.00000	.99999	17	69	13	25.6439	.00000	.99999
21	68	10	24.0000	.00000	.99999	39	56	4	19.0909	.00000	.99999
53	22	24	23.3030	.00000	.99999	41	21	37	24.1894	.00000	.99999
19	37	43	27.9985	.00000	.99999	16	41	42	27.1439	.00000	.99999
23	27	43	27.0985	.00000	.99999	15	43	41	26.2500	.00000	.99999
15	42	41	25.2576	.00000	.99999	43	52	4	19.2121	.00000	.99999
43	21	34	22.2348	.00000	.99999	33	24	42	27.2727	.00000	.99999
29	64	6	21.2121	.00000	.99999	38	57	4	19.3258	.00000	.99999
15	68	15	24.0758	.00000	.99999	35	23	41	26.5530	.00000	.99999
50	21	28	22.4167	.00000	.99999	31	63	5	21.4621	.00000	.99999
33	61	5	19.7045	.00000	.99999	53	21	25	24.5530	.00000	.99999
21	67	8	23.3864	.00000	.99999	25	67	7	24.1894	.00000	.99999
15	44	40	24.5455	.00000	.99999	20	69	10	25.8712	.00000	.99999
53	39	7	22.9167	.00000	.99999	28	27	44	29.3258	.00000	.99999

(13)

TABLE D

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
23	68	8	25.0303	.00000	.99999	36	25	44	30.4773	.00000	.99999
44	51	4	19.5076	.00000	.99999	18	70	11	27.6818	.00000	.99999
19	35	44	29.3939	.00000	.99999	17	70	12	27.6667	.00000	.99999
31	25	43	28.3712	.00000	.99999	22	69	8	26.7803	.00000	.99999
16	69	14	25.8712	.00000	.99999	42	20	37	25.7727	.00000	.99999
17	39	43	28.3712	.00000	.99999	14	69	14	26.7803	.00000	.99999
37	58	4	19.6667	.00000	.99999	17	38	44	30.5758	.00000	.99999
48	20	31	23.5909	.00000	.99999	29	65	5	23.6439	.00000	.99999
47	20	32	23.5758	.00000	.99999	53	20	26	25.9394	.00000	.99999
50	44	5	21.8939	.00000	.99999	27	27	45	31.7045	.00000	.99999
46	20	33	23.7121	.00000	.99999	26	67	6	25.1439	.00000	.99999
19	20	30	23.7576	.00000	.99999	48	47	4	21.7500	.00000	.99999
14	68	17	25.1667	.00000	.99999	19	35	45	31.8258	.00000	.99999
37	22	40	26.2121	.00000	.99999	16	70	13	27.8030	.00000	.99999
45	52	40	19.9091	.00000	.99999	19	70	10	27.8485	.00000	.99999
40	21	38	25.1439	.00000	.99999	38	21	40	27.5076	.00000	.99999
45	20	34	24.0000	.00000	.99999	52	42	5	24.1667	.00000	.99999
50	20	29	24.0758	.00000	.99999	33	62	4	22.0909	.00000	.99999
36	59	4	20.1136	.00000	.99999	41	23	38	26.6667	.00000	.99999
27	66	6	23.7273	.00000	.99999	33	23	43	30.0682	.00000	.99999
23	31	45	30.9167	.00000	.99999	28	26	45	32.1667	.00000	.99999
53	40	6	24.1212	.00000	.99999	54	20	25	26.8636	.00000	.99999
21	69	9	26.2500	.00000	.99999	15	70	14	28.9091	.00000	.99999
54	21	24	25.5682	.00000	.99999	35	22	42	29.3030	.00000	.99999
24	30	45	30.9545	.00000	.99999	48	19	32	25.5682	.00000	.99999
22	32	45	30.9848	.00000	.99999	49	45	4	22.5758	.00000	.99999
29	26	44	29.8485	.00000	.99999	20	70	9	28.1667	.00000	.99999
15	69	15	26.2500	.00000	.99999	49	19	31	25.6439	.00000	.99999
46	49	4	20.4167	.00000	.99999	15	41	43	30.0682	.00000	.99999
44	40	35	24.4394	.00000	.99999	47	19	33	25.6439	.00000	.99999
30	44	5	22.5000	.00000	.99999	18	36	45	32.3182	.00000	.99999
51	30	28	24.5455	.00000	.99999	31	24	44	31.2121	.00000	.99999
18	37	44	29.9318	.00000	.99999	50	19	30	25.6712	.00000	.99999
25	29	45	31.0985	.00000	.99999	46	19	34	25.8712	.00000	.99999
35	60	4	10.6667	.00000	.99999	23	30	45	33.6667	.00000	.99999
21	33	45	31.1591	.00000	.99999	16	39	44	31.3258	.00000	.99999
34	23	42	28.2348	.00000	.99999	32	63	4	22.9621	.00000	.99999
15	43	5	22.9773	.00000	.99999	22	31	45	33.6894	.00000	.99999
51	42	42	28.0909	.00000	.99999	28	66	5	24.8939	.00000	.99999
32	24	43	29.1667	.00000	.99999	51	19	29	26.2500	.00000	.99999
39	21	39	26.2500	.00000	.99999	24	29	45	33.7500	.00000	.99999
43	20	36	25.0303	.00000	.99999	23	69	7	27.4621	.00000	.99999
52	20	27	25.1667	.00000	.99999	45	19	35	26.2500	.00000	.99999
16	40	43	29.1667	.00000	.99999	37	21	41	28.9167	.00000	.99999
26	28	45	31.3485	.00000	.99999	21	32	46	33.8182	.00000	.99999
47	48	4	21.3030	.00000	.99999	40	20	39	27.7121	.00000	.99999
20	34	45	31.4394	.00000	.99999	53	41	5	25.4621	.00000	.99999
36	22	41	27.6818	.00000	.99999	25	68	6	26.6667	.00000	.99999
24	68	7	25.7727	.00000	.99999	29	25	45	32.7348	.00000	.99999
34	61	4	21.3258	.00000	.99999	25	28	46	33.9394	.00000	.99999

(14)

TABLE D

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
56	45	4	23.5076	.00000	.99999	35	61	3	23.0985	.00000	.99999
14	70	15	28.5303	.00000	.99999	14	71	14	30.4167	.00000	.99999
52	19	28	26.7803	.00000	.99999	41	19	39	29.2803	.00000	.99999
20	33	46	34.0530	.00000	.99999	33	22	44	33.0000	.00000	.99999
44	19	36	25.7803	.00000	.99999	50	18	31	27.8030	.00000	.99999
21	70	8	28.6364	.00000	.99999	23	20	47	36.5303	.00000	.99999
41	55										

TABLE D

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
18	32	49	43.2273	.00000	.99999	42	56	1	25.7727	.00000	.99999
47	16	36	32.6667	.00000	.99999	51	15	33	34.4318	.00000	.99999
53	16	30	32.8485	.00000	.99999	50	15	34	34.4167	.00000	.99999
33	20	46	39.2727	.00000	.99999	41	57	1	25.8258	.00000	.99999
23	25	49	43.2803	.00000	.99999	43	55	1	25.8258	.00000	.99999
50	47	2	27.1439	.00000	.99999	21	73	5	36.6136	.00000	.99999
31	21	47	40.5538	.00000	.99999	28	22	49	44.8939	.00000	.99999
23	68	3	30.2576	.00000	.99999	49	15	35	34.5530	.00000	.99999
41	17	41	34.9167	.00000	.99999	52	15	32	34.5985	.00000	.99999
33	64	2	27.2727	.00000	.99999	53	44	2	30.3030	.00000	.99999
15	74	10	36.8182	.00000	.99999	40	58	1	25.9848	.00000	.99999
45	16	37	33.1667	.00000	.99999	42	16	41	36.6818	.00000	.99999
35	19	45	38.3712	.00000	.99999	44	54	1	25.9848	.00000	.99999
13	36	48	42.0000	.00000	.99999	26	70	3	33.2576	.00000	.99999
54	16	29	33.4091	.00000	.99999	48	15	36	34.8409	.00000	.99999
15	74	9	35.8939	.00000	.99999	53	15	31	34.9167	.00000	.99999
14	74	11	35.8939	.00000	.99999	39	59	1	26.2500	.00000	.99999
17	35	49	43.6439	.00000	.99999	17	32	50	46.6667	.00000	.99999
29	22	48	42.2121	.00000	.99999	45	53	1	26.2500	.00000	.99999
22	72	5	34.6212	.00000	.99999	30	67	2	30.4773	.00000	.99999
45	16	38	33.8182	.00000	.99999	25	24	50	46.6667	.00000	.99999
25	24	49	43.7121	.00000	.99999	19	74	6	38.0303	.00000	.99999
20	73	6	35.8712	.00000	.99999	15	75	9	39.3409	.00000	.99999
51	46	2	28.9009	.00000	.99999	14	75	10	39.3258	.00000	.99999
17	74	8	37.1212	.00000	.99999	23	72	4	35.5758	.00000	.99999
32	65	2	28.2348	.00000	.99999	47	15	37	35.2803	.00000	.99999
37	18	44	37.8485	.00000	.99999	54	15	30	35.3864	.00000	.99999
40	17	42	36.2348	.00000	.99999	38	17	44	39.3258	.00000	.99999
44	16	39	34.6212	.00000	.99999	38	60	1	26.6212	.00000	.99999
24	71	4	33.7500	.00000	.99999	46	52	1	26.6212	.00000	.99999
15	34	49	44.1667	.00000	.99999	33	19	47	42.6136	.00000	.99999
27	69	3	31.7045	.00000	.99999	31	20	48	43.9394	.00000	.99999
22	28	50	45.8182	.00000	.99999	16	75	8	39.5076	.00000	.99999
32	20	47	44.2500	.00000	.99999	41	16	42	37.9394	.00000	.99999
20	29	50	41.5303	.00000	.99999	46	15	38	35.8712	.00000	.99999
22	29	50	45.8712	.00000	.99999	37	61	1	27.0985	.00000	.99999
22	27	50	45.8712	.00000	.99999	47	51	1	27.0985	.00000	.99999
52	45	2	29.1439	.00000	.99999	35	18	46	41.6667	.00000	.99999
18	74	7	37.5000	.00000	.99999	16	33	50	47.1439	.00000	.99999
31	19	46	40.4167	.00000	.99999	26	23	50	47.1439	.00000	.99999
19	30	50	43.0227	.00000	.99999	29	21	49	45.5439	.00000	.99999
32	21	46	43.0227	.00000	.99999	45	15	39	36.6136	.00000	.99999
23	26	50	46.0303	.00000	.99999	36	62	1	27.6818	.00000	.99999
43	16	40	35.5758	.00000	.99999	29	68	2	31.7576	.00000	.99999
31	66	2	29.3030	.00000	.99999	48	50	1	27.6818	.00000	.99999
39	17	43	37.7045	.00000	.99999	17	75	7	39.8258	.00000	.99999
35	18	45	39.6818	.00000	.99999	20	28	51	49.1667	.00000	.99999
18	31	50	46.2955	.00000	.99999	21	27	51	49.1591	.00000	.99999
21	25	50	46.2955	.00000	.99999	25	71	3	34.9167	.00000	.99999
15	35	49	44.7955	.00000	.99999	37	17	45	41.0985	.00000	.99999

(17)

TABLE D

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
22	26	51	49.2576	.00000	.99999	32	66	1	31.0758	.00000	.99999
19	29	51	49.2803	.00000	.99999	15	33	51	50.7955	.00000	.99999
40	16	43	39.3485	.00000	.99999	46	14	39	38.7121	.00000	.99999
35	63	1	28.3712	.00000	.99999	20	27	52	52.5985	.00000	.99999
20	74	5	38.7121	.00000	.99999	41	15	43	41.0985	.00000	.99999
49	49	1	28.3712	.00000	.99999	29	20	50	49.2121	.00000	.99999
44	15	40	37.5076	.00000	.99999	21	26	52	52.6364	.00000	.99999
15	34	50	47.7273	.00000	.99999	35	17	47	45.0985	.00000	.99999
27	22	50	47.7273	.00000	.99999	19	28	52	52.6667	.00000	.99999
23	25	51	49.4621	.00000	.99999	22	25	52	52.7803	.00000	.99999
18	30	51	49.5000	.00000	.99999	18	29	52	52.8409	.00000	.99999
22	73	4	37.5076	.00000	.99999	45	14	40	39.5455	.00000	.99999
32	19	48	44.9621	.00000	.99999	17	76	6	42.6667	.00000	.99999
34	18	47	43.8030	.00000	.99999	23	73	3	38.5530	.00000	.99999
30	20	49	46.5000	.00000	.99999	53	45	1	32.1894	.00000	.99999
18	75	6	40.2955	.00000	.99999	23	24	52	53.0303	.00000	.99999
28	69	2	33.1439	.00000	.99999	31	67	1	32.1894	.00000	.99999
34	64	1	29.1667	.00000	.99999	17	30	52	53.1212	.00000	.99999
50	48	1	29.1667	.00000	.99999	27	21	51	51.3409	.00000	.99999
24	24	51	49.7727	.00000	.99999	37	16	46	44.4848	.00000	.99999
17	31	51	49.8258	.00000	.99999	26	71	2	36.2348	.00000	.99999
43	15	41	38.5530	.00000	.99999	44	15	44	42.5985	.00000	.99999
39	16	44	40.9091	.00000	.99999	32	18	49	48.5303	.00000	.99999
36	17	46	43.0227	.00000	.99999	24	23	52	53.3864	.00000	.99999
51	14	34	36.8182	.00000	.99999	30	19	50	50.1136	.00000	.99999
52	14	33	36.8939	.00000	.99999	16	31	52	53.5076	.00000	.99999
50	14	35	36.8939	.00000	.99999	34	17	48	47.3258	.00000	.99999
28	21	50	48.4167	.00000	.99999	20	75	4	41.6894	.00000	.99999
14	76	9	41.8939	.00000	.99999	14	76	8	44.5985	.00000	.99999
53	14	32	37.1212	.00000	.99999	30	68	1	33.4091	.00000	.99999
44	14	36	37.1212	.00000	.99999	43	14	42	41.6667	.00000	.99999
24	72	3	36.6818	.00000	.99999	52	13	34	39.3258	.00000	.99999
25	23	51	50.1894	.00000	.99999	51	13	35	39.3409	.00000	.99999
51	47	1	30.0682	.00000	.99999	28	20	51	52.0758	.00000	.99999
33	65	1	30.0682	.00000	.99999	18	76	5	43.2273	.00000	.99999
15	76	0	42.0000	.00000	.99999	53	13	33	39.4621	.00000	.99999
16	32	51	50.2576	.00000	.99999	39	25	52	54.2500	.00000	.99999
54	14	31	37.5000	.00000	.99999	25	22	52	53.8485	.00000	.99999
42	15	42	39.7500	.00000	.99999	50	13	35	39.5076	.00000	.99999
48	14	37	37.5000	.00000	.99999	56	13	37	46.5000	.00000	.99999
47	14	38	38.0303	.00000	.99999	54	13	32	39.7500	.00000	.99999
27	70	2	34.6364	.00000	.99999	15	77	7	44.7955	.00000	.99999
16	76	1	42.2576	.00000	.99999	31	19	49	47.4621	.00000	.99999
31	19	49	47.4621	.00000	.99999	15	32	52	54.0000	.00000	.99999
38	16	45	42.6212	.00000	.99999	49	13	37	39.8258	.00000	.99999
33	18	48	46.9091	.00000	.99999	22	74	3	40.5303	.00000	.99999
21	74	4	39.5455	.00000	.99999	42	57	0	28.2955	.00000	.99999
19	75	5	40.9167	.00000	.99999	25	72	2	37.9394	.00000	.99999
52	46	1	31.0758	.00000	.99999	43	56	0	28.3030	.00000	.99999
26	22	51	50.7121	.00000	.99999	41	58	0	28.3939	.00000	.99999

(18)

TABLE D

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
44	55	0	28.4167	.00000	.99999	25	21	53	57.6439	.00000	.99999
43	13	38	40.2955	.00000	.99999	28	19	52	55.8712	.00000	.99999
40	59	0	28.5985	.00000	.99999	52	12	35	41.8939	.00000	.99999
42	14	43	42.9545	.00000	.99999	34	65	0	32.0530	.00000	.99999
45	54	0	28.6364	.00000	.99999	53	12	34	41.9394	.00000	.99999
20	26	53	56.1667	.00000	.99999	27	71	1	37.7045	.00000	.99999
19	27	53	55.18								



TABLE D

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
23	26	57	71.8636	.00000	.99999	23	76	0	46.3030	.00000	.99999
35	13	51	60.1894	.00000	.99999	47	9	43	53.8258	.00000	.99999
45	1	43	51.4394	.00000	.99999	38	11	50	61.1439	.00000	.99999
15	27	57	72.0682	.00000	.99999	35	12	52	64.3030	.00000	.99999
21	77	1	49.1591	.00000	.99999	25	17	57	74.1894	.00000	.99999
21	21	47	72.0682	.00000	.99999	19	79	1	53.8258	.00000	.99999
41	11	47	55.0985	.00000	.99999	22	19	58	76.7803	.00000	.99999
23	18	56	69.8485	.00000	.99999	46	9	44	54.9621	.00000	.99999
25	74	6	44.3939	.00000	.99999	41	10	48	58.9394	.00000	.99999
15	80	3	54.6212	.00000	.99999	30	14	55	70.2273	.00000	.99999
53	54	5	55.9318	.00000	.99999	28	15	56	72.4167	.00000	.99999
13	79	2	52.8409	.00000	.99999	32	13	54	68.4167	.00000	.99999
45	10	44	52.6364	.00000	.99999	45	9	45	56.2500	.00000	.99999
32	14	53	64.1667	.00000	.99999	37	11	51	63.4621	.00000	.99999
22	20	57	72.4394	.00000	.99999	23	18	58	77.3030	.00000	.99999
28	16	55	69.0758	.00000	.99999	26	16	57	74.9848	.00000	.99999
37	12	50	59.3939	.00000	.99999	22	77	0	50.4167	.00000	.99999
14	81	4	56.7803	.00000	.99999	34	12	53	66.9848	.00000	.99999
47	11	48	56.9621	.00000	.99999	16	81	2	58.0530	.00000	.99999
53	13	52	62.7803	.00000	.99999	17	23	59	80.0076	.00000	.99999
54	9	36	50.1136	.00000	.99999	54	8	37	53.0455	.00000	.99999
53	9	37	50.1894	.00000	.99999	40	10	49	60.8939	.00000	.99999
43	10	40	53.9848	.00000	.99999	18	22	59	80.9455	.00000	.99999
25	17	56	70.5985	.00000	.99999	16	24	59	80.0758	.00000	.99999
52	9	38	50.4167	.00000	.99999	53	8	38	53.2121	.00000	.99999
23	19	57	72.9167	.00000	.99999	14	82	3	60.1667	.00000	.99999
51	9	39	50.7955	.00000	.99999	52	8	39	53.5303	.00000	.99999
24	75	0	46.2955	.00000	.99999	44	9	46	57.6894	.00000	.99999
23	78	1	51.4394	.00000	.99999	19	21	59	80.1894	.00000	.99999
50	9	40	51.3258	.00000	.99999	15	25	59	80.2510	.00000	.99999
55	12	51	61.7727	.00000	.99999	51	8	40	54.0000	.00000	.99999
13	23	58	73.7500	.00000	.99999	24	17	58	77.9316	.00000	.99999
17	24	58	75.7576	.00000	.99999	20	20	59	80.4394	.00000	.99999
45	1	46	55.4848	.00000	.99999	50	8	41	54.6212	.00000	.99999
39	11	49	58.9773	.00000	.99999	18	80	1	56.3182	.00000	.99999
49	9	41	52.0076	.00000	.99999	29	14	56	73.4848	.00000	.99999
19	22	58	75.8485	.00000	.99999	36	11	52	65.9318	.00000	.99999
15	25	58	75.8712	.00000	.99999	31	13	55	71.4621	.00000	.99999
29	15	35	59.0985	.00000	.99999	43	9	47	59.2803	.00000	.99999
31	14	54	67.1212	.00000	.99999	39	10	50	63.0000	.00000	.99999
24	18	57	73.5000	.00000	.99999	29	15	57	75.8864	.00000	.99999
20	21	58	76.0530	.00000	.99999	49	8	42	55.3939	.00000	.99999
15	26	58	76.0969	.00000	.99999	21	19	59	80.7955	.00000	.99999
17	8	2	55.3939	.00000	.99999	33	12	54	69.8167	.00000	.99999
15	84	3	57.3449	.00000	.99999	21	78	3	52.6364	.00000	.99999
27	16	50	71.4545	.00000	.99999	48	8	43	56.3182	.00000	.99999
55	13	33	55.5227	.00000	.99999	25	16	58	78.6667	.00000	.99999
43	9	42	52.8449	.00000	.99999	42	5	48	61.8227	.00000	.99999
42	10	47	57.1364	.00000	.99999	22	18	59	81.2576	.00000	.99999
21	21	58	75.5656	.00000	.99999	47	8	44	57.3939	.00000	.99999

(21)

TABLE D

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
38	10	51	65.2576	.00000	.99999	38	9	52	69.5076	.00000	.99999
15	82	2	60.8182	.00000	.99999	23	16	60	86.4848	.00000	.99999
35	11	53	68.5530	.00000	.99999	28	13	58	81.5076	.00000	.99999
30	13	56	74.6591	.00000	.99999	47	7	45	61.1439	.00000	.99999
28	14	57	76.8939	.00000	.99999	19	61	61	89.2603	.00000	.99999
17	22	60	84.3939	.00000	.99999	30	12	57	79.2273	.00000	.99999
16	23	60	84.4167	.00000	.99999	26	14	59	84.1667	.00000	.99999
46	8	45	58.6212	.00000	.99999	32	11	56	77.3258	.00000	.99999
17	81	1	58.9167	.00000	.99999	20	18	61	89.6212	.00000	.99999
23	17	59	81.8258	.00000	.99999	46	7	46	62.4167	.00000	.99999
41	9	49	62.9167	.00000	.99999	41	9	56	67.0303	.00000	.99999
18	21	60	84.4773	.00000	.99999	18	81	0	59.9318	.00000	.99999
32	12	55	72.8030	.00000	.99999	15	83	1	54.4318	.00000	.99999
15	24	60	84.5455	.00000	.99999	24	15	60	87.2045	.00000	.99999
26	15	58	79.5076	.00000	.99999	37	9	53	72.5076	.00000	.99999
19	20	60	84.6667	.00000	.99999	34	10	55	75.8030	.00000	.99999
20	79	0	54.9621	.00000	.99999	21	17	61	90.0682	.00000	.99999
37	10	52	67.5667	.00000	.99999	45	7	47	63.8864	.00000	.99999
45	8	46	60.4000	.00000	.99999	54	6	39	59.3182	.00000	.99999
34	11	54	71.3258	.00000	.99999	40	8	51	69.1667	.00000	.99999
20	19	60	84.9621	.00000	.99999	53	6	40	59.6667	.00000	.99999
54	7	38	56.1136	.00000	.99999	29	12	58	82.6667	.00000	.99999
40	9	50	64.9621	.00000	.99999	27	13	59	85.1591	.00000	.99999
53	7	39	56.3712	.00000	.99999	52	6	41	60.1667	.00000	.99999
24	16	59	82.5000	.00000	.99999	31	11	57	80.5303	.00000	.99999
52	7	40	56.7803	.00000	.99999	44	7	48	65.5076	.00000	.99999
48	8	47	61.5303	.00000	.99999	22	16	61	90.6212	.00000	.99999
21	18	60	85.3636	.00000	.99999	16	21	62	93.5076	.00000	.99999
29	13	57	78.0076	.00000	.99999	15	22	62	93.5455	.00000	.99999
51	7	41	57.3409	.00000	.99999	51	5	42	60.8167	.00000	.99999
31	12	56	75.9394	.00000	.99999	17	20	62	93.5758	.00000	.99999
27	14	58	80.4545	.00000	.99999	25	14	60	88.9333	.00000	.99999
14	83	2	63.6894	.00000	.99999	36	9	54	74.6591	.00000	.99999
36	11	53	70.2273	.00000	.99999	18	19	62	93.7500	.00000	.99999
59	7	42	58.3530	.00000	.99999	50	6	43	61.6212	.00000	.99999
39	9	51	67.1591	.00000	.99999	33	13	56	78.8182	.00000	.99999
16	82	1	61.6212	.00000	.99999	39	8	52	71.4545	.00000	.99999
43	8	48	63.2121	.00000	.99999	17	82	0	62.5758	.00000	.99999
19	80	0	57.3939	.00000	.99999	43	7	49	67.2803	.00000	.99999
33	11	55	74.2500	.00000	.99999	19	18	62	94.1303	.00000	.99999
22	17	66	85.8712	.00000	.99999	49	6	44	62.5758	.00000	.99999
25	15	59	83.2903	.00000	.99999	23	15	61	91.2803	.00000	.99999
49	7	43	58.9167	.00000	.99999	14	84	1	67.3449	.00000	.99999
16	22	61	88.8939	.00000	.99999	26	12	59	86.2576	.00000	.99999
17	21	61	88.9167	.00000	.99999	48	6	45	63.6818	.00000	.99999
48	7	44	59.9318	.00000	.99999	2	17	62	94.4167	.00000	.99999
15	23	61	88.9773	.00000	.99999	31	11	58	83.9318	.00000	.99999
18	20	61	89.0455	.00000	.99999	35	9	55	77.4621	.00000	.99999
42	8	49	65.9955	.00000	.99999	26	13	61	88.9621	.00000	.99999
35	10	54	72.9394	.00000	.99999	42	7	50	69.2045	.00000	.99999

(22)

TABLE D

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
33	8	53	73.8939	.00000	.99999	18	17	64	103.5682	.00000	.99999
47	6	46	54.9394	.00000	.99999	22	14	63	100.5303	.00000	.99999
32	1	57	81.9848	.00000	.99999	41	6	52	75.6667	.00000	.99999
24	14	61	92.4455	.00000	.99999	27	11	61	94.9773	.00000	.99999
21	16	62	94.9791	.00000	.99999	34	8	57	85.1667	.00000	.99999
41	7	51	71.2803	.00000	.99999	46	5	48	70.4167	.00000	.99999
45	6	47	55.3485	.00000	.99999	29	10	60	92.3939	.00000	.99999
1											

TABLE D  
CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
43	3	56	92.2348	.00000	.99999	19	10	70	136.9394	.00000	.99999
17	13	69	130.4076	.00000	.99999	35	3	61	107.4621	.00000	.99999
23	8	66	1190.3939	.00000	.99999	45	1	53	90.0682	.00000	.99999
43	2	52	85.3636	.00000	.99999	16	12	71	141.1667	.00000	.99999
23	9	67	122.9167	.00000	.99999	39	2	58	100.0909	.00000	.99999
27	7	65	115.2500	.00000	.99999	24	7	68	129.7500	.00000	.99999
32	5	62	107.3258	.00000	.99999	22	8	69	133.5303	.00000	.99999
39	3	57	94.9773	.00000	.99999	26	6	67	126.3485	.00000	.99999
18	12	69	151.5000	.00000	.99999	31	4	64	116.6667	.00000	.99999
33	4	65	102.1212	.00000	.99999	44	1	54	92.2348	.00000	.99999
21	14	68	126.8182	.00000	.99999	17	11	71	141.6439	.00000	.99999
53	1	44	77.3864	.00000	.99999	20	9	70	137.6894	.00000	.99999
29	6	64	113.4848	.00000	.99999	34	3	62	110.9621	.00000	.99999
44	2	53	87.4394	.00000	.99999	28	5	66	123.3258	.00000	.99999
53	1	45	78.1894	.00000	.99999	38	2	59	103.0758	.00000	.99999
52	1	46	79.1439	.00000	.99999	54	0	45	81.4091	.00000	.99999
13	11	69	131.0985	.00000	.99999	43	1	55	94.5530	.00000	.99999
43	2	54	83.6667	.00000	.99999	53	0	46	82.3030	.00000	.99999
33	3	58	97.8712	.00000	.99999	18	10	71	142.2273	.00000	.99999
15	14	70	135.0000	.00000	.99999	52	0	47	83.3485	.00000	.99999
51	1	47	80.2560	.00000	.99999	23	7	69	134.5530	.00000	.99999
23	8	67	123.9545	.00000	.99999	30	4	65	120.6818	.00000	.99999
31	5	63	111.0985	.00000	.99999	25	6	68	130.9394	.00000	.99999
25	7	66	120.5985	.00000	.99999	37	2	60	106.2121	.00000	.99999
34	4	61	103.5303	.00000	.99999	21	8	70	138.5455	.00000	.99999
22	9	68	127.6894	.00000	.99999	33	3	63	114.6136	.00000	.99999
16	13	70	135.3258	.00000	.99999	42	1	56	97.0227	.00000	.99999
50	1	48	81.5076	.00000	.99999	51	0	48	84.5455	.00000	.99999
29	6	65	117.6212	.00000	.99999	15	12	72	146.7273	.00000	.99999
42	2	55	92.0455	.00000	.99999	27	5	67	127.7045	.00000	.99999
49	1	49	82.9167	.00000	.99999	50	0	49	85.8939	.00000	.99999
37	3	59	100.9167	.00000	.99999	19	9	71	142.9167	.00000	.99999
20	10	69	131.8030	.00000	.99999	16	11	72	147.1439	.00000	.99999
17	12	70	135.7576	.00000	.99999	41	1	57	99.6439	.00000	.99999
33	4	62	109.909	.00000	.99999	36	2	61	109.5000	.00000	.99999
30	5	64	113.0227	.00000	.99999	49	0	50	87.3939	.00000	.99999
48	1	50	84.4773	.00000	.99999	29	4	66	124.8485	.00000	.99999
41	2	56	94.5758	.00000	.99999	32	3	64	118.4167	.00000	.99999
25	7	67	125.0985	.00000	.99999	48	0	51	89.0455	.00000	.99999
23	8	68	128.6667	.00000	.99999	22	7	70	139.5076	.00000	.99999
13	11	70	136.2955	.00000	.99999	24	6	69	135.6818	.00000	.99999
47	1	51	86.1894	.00000	.99999	17	10	72	147.6667	.00000	.99999
36	3	60	104.1136	.00000	.99999	40	1	58	102.4167	.00000	.99999
27	6	66	121.9091	.00000	.99999	20	8	71	143.7121	.00000	.99999
21	9	69	132.6136	.00000	.99999	26	5	68	132.2348	.00000	.99999
40	2	57	97.2576	.00000	.99999	47	0	52	90.8485	.00000	.99999
45	1	52	88.5530	.00000	.99999	35	2	62	112.9394	.00000	.99999
32	4	63	112.8030	.00000	.99999	31	3	65	122.3712	.00000	.99999
15	13	71	140.7955	.00000	.99999	46	0	53	92.8030	.00000	.99999
23	5	65	119.0985	.00000	.99999	18	9	72	148.2955	.00000	.99999

(25)

TABLE D

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
39	1	59	105.3409	.00000	.99999	29	2	68	136.7576	.00000	.99999
28	4	67	129.1667	.00000	.99999	26	3	70	144.4167	.00000	.99999
15	11	73	152.7955	.00000	.99999	16	8	75	165.6939	.00000	.99999
34	2	63	116.5303	.00000	.99999	37	0	62	117.2121	.00000	.99999
23	7	70	140.5758	.00000	.99999	32	1	66	130.6530	.00000	.99999
45	0	54	94.9691	.00000	.99999	21	5	73	157.1591	.00000	.99999
21	7	71	144.6136	.00000	.99999	19	5	74	161.6667	.00000	.99999
25	5	69	136.9167	.00000	.99999	23	4	72	153.0303	.00000	.99999
35	1	60	108.4167	.00000	.99999	28	2	69	141.2576	.00000	.99999
16	10	73	153.2576	.00000	.99999	36	0	63	120.6818	.00000	.99999
19	8	72	149.0303	.00000	.99999	17	7	75	166.5530	.00000	.99999
30	3	66	126.4773	.00000	.99999	25	3	71	149.2803	.00000	.99999
44	0	55	97.1667	.00000	.99999	31	1	67	134.1894	.00000	.99999
40	4	68	133.6364	.00000	.99999	15	8	76	171.8182	.00000	.99999
33	2	64	128.2727	.00000	.99999	35	0	64	124.3030	.00000	.99999
37	1	61	111.6439	.00000	.99999	20	5	74	162.5985	.00000	.99999
17	9	73	153.8258	.00000	.99999	22	4	73	158.2576	.00000	.99999
43	0	56	99.5758	.00000	.99999	27	2	70	145.9091	.00000	.99999
22	6	71	145.6212	.00000	.99999	18	6	75	167.3182	.00000	.99999
24	5	70	141.7500	.00000	.99999	34	3	72	154.2955	.00000	.99999
20	7	72	149.8712	.00000	.99999	20	1	68	138.4773	.00000	.99999
29	3	67	130.7348	.00000	.99999	16	7	76	172.4167	.00000	.99999
42	0	57	102.1364	.00000	.99999	34	0	65	128.0758	.00000	.99999
32	2	65	124.1667	.00000	.99999	26	2	71	150.7121	.00000	.99999
36	1	62	115.0227	.00000	.99999	21	4	74	163.6364	.00000	.99999
26	4	69	138.2576	.00000	.99999	19	5	75	168.1894	.00000	.99999
18	8	73	154.5000	.00000	.99999	29	1	69	142.9167	.00000	.99999
15	10	74	159.0000	.00000	.99999	33	0	66	132.0000	.00000	.99999
41	0	58	104.8485	.00000	.99999	17	6	75	173.1212	.00000	.99999
28	3	68	135.1439	.00000	.99999	23	3	73	159.4621	.00000	.99999
35	1	63	118.5530	.00000	.99999	15	7	77	178.4318	.00000	.99999
23	6	72	150.8182	.00000	.99999	25	2	72	155.6667	.00000	.99999
21	5	71	146.7348	.00000	.99999	28	1	70	147.5076	.00000	.99999
16	9	74	159.5076	.00000	.99999	32	0	67	136.0758	.00000	.99999
31	2	66	128.2121	.00000	.99999	20	4	75	169.1667	.00000	.99999
19	7	73	155.2803	.00000	.99999	18	5	75	173.9318	.00000	.99999
40	0	59	107.7121	.00000	.99999	22	3	74	164.7803	.00000	.99999
25	4	70	143.0303	.00000	.99999	16	6	77	179.0758	.00000	.99999
17	8	74	160.1212	.00000	.99999	31	0	68	140.3030	.00000	.99999
34	1	64	122.2348	.00000	.99999	27	1	71	152.2500	.00000	.99999
39	0	60	110.7273	.00000	.99999	24	2	73	160.7727	.00000	.99999
27	3	69	139.7045	.00000	.99999	19	4	76	174.8485	.00000	.99999
30	2	67	132.4091	.00000	.99999	21	3	75	170.2500	.00000	.99999
22	5	72	151.8712	.00000	.99999	17	5	77	179.8258	.00000	.99999
20	6	73	156.1667	.00000	.99999	30	0	69	144.6818	.00000	.99999
24	4	71	147.9545	.00000	.99999	26	1	72	157.1439	.00000	.99999
15	9	75	165.3409	.00000	.99999	15	6	78	185.1818	.00000	.99999
38	0	61	113.8939	.00000	.99999	23	2	74	166.0303	.00000	.99999
33	1	65	126.0682	.00000	.99999	29	0	70	149.2121	.00000	.99999
18	7	74	160.8409	.00000	.99999	18	4	77	180.6818	.00000	.99999

(26)

TABLE D  
CHI SQUARE - P0(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(D)
20	3	76	175.8712	.00000	.99999
15	5	78	185.8712	.00000	.99999
25	1	73	162.1894	.00000	.99999
22	2	75	171.4394	.00000	.99999
23	0	71	153.8939	.00000	.99999
19	3	77	181.6439	.00000	.99999
24	1	74	167.3864	.00000	.99999
17	4	78	186.6667	.00000	.99999
21	2	76	177.0000	.00000	.99999
15	5	79	192.0682	.00000	.99999
27	0	72	158.7273	.00000	.99999
23	1	75	172.7348	.00000	.99999

TABLE E  
CHI SQUARE - P0(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
13	52	33	17.8939	.00000	.99996	15	16	68	123.8182	.00000	.99999
13	53	32	17.3258	.00000	.99995	15	17	67	118.4318	.00000	.99999
13	54	31	15.8939	.00000	.99993	15	18	66	113.1818	.00000	.99999
13	55	30	15.5985	.00000	.99992	15	19	65	108.0682	.00000	.99999
13	56	29	15.4394	.00000	.99992	15	20	64	103.0909	.00000	.99999
13	57	28	15.4167	.00000	.99992	15	21	63	98.2500	.00000	.99999
13	58	27	15.5303	.00000	.99992	15	22	62	93.5455	.00000	.99999
13	59	26	16.7803	.00000	.99993	15	23	61	88.9773	.00000	.99999
13	60	25	17.1667	.00000	.99994	15	24	60	84.5455	.00000	.99999
13	61	24	17.6894	.00000	.99995	15	25	59	80.2500	.00000	.99999
13	62	23	18.3485	.00000	.99996	15	26	58	76.0909	.00000	.99999
13	63	22	19.1439	.00000	.99997	15	27	57	72.0682	.00000	.99999
13	64	21	20.0758	.00000	.99998	15	28	56	68.1818	.00000	.99999
13	65	20	21.1439	.00000	.99998	15	29	55	64.4318	.00000	.99999
13	66	19	22.3485	.00000	.99999	15	30	54	60.8182	.00000	.99999
13	67	18	23.6894	.00000	.99999	15	31	53	57.3409	.00000	.99999
13	68	17	25.1667	.00000	.99999	15	32	52	54.0000	.00000	.99999
13	69	16	26.7803	.00000	.99999	15	33	51	50.7955	.00000	.99999
13	70	15	28.5303	.00000	.99999	15	34	50	47.7273	.00000	.99999
13	71	14	30.4167	.00000	.99999	15	35	49	44.7955	.00000	.99999
13	72	13	32.4394	.00000	.99999	15	36	48	42.0000	.00000	.99999
13	73	12	34.5985	.00000	.99999	15	37	47	39.3409	.00000	.99996
13	74	11	36.8939	.00000	.99999	15	38	46	36.8182	.00000	.99999
13	75	10	39.3258	.00000	.99999	15	39	45	34.4318	.00000	.99999
13	76	9	41.8939	.00000	.99999	15	40	44	32.1818	.00000	.99999
13	77	8	44.5985	.00000	.99999	15	41	43	30.0682	.00000	.99999
13	78	7	47.4394	.00000	.99999	15	42	42	28.0909	.00000	.99999
13	79	6	50.4167	.00000	.99999	15	43	41	26.2500	.00000	.99999
13	80	5	53.5303	.00000	.99999	15	44	40	24.5455	.00000	.99999
13	81	4	56.7803	.00000	.99999	15	45	39	22.9773	.00000	.99998
13	82	3	60.1667	.00000	.99999	15	46	38	21.5455	.00000	.99998
13	83	2	63.6894	.00000	.99999	15	47	37	20.2500	.00000	.99997
13	84	1	67.3485	.00000	.99999	15	48	36	19.0909	.00000	.99996
13	85	0	71.1439	.00000	.99999	15	49	35	18.0682	.00000	.99994
13	86	0	75.0758	.00000	.99999	15	50	34	17.1818	.00000	.99991
13	87	0	79.1439	.00000	.99999	15	51	33	16.4318	.00000	.99988
13	88	0	83.3485	.00000	.99999	15	52	32	15.8182	.00000	.99985
13	89	0	87.6894	.00000	.99999	15	53	31	15.3409	.00000	.99983
13	90	0	92.1667	.00000	.99999	15	54	30	15.0000	.00000	.99980
13	91	0	96.7803	.00000	.99999	15	55	29	14.7955	.00000	.99978
13	92	0	101.5303	.00000	.99999	15	56	28	14.7273	.00000	.99976
13	93	0	106.4167	.00000	.99999	15	57	27	14.7955	.00000	.99977
13	94	0	111.4394	.00000	.99999	15	58	26	15.0000	.00000	.99979
13	95	0	116.5985	.00000	.99999	15	59	25	15.3409	.00000	.99982
13	96	0	121.8939	.00000	.99999	15	60	24	15.8182	.00000	.99984
13	97	0	127.3258	.00000	.99999	15	61	23	16.4318	.00000	.99988
13	98	0	132.8939	.00000	.99999	15	62	22	17.1818	.00000	.99991
13	99	0	138.5985	.00000	.99999	15	63	21	18.0682	.00000	.99994
13	100	0	144.4394	.00000	.99999	15	64	20	19.0909	.00000	.99996
13	101	0	150.4167	.00000	.99999	15	65	19	20.2500	.00000	.99997

(1)

TABLE E

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
15	66	18	21.5455	.00000	.99998	16	31	52	53.5076	.00000	.99999
15	67	17	22.9773	.00000	.99999	16	32	51	50.2575	.00000	.99999
15	68	16	24.5455	.00000	.99999	16	33	50	47.1439	.00000	.99999
15	69	15	26.2500	.00000	.99999	16	34	49	44.1667	.00000	.99999
15	70	14	28.0909	.00000	.99999	16	35	48	41.3258	.00000	.99999
15	71	13	30.0682	.00000	.99999	16	36	47	38.6212	.00000	.99999
15	72	12	32.1818	.00000	.99999	16	37	46	36.0500	.00000	.99999
15	73	11	34.4318	.00000	.99999	16	38	45	33.6258	.00000	.99999
15	74	10	36.8182	.00000	.99999	16	39	44	31.3258	.00000	.99999
15	75	9	39.3409	.00000	.99999	16	40	43	29.1667	.00000	.99996
15	76	8	42.0000	.00000	.99999	16	41	42	27.1439	.00000	.99999
15	77	7	44.7955	.00000	.99999	16	42	41	25.2576	.00000	.99999
15	78	6	47.7273	.00000	.99999	16	43	40	23.5076	.00000	.99998
15	79	5	50.7955	.00000	.99999	16	44	39	21.8939	.00000	.99997
15	80	4	54.0000	.00000	.99999	16	45	38	20.4167	.00000	.99996
15	81	3	57.3409	.00000	.99999	16	46	37	19.0758	.00000	.99994
15	82	2	60.8182	.00000	.99999	16	47	36	17.8712	.00000	.99990
15	83	1	64.4318	.00000	.99999	16	48	35	16.8033	.00000	.99986
15	84	0	68.1818	.00000	.99999	16	49	34	15.8712	.00000	.99980
15	85	0	72.0682	.00000	.99999	16	50	33	15.0758	.00000	.99971
15	86	0	76.0909	.00000	.99999	16	51	32	14.4167	.00000	.99962
15	87	0	80.2500	.00000	.99999	16	52	31	13.8939	.00000	.99954
15	88	0	84.5455	.00000	.99999	16	53	30	13.5076	.00000	.99948
15	89	0	89.0909	.00000	.99999	16	54	29	13.2576	.00000	.99942
15	90	0	93.7955	.00000	.99999	16	55	28	13.1439	.00000	.99938
15	91	0	98.6431	.00000	.99999	16	56	27	13.1667	.00000	.99938
15	92	0	103.6394	.00000	.99999	16	57	26	13.3258	.00000	.99942
15	93	0	108.7803	.00000	.99999	16	58	25	13.6212	.00000	.99948
15	94	0	114.0682	.00000	.99999	16	59	24	14.0533	.00000	.99957
15	95	0	119.5000	.00000	.99999	16	60	23	14.6212	.00000	.99964
15	96	0	125.0909	.00000	.99999	16	61	22	15.3258	.00000	.99973
15	97	0	130.8431	.00000	.99999	16	62	21	16.1667	.00000	.99982
15	98	0	136.7500	.00000	.99999	16	63	20	17.1439	.00000	.99986
15	99	0	142.8182	.00000	.99999	16	64	19	18.2576	.00000	.99992
15	100	0	149.0455	.00000	.99999	16	65	18	19.5076	.00000	.99995
15	101	0	155.4318	.00000	.99999	16	66	17	20.8939	.00000	.99997
15	102	0	161.8712	.00000	.99999	16	67	16	22.4167	.00000	.99998
15	103	0	168.4667	.00000	.99999	16	68	15	24.0758	.00000	.99999
15	104	0	175.2167	.00000	.99999	16	69	14	25.8712	.00000	.99999
15	105	0	182.1250	.00000	.99999	16	70	13	27.8033	.00000	.99999
15	106	0	189.1909	.00000	.99999	16	71	12	29.8182	.00000	.99999
15	107	0	196.4167	.00000	.99999	16	72	11	32.0758	.00000	.99999
15	108	0	203.8182	.00000	.99999	16	73	10	34.4167	.00000	.99999
15	109	0	211.4394	.00000	.99999	16	74	9	36.8939	.00000	.99999
15	110	0	219.2727	.00000	.99999	16	75	8	39.5076	.00000	.99999
15	111	0	227.3182	.00000	.99999	16	76	7	42.2576	.00000	.99999
15	112	0	235.5727	.00000	.99999	16	77	6	45.1439	.00000	.99999
15	113	0	244.0364	.00000	.99999	16	78	5	48.1667	.00000	.99999
15	114	0	252.7100	.00000	.99999	16	79	4	51.3258	.00000	.99999
15	115	0	261.5937	.00000	.99999	16	80	3	54.6212	.00000	.99999

(2)

TABLE E  
CHI SQUARE - P0(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
15	81	2	58.0530	.00000	.99999	17	47	35	15.6439	.00000	.99969
15	82	1	61.6212	.00000	.99999	17	48	34	14.6667	.00000	.99955
15	83	0	65.3258	.00000	.99999	17	49	33	13.8258	.00000	.99936
15	84	0	69.1667	.00000	.99999	17	50	32	13.1212	.00000	.99919
15	85	0	73.1439	.00000	.99999	17	51	31	12.5530	.00000	.99895
15	86	0	77.2576	.00000	.99999	17	52	30	12.1212	.00000	.99873

TABLE E

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
19	32	48	39.9394	.00000	.99999	26	1	78	189.6894	.00000	.99999
19	33	47	37.0985	.00000	.99999	26	2	77	182.7121	.00000	.99999
19	34	46	34.3939	.00000	.99999	26	3	76	175.8712	.00000	.99999
19	35	45	31.8258	.00000	.99999	26	4	75	169.1667	.00000	.99999
19	36	44	29.3939	.00000	.99999	26	5	74	162.5985	.00000	.99999
19	37	43	27.0985	.00000	.99999	26	6	73	156.1667	.00000	.99999
19	38	42	24.9394	.00000	.99998	26	7	72	149.8712	.00000	.99999
19	39	41	22.9167	.00000	.99997	26	8	71	143.7121	.00000	.99999
19	40	40	21.0303	.00000	.99994	26	9	70	137.6894	.00000	.99999
19	41	39	19.2803	.00000	.99988	26	10	69	131.8030	.00000	.99999
19	42	38	17.6667	.00000	.99977	26	11	68	126.0530	.00000	.99999
19	43	37	16.1894	.00000	.99959	26	12	67	120.4394	.00000	.99999
19	44	36	14.8485	.00000	.99933	26	13	66	114.9621	.00000	.99999
19	45	35	13.6439	.00000	.99888	26	14	65	109.6212	.00000	.99999
19	46	34	12.5758	.00000	.99833	26	15	64	104.4167	.00000	.99999
19	47	33	11.6439	.00000	.99767	26	16	63	99.3485	.00000	.99999
19	48	32	10.8485	.00000	.99651	26	17	62	94.4167	.00000	.99999
19	49	31	10.1894	.00000	.99555	26	18	61	89.6212	.00000	.99999
19	50	30	9.6667	.00000	.99473	26	19	60	84.9621	.00000	.99999
19	51	29	9.2803	.00000	.99400	26	20	59	80.4394	.00000	.99999
19	52	28	8.9303	.00000	.99325	26	21	58	76.0530	.00000	.99999
19	53	27	8.6167	.00000	.99213	26	22	57	71.8030	.00000	.99999
19	54	26	8.3939	.00000	.99220	26	23	56	67.6894	.00000	.99999
19	55	25	8.1985	.00000	.99288	26	24	55	63.7121	.00000	.99999
19	56	24	8.0393	.00000	.99376	26	25	54	59.8712	.00000	.99999
19	57	23	7.9258	.00000	.99483	26	26	53	56.1667	.00000	.99999
19	58	22	7.8393	.00000	.99567	26	27	52	52.5985	.00000	.99999
19	59	21	7.7667	.00000	.99679	26	28	51	49.1667	.00000	.99999
19	60	20	7.7167	.00000	.99782	26	29	50	45.8712	.00000	.99999
19	61	19	7.6894	.00000	.99856	26	30	49	42.7121	.00000	.99999
19	62	18	7.6712	.00000	.99912	26	31	48	39.6894	.00000	.99999
19	63	17	7.6600	.00000	.99950	26	32	47	36.8030	.00000	.99999
19	64	16	7.6536	.00000	.99973	26	33	46	34.0530	.00000	.99999
19	65	15	7.6518	.00000	.99987	26	34	45	31.4394	.00000	.99999
19	66	14	7.6545	.00000	.99994	26	35	44	28.9621	.00000	.99999
19	67	13	7.6619	.00000	.99997	26	36	43	26.6212	.00000	.99998
19	68	12	7.6739	.00000	.99998	26	37	42	24.4167	.00000	.99998
19	69	11	7.6903	.00000	.99999	26	38	41	22.3485	.00000	.99999
19	70	10	7.7119	.00000	.99999	26	39	40	20.4167	.00000	.99999
19	71	9	7.7385	.00000	.99999	26	40	39	18.6212	.00000	.99981
19	72	8	7.7700	.00000	.99999	26	41	38	16.9621	.00000	.99962
19	73	7	7.8063	.00000	.99999	26	42	37	15.4394	.00000	.99934
19	74	6	7.8475	.00000	.99999	26	43	36	14.0530	.00000	.99885
19	75	5	7.8936	.00000	.99999	26	44	35	12.8030	.00000	.99871
19	76	4	7.9447	.00000	.99999	26	45	34	11.6894	.00000	.99716
19	77	3	7.9998	.00000	.99999	26	46	33	10.7121	.00000	.99563
19	78	2	8.0589	.00000	.99999	26	47	32	9.8712	.00000	.99399
19	79	1	8.1212	.00000	.99999	26	48	31	9.1667	.00000	.99118
19	80	0	8.1867	.00000	.99999	26	49	30	8.5985	.00000	.98865
20	0	79	196.8030	.00000	.99999	26	50	29	8.1667	.00000	.98749

(5)

TABLE E

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
20	51	28	7.8712	.00013	.98660	21	21	57	72.6682	.00000	.99999
20	52	27	7.7121	.00014	.98466	21	22	56	69.9091	.00000	.99999
20	53	26	7.6894	.00014	.98423	21	23	55	67.0000	.00000	.99999
20	54	25	7.6803	.00014	.98493	21	24	54	64.0000	.00000	.99999
20	55	24	7.6930	.00013	.98665	21	25	53	60.9000	.00000	.99999
20	56	23	7.7394	.00011	.98846	21	26	52	57.6634	.00000	.99999
20	57	22	7.8212	.00009	.99060	21	27	51	54.3959	.00000	.99999
20	58	21	7.9412	.00007	.99308	21	28	50	51.1820	.00000	.99999
20	59	20	8.0967	.00005	.99593	21	29	49	48.0136	.00000	.99999
20	60	19	8.2885	.00003	.99955	21	30	48	44.8955	.00000	.99999
20	61	18	8.5167	.00002	.99792	21	31	47	41.8266	.00000	.99999
20	62	17	8.7812	.00001	.99979	21	32	46	38.8182	.00000	.99999
20	63	16	9.0812	.00000	.99935	21	33	45	35.8591	.00000	.99999
20	64	15	9.4167	.00000	.99968	21	34	44	32.9485	.00000	.99999
20	65	14	9.7894	.00000	.99985	21	35	43	30.0894	.00000	.99999
20	66	13	10.1930	.00000	.99994	21	36	42	27.2866	.00000	.99999
20	67	12	10.6389	.00000	.99997	21	37	41	24.5366	.00000	.99999
20	68	11	11.1212	.00000	.99998	21	38	40	21.8366	.00000	.99999
20	69	10	11.6439	.00000	.99999	21	39	39	19.1868	.00000	.99999
20	70	9	12.2076	.00000	.99999	21	40	38	16.6868	.00000	.99999
20	71	8	12.8119	.00000	.99999	21	41	37	14.3366	.00000	.99999
20	72	7	13.4567	.00000	.99999	21	42	36	12.1366	.00000	.99999
20	73	6	14.1412	.00000	.99999	21	43	35	10.0868	.00000	.99999
20	74	5	14.8667	.00000	.99999	21	44	34	8.1868	.00000	.99999
20	75	4	15.6333	.00000	.99999	21	45	33	6.4266	.00000	.99999
20	76	3	16.4439	.00000	.99999	21	46	32	4.8066	.00000	.99999
20	77	2	17.2985	.00000	.99999	21	47	31	3.3266	.00000	.99999
20	78	1	18.1985	.00000	.99999	21	48	30	1.9866	.00000	.99999
20	79	0	19.1439	.00000	.99999	21	49	29	7.1591	.00000	.99999
21	0	78	190.9091	.00000	.99999	21	50	28	6.8182	.00000	.99999
21	1	77	183.8866	.00000	.99999	21	51	27	5.6136	.00000	.99999
21	2	76	177.0000	.00000	.99999	21	52	26	4.5455	.00000	.99999
21	3	75	170.2500	.00000	.99999	21	53	25	3.6136	.00000	.99999
21	4	74	163.6364	.00000	.99999	21	54	24	2.8182	.00000	.99999
21	5	73	157.1591	.00000	.99999	21	55	23	2.1591	.00000	.99999
21	6	72	150.8182	.00000	.99999	21	56	22	1.6366	.00000	.99999
21	7	71	144.6136	.00000	.99999	21	57	21	1.2500	.00000	.99999
21	8	70	138.5455	.00000	.99999	21	58	20	9.8000	.00000	.99999
21	9	69	132.6136	.00000	.99999	21	59	19	8.8664	.00000	.99999
21	10	68	126.8182	.00000	.99999	21	60	18	8.0991	.00000	.99999
21	11	67	121.1591	.00000	.99999	21	61	17	7.4868	.00000	.99999
21	12	66	115.6364	.00000	.99999	21	62	16	6.9366	.00000	.99999
21	13	65	110.2500	.00000	.99999	21	63	15	6.4455	.00000	.99999
21	14	64	105.0000	.00000	.99999	21	64	14	6.0136	.00000	.99999
21	15	63	99.8866	.00000	.99999	21	65	13	5.6366	.00000	.99999
21	16	62	94.9091	.00000	.99999	21	66	12	5.3066	.00000	.99999
21	17	61	90.0682	.00000	.99999	21	67	11	5.0182	.00000	.99999
21	18	60	85.3636	.00000	.99999	21	68	10	4.7766	.00000	.99999
21	19	59	80.7955	.00000	.99999	21	69	9	4.5766	.00000	.99999
21	20	58	76.3366	.00000	.99999	21	70	8	4.4166	.00000	.99999

(6)

TABLE E

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=991

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
22	71	7	31.1591	.00000	.99999	22	42	35	11.4394	.00004	.99559
22	72	6	33.8182	.00000	.99999	22	43	34	10.2348	.00007	.99301
22	73	5	35.6136	.00000	.99999	22	44	33	9.1667	.00010	.98900
22	74	4	39.5455	.00000	.99999	22	45	32	8.2348	.00015	.98306
22	75	3	42.6136	.00000	.99999	22	46	31	7.4394	.00021	.97755
22	76	2	45.8182	.00000	.99999	22	47	30	6.7803	.00027	.96970
22	77	1	49.1591	.00000	.99999	22					

TABLE E

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X <sup>2</sup>	P(A)	CUM P(E)	U	V	W	X <sup>2</sup>	P(A)	CUM P(E)
23	37	38	13.2045	.000031	.999889	25	11	63	103.0985	.000000	.999999
23	38	37	13.53003	.000042	.999785	25	12	62	97.9394	.000000	.999999
23	35	36	11.9316	.000004	.999571	25	13	61	92.9167	.000000	.999999
23	43	35	1.50000	.000037	.999192	25	14	60	88.0303	.000000	.999999
24	41	34	9.2445	.000012	.98714	25	15	59	83.2803	.000000	.999999
23	42	35	3.2455	.000029	.97816	25	16	58	78.6667	.000000	.999999
24	43	32	7.0227	.000033	.96766	25	17	57	74.1894	.000000	.999999
23	44	31	5.1364	.000044	.95188	25	18	56	69.8485	.000000	.999999
23	45	30	5.3864	.000060	.93505	25	19	55	65.5439	.000000	.999999
23	40	29	4.7727	.000079	.91421	25	20	54	61.5758	.000000	.999999
23	47	28	4.2955	.000097	.89268	25	21	53	57.6439	.000000	.999999
23	48	27	3.9545	.000113	.87268	25	22	52	53.8485	.000000	.999999
23	49	26	3.7500	.000125	.86185	25	23	51	50.1894	.000000	.999999
23	50	25	3.6618	.000136	.85296	25	24	50	46.6667	.000000	.999999
23	51	24	3.7500	.000127	.85935	25	25	49	43.2803	.000000	.999999
23	52	23	3.9545	.000117	.87155	25	26	48	40.0303	.000000	.999999
23	53	22	4.2955	.000102	.88765	25	27	47	36.9167	.000000	.999999
23	54	21	4.7727	.000083	.90697	25	28	46	33.9394	.000000	.999999
23	55	20	5.3864	.000063	.92824	25	29	45	31.0985	.000000	.999999
23	56	19	6.1364	.000045	.95056	25	30	44	28.3939	.000000	.999999
23	57	18	7.0227	.000031	.96738	25	31	43	25.8258	.000000	.999999
23	58	17	8.0455	.000019	.97911	25	32	42	23.3939	.000000	.999999
23	59	16	9.2045	.000011	.98826	25	33	41	21.2985	.000000	.999999
23	60	15	10.5000	.000006	.99388	25	34	40	19.9394	.000000	.999999
23	61	14	11.9316	.000003	.99669	25	35	39	18.9167	.000000	.999999
23	62	13	13.5000	.000001	.99862	25	36	38	18.0303	.000001	.99876
23	63	12	15.2045	.000001	.99945	25	37	37	17.2803	.000002	.99757
23	64	11	17.0455	.000000	.99979	25	38	36	16.6667	.000005	.99507
23	65	10	19.0227	.000000	.99993	25	39	35	16.1894	.000009	.99077
23	66	9	21.1364	.000000	.99997	25	40	34	15.8485	.000015	.86335
23	67	8	23.3864	.000000	.99999	25	41	33	15.6439	.000025	.97258
23	68	7	25.7727	.000000	.99999	25	42	32	15.5758	.000039	.95680
23	69	6	28.2955	.000000	.99999	25	43	31	15.6439	.000058	.93739
23	70	5	30.9545	.000000	.99999	25	44	30	15.8485	.000081	.91943
23	71	4	33.7500	.000000	.99999	25	45	29	16.1894	.000119	.87821
23	72	3	35.6818	.000000	.99999	25	46	28	16.6667	.000177	.84887
23	73	2	37.7500	.000000	.99999	25	47	27	17.2803	.000263	.81799
23	74	1	42.9545	.000000	.99999	25	48	26	18.0303	.000388	.80077
23	75	0	45.2955	.000000	.99999	25	49	25	18.9167	.000559	.78196
23	0	74	168.8485	.000000	.99999	25	50	24	19.9394	.000790	.76390
25	1	73	162.1894	.000000	.99999	25	51	23	20.985	.001183	.80260
25	2	72	155.6667	.000000	.99999	25	52	22	21.3939	.001662	.82287
25	3	71	149.2803	.000000	.99999	25	53	21	21.8258	.00225	.85032
25	4	70	143.3303	.000000	.99999	25	54	20	22.3939	.00295	.88352
25	5	69	137.9167	.000000	.99999	25	55	19	23.0985	.00376	.91653
25	6	68	133.9394	.000000	.99999	25	56	18	23.9394	.00472	.94342
25	7	67	129.9394	.000000	.99999	25	57	17	24.9167	.00585	.96454
25	8	66	126.9394	.000000	.99999	25	58	16	26.0303	.00719	.97874
25	9	65	113.8258	.000000	.99999	25	59	15	27.2803	.00874	.98880
25	10	64	108.9394	.000000	.99999	25	60	14	28.6667	.000005	.99458

(9)

TABLE E

U	V	W	X <sup>2</sup>	P(A)	CUM P(E)	U	V	W	X <sup>2</sup>	P(A)	CUM P(E)
25	61	13	12.1894	.000002	.999750	26	35	37	13.1667	.000003	.999736
25	62	12	13.8485	.000001	.999893	26	36	36	11.5076	.000005	.999478
25	63	11	15.6439	.000000	.999660	26	38	35	9.9848	.000010	.989959
25	64	10	17.5758	.000000	.99986	26	39	34	8.5985	.000017	.98126
25	65	9	19.6439	.000000	.99996	26	40	33	7.3485	.000029	.96827
25	66	8	21.8485	.000000	.99998	26	41	32	6.2348	.000047	.94826
25	67	7	24.1894	.000000	.99999	26	42	31	5.2576	.000072	.92024
25	68	6	26.6667	.000000	.99999	26	43	30	4.4167	.000103	.88663
25	69	5	29.2803	.000000	.99999	26	44	29	3.7121	.000141	.84067
25	70	4	32.0303	.000000	.99999	26	45	28	3.1439	.000182	.80042
25	71	3	34.9167	.000000	.99999	26	46	27	2.7121	.000221	.74655
25	72	2	37.9394	.000000	.99999	26	47	26	2.4167	.000254	.72082
25	73	1	41.0985	.000000	.99999	26	48	25	2.2576	.000275	.69998
25	74	0	44.3939	.000000	.99999	26	49	24	2.2348	.000281	.68875
26	0	73	163.7121	.000000	.99999	26	50	23	2.3485	.000270	.70258
26	1	72	157.1439	.000000	.99999	26	51	22	2.5985	.000243	.72578
26	2	71	150.7121	.000000	.99999	26	52	21	2.9848	.000206	.76805
26	3	70	144.4167	.000000	.99999	26	53	20	3.5076	.000163	.81962
26	4	69	138.2376	.000000	.99999	26	54	19	4.1567	.000121	.86600
26	5	68	132.2348	.000000	.99999	26	55	18	4.9621	.000083	.92614
26	6	67	126.3485	.000000	.99999	26	56	17	5.8939	.000054	.94130
26	7	66	120.5985	.000000	.99999	26	57	16	6.9521	.000032	.96551
26	8	65	114.9848	.000000	.99999	26	58	15	8.1667	.000018	.98039
26	9	64	109.5076	.000000	.99999	26	59	14	9.5076	.000010	.99043
26	10	63	104.1667	.000000	.99999	26	60	13	10.9848	.000006	.99542
26	11	62	98.9621	.000000	.99999	26	61	12	12.5985	.000004	.99905
26	12	61	93.8939	.000000	.99999	26	62	11	14.3485	.000001	.99927
26	13	60	88.9621	.000000	.99999	26	63	10	16.2348	.000000	.99975
26	14	59	84.1667	.000000	.99999	26	64	9	18.2576	.000000	.99966
26	15	58	79.5076	.000000	.99999	26	65	8	20.4167	.000000	.99997
26	16	57	74.9848	.000000	.99999	26	66	7	22.7121	.000000	.99999
26	17	56	70.5985	.000000	.99999	26	67	6	25.1439	.000000	.99999
26	18	55	66.3485	.000000	.99999	26	68	5	27.7121	.000000	.99999
26	19	54	62.2348	.000000	.99999	26	69	4	30.4167	.000000	.99999
26	20	53	58.2576	.000000	.99999	26	70	3	33.2576	.000000	.99999
26	21	52	54.4167	.000000	.99999	26	71	2	36.2348	.000000	.99999
26	22	51	50.7121	.000000	.99999	26	72	1	39.3485	.000000	.99999
26	23	50	47.1439	.000000	.99999	26	73	0	42.5985	.000000	.99999
26	24	49	43.7121	.000000	.99999	27	0	72	158.7273	.000000	.99999
26	25	48	40.4167	.000000	.99999	27	1	71	152.2500	.000000	.99999
26	26	47	37.2576	.000000	.99999	27	2	70	145.9591	.000000	.99999
26	27	46	34.2348	.000000	.99999	27	3	69	139.7045	.000000	.99999
26	28	45	31.3485	.000000	.99999	27	4	68	133.6366	.000000	.99999
26	29	44	28.5985	.000000	.99999	27	5	67	127.7045	.000000	.99999
26	30	43	25.9848	.000000	.99998	27	6	66	121.9091	.000000	.99999
26	31	42	23.5076	.000000	.99997	27	7	65	116.2500	.000000	.99999
26	32	41	21.1667	.000000	.99996	27	8	64	110.7273	.000000	.99999
26	33	40	18.9621	.000000	.99976	27	9	63	105.3409	.000000	.99999
26	34	39	16.8939	.000001	.99944	27	10	62	100.0909	.000000	.99999
26	35	38	14.9621	.000001	.99870	27	11	61	94.9773	.000000	.99999

(10)

TABLE E

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X <sup>2</sup>	P(A)	CUM P(E)	U	V	W	X <sup>2</sup>	P(A)	CUM P(E)
27	12	60	9.0000	.000000	.999999	27	62	10	15.0000	.000000	.999956
27	13	59	85.1591	.000000	.999999	27	63	9	16.9773	.000000	.99988
27	14	58	80.4545	.000000	.999999	27	64	8	19.0905	.000000	.99996
27	15	57	75.8864	.000000	.999999	27	65	7	21.3409		

TABLE E

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
29 67 3	28.9167	.000001	.99999	30 46 231	.4091	.00717	.19057	31 26 42	25.6667	.00000	.99998
29 68 2	3117576	.00000	.99999	31 47 22	.4773	.00701	.20463	31 27 41	23.0985	.00000	.99997
29 69 1	34.7348	.00000	.99999	30 48 21	.6818	.00643	.271961	21 28 40	20.6667	.00000	.99992
29 70 0	37.8485	.00000	.99999	30 49 20	1.0227	.00551	.373401	31 29 39	18.3712	.00000	.99998
30 0 69	144.6618	.000001	.99999	30 50 19	1.50001	.00441	.49351	31 30 38	16.2121	.00001	.99994
30 1 68	138.4773	.00000	.99999	30 51 18	2.1136	.00329	.632051	31 31 37	14.1894	.00001	.99985
30 2 67	132.4091	.000001	.99999	30 52 17	2.8636	.00227	.739831	31 32 36	12.3030	.00003	.99658
30 3 66	125.4773	.00000	.99999	30 53 16	3.7500	.00146	.83489	31 33 35	10.5530	.00007	.99268
30 4 65	120.6818	.00000	.99999	30 54 15	4.7727	.00086	.931941	31 34 34	8.9394	.00014	.98480
30 5 64	115.3227	.00000	.99999	30 55 14	5.9318	.00047	.947791	31 35 33	7.4621	.00027	.97051
30 6 63	109.5000	.00000	.99999	30 56 13	7.2273	.00024	.97426	31 36 32	6.1212	.00049	.94492
30 7 62	104.1136	.00000	.99999	30 57 12	8.6591	.00011	.988371	31 37 31	4.9167	.00085	.90279
30 8 61	98.8636	.00000	.99999	30 58 11	10.2273	.00004	.995211	31 38 30	3.8485	.00139	.84346
30 9 60	93.7500	.000001	.99999	30 59 10	11.9318	.00002	.998201	31 39 29	2.9167	.00214	.76390
30 10 59	88.7727	.00000	.99999	30 60 9	13.7727	.00001	.99943	31 40 28	2.2121	.00310	.64145
30 11 58	83.9318	.00000	.99999	30 61 8	15.7500	.00000	.99983	31 41 27	1.4621	.00423	.51516
30 12 57	79.2273	.00000	.99999	30 62 7	17.8636	.00000	.99996	31 42 26	.9394	.00544	.384331
30 13 56	74.6591	.000001	.99999	30 63 6	20.1136	.00000	.99998	31 43 25	.5530	.00658	.259021
30 14 55	70.2273	.00000	.99999	30 64 5	22.5000	.00000	.999991	31 44 24	.3030	.00748	.15419
30 15 54	65.9318	.00000	.99999	30 65 4	25.0227	.00000	.99999	31 45 23	.1894	.00798	.92121
30 16 53	61.7727	.00000	.99999	30 66 3	27.6818	.00000	.99999	31 46 22	.1212	.00798	.10010
30 17 52	57.7500	.00000	.99999	30 67 2	30.4773	.00000	.999991	31 47 21	.3712	.00747	.16166
30 18 51	53.8636	.00000	.99999	30 68 1	33.4091	.00000	.999991	31 48 20	.6667	.00653	.265551
30 19 50	50.1136	.00000	.99999	30 69 0	36.4773	.00000	.999991	31 49 19	1.0985	.00533	.40431
30 20 49	46.5000	.00000	.99999	31 0 68	140.3030	.00000	.999991	31 50 18	1.6667	.00405	.544021
30 21 48	43.0227	.00000	.99999	31 1 67	134.1894	.00000	.999991	31 51 17	2.3712	.00286	.683121
30 22 47	39.6818	.00000	.99999	31 2 66	128.2121	.00000	.999991	31 52 16	3.2121	.00187	.79155
30 23 46	36.4773	.00000	.99999	311 3 65	122.3712	.00000	.99999	31 53 15	4.1894	.00113	.87381
30 24 45	33.4091	.00000	.99999	311 4 64	116.6667	.00000	.999991	31 54 14	5.3030	.00063	.933771
30 25 44	30.4773	.00000	.99999	311 5 63	111.1985	.00000	.999991	31 55 13	6.5530	.00032	.965831
30 26 43	27.6818	.00000	.99999	311 6 62	105.6667	.00000	.99999	31 56 12	7.9394	.00015	.983651
30 27 42	25.0227	.00000	.99998	311 7 61	100.3712	.00000	.99999	31 57 11	9.4621	.00006	.99340
30 28 41	22.5000	.00000	.99996	311 8 60	95.2121	.00000	.99999	31 58 10	11.1212	.00002	.99753
30 29 40	20.1136	.000001	.99989	311 9 59	90.1894	.00000	.99999	31 59 9	12.9167	.00001	.999161
30 30 39	17.8636	.000001	.99970	31110 58	85.3030	.00000	.99999	31 60 8	14.8485	.00000	.999751
30 31 38	15.7500	.000001	.99922	31111 57	80.5330	.00000	.99999	31 61 7	16.9167	.00000	.99994
30 32 37	13.7727	.00000	.99614	31 12 56	75.9394	.00000	.99999	31 62 6	19.1212	.00000	.99961
30 33 36	11.9318	.00000	.99599	31113 55	71.4621	.00000	.99999	31 63 5	21.4621	.00000	.99999
30 34 35	10.2273	.00000	.99113	31114 54	67.1212	.00000	.99999	31 64 4	23.9394	.00000	.99999
30 35 34	8.6591	.00000	.98260	31115 53	62.9167	.00000	.99999	31 65 3	26.5330	.00000	.99999
30 36 33	7.2273	.000001	.96708	31116 52	58.8485	.00000	.99999	31 66 2	29.3030	.00000	.99999
30 37 32	5.9318	.000001	.94022	31117 51	54.9167	.00000	.99999	31 67 1	32.1894	.00000	.99999
30 38 31	4.7727	.000001	.89833	31118 50	51.1212	.00000	.999991	31 68 0	35.2121	.00000	.99999
30 39 30	3.7500	.00000	.83196	31119 49	47.4621	.00000	.99999	32 0 67	38.4621	.00000	.99999
30 40 29	2.8636	.000001	.74876	31120 48	43.9394	.00000	.99999	32 1 66	41.1894	.00000	.99999
30 41 28	2.1136	.000001	.63435	31 21 47	40.5330	.00000	.99999	32 2 65	44.1212	.00000	.99999
30 42 27	1.5000	.000001	.52776	31 22 46	37.3030	.00000	.999991	32 3 64	47.1894	.00000	.99999
30 43 26	1.0227	.00000	.41620	31 23 45	34.1894	.00000	.999991	32 4 63	50.1136	.00000	.99999
30 44 25	.6818	.00000	.29089	31 24 44	31.2121	.00000	.99999	32 5 62	53.1467	.00000	.99999
30 45 24	.4773	.00000	.23229	31 25 43	28.3712	.00000	.99999	32 6 61	56.1894	.00000	.99999

(13)

TABLE E

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
32 7 60	96.7803	.00000	.99999	32 8 59	91.7121	.00000	.99999	32 9 58	86.7803	.00000	.99999
32 8 59	91.7121	.00000	.99999	32 10 57	81.9848	.00000	.99999	32 11 56	77.3258	.00000	.99999
32 9 58	86.7803	.00000	.99999	32 12 55	72.4030	.00000	.99999	32 13 54	68.4167	.00000	.99999
32 10 57	81.9848	.00000	.99999	32 14 53	64.1567	.00000	.99999	32 15 52	60.0530	.00000	.99999
32 11 56	77.3258	.00000	.99999	32 16 51	56.0758	.00000	.99999	32 17 50	52.2348	.00000	.99999
32 12 55	72.4030	.00000	.99999	32 18 49	48.5303	.00000	.99999	32 19 48	44.9621	.00000	.99999
32 13 54	68.4167	.00000	.99999	32 20 47	41.5313	.00000	.99999	32 21 46	38.2348	.00000	.99999
32 14 53	64.1567	.00000	.99999	32 22 45	35.0758	.00000	.99999	32 23 44	32.0530	.00000	.99999
32 15 52	60.0530	.00000	.99999	32 24 43	29.1667	.00000	.99999	32 25 42	26.4167	.00000	.99999
32 16 51	56.0758	.00000	.99999	32 26 41	23.8636	.00000	.99999	32 27 40	21.6167	.00000	.99999
32 17 50	52.2348	.00000	.99999	32 28 39	18.9848	.00000	.99999	32 29 38	16.7803	.00000	.99999
32 18 49	48.5303	.00000	.99999	32 30 37	14.7121	.00000	.99999	32 31 36	12.7803	.00000	.99999
32 19 48	44.9621	.00000	.99999	32 32 35	11.2121	.00000	.99999	32 33 34	8.9848	.00000	.99999
32 20 47	41.5313	.00000	.99999	32 34 33	7.6030	.00000	.99999	32 35 32	6.4167	.00000	.99999
32 21 46	38.2348	.00000	.99999	32 36 31	6.1667	.00000	.99999	32 37 30	5.1667	.00000	.99999
32 22 45	35.0758	.00000	.99999	32 38 29	4.6530	.00000	.99999	32 39 28	4.0530	.00000	.99999
32 23 44	32.0530	.00000	.99999	32 40 27	3.2348	.00000	.99999	32 41 26	2.5348	.00000	.99999
32 24 43	29.1667	.00000	.99999	32 42 25	2.3485	.00000	.99999	32 43 24	1.9848	.00000	.99999
32 25 42	26.4167	.00000	.99999	32 44 23	1.5313	.00000	.99999	32 45 22	1.1894	.00000	.99999
32 26 41	23.8636	.00000	.99999	32 46 21	1.0667	.00000	.99999	32 47 20	.7530	.00000	.99999
32 27 40	21.6167	.00000	.99999	32 48 19	.6343	.00000	.99999	32 49 18	.4621	.00000	.99999
32 28 39	18.9848	.00000	.99999	32 50 17	.3636	.00000	.99999	32 51 16	.2348	.00000	.99999
32 29 38	16.7803	.00000	.99999	32 52 15	.1894	.00000	.99999	32 53 14	.1212	.00000	.99999
32 30 37	14.7121	.00000	.99999	32 54 13	.0985	.00000	.99999	32 55 12	.0758	.00000	.99999
32 31 36	12.7803	.00000	.99999	32 56 11	.0530	.00000	.99999	32 57 10	.0313	.00000	.99999
32 32 35	10.9848	.00000	.99999	32 58 9	.0286	.00000	.99999	32 59 8	.0167	.00000	.99999
32 33 34	9.2348	.00000	.99999	32 59 7	.0136	.00000	.99999	32 60 6	.0091	.00000	.99999
32 34 33	7.6030	.00000	.99999	32 60 5	.0086	.00000	.99999	32 61 4	.0063	.00000	.99999
32 35 32	6.4167	.00000	.99999	32 61 3	.0053	.00000	.99999	32 62 2	.0040	.00000	.99999
32 36 31	5.1667	.00000	.99999	32 62 1	.0032	.00000	.99999	32 63 0	.0024	.00000	.99999
32 37 30	4.0530	.00000	.99999	32 63 0	.0019	.00000	.99999	32 64 0	.0014	.00000	.99999
32 38 29	3.2348	.00000	.99999	32 64 0	.0011	.00000	.99999	32 65 0	.0008	.00000	.99999
32 39 28	2.5348	.00000	.99999	32 65 0	.0008	.00000	.99999	32 66 0	.0006	.00000	.99999
32 40 27	1.9848	.00000	.99999	32 66 0	.0005	.00000	.99999	32 67 0	.0004	.00000	.99999
32 41 26	1.5313	.00000	.99999	32 67 0	.0004	.00000	.99999	32 68 0	.0003	.00000	.99999
32 42 25	1.1894	.00000	.99999	32 68 0	.0003	.00000	.99999	32 69 0	.0002	.00000	.99999
32 43 24	.9848	.00000	.99999	32 69 0	.0002	.00000	.99999	32 70 0	.0001	.00000	.99999
32 44											

TABLE E

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM	P(E)	U	V	W	X2	P(A)	CUM	P(E)		
35 56 8	12.3030	0.0001	.999247	36 41 22	.4773	.00688	.22542	37 27 35	14.7348	0.0001	.99941	38 14 47	49.6212	0.0000	.99999
35 57 7	11.1894	0.0000	.99979	36 42 21	.4091	.00721	.17622	37 28 34	12.8485	0.0001	.99988	38 15 46	46.95307	0.0000	.99999
35 58 6	15.21217	0.0000	.99995	36 43 20	.4773	.00704	.19761	37 29 33	11.9885	0.0003	.99829	38 16 45	42.62127	0.0000	.99999
35 59 5	10.3712	0.0000	.99998	36 44 19	.6818	.00640	.27838	37 30 32	9.8848	0.0007	.99170	38 17 44	39.32587	0.0003	.99999
35 60 4	20.6667	0.0000	.99997	36 45 18	1.0227	.00541	.38974	37 31 31	8.0076	0.0015	.98291	38 18 43	36.1667	0.0000	.99999
35 61 3	23.9985	0.0000	.99997	36 46 17	1.5000	.00423	.51939	37 32 30	6.6667	0.0029	.96798	38 19 42	33.14397	0.0003	.99999
35 62 2	23.6667	0.0000	.99997	36 47 167	2.1136	.00304	.65065	37 33 29	5.6621	0.0053	.94290	38 20 41	30.25767	0.0000	.99999
35 63 1	28.3712	0.0000	.99999	36 487157	2.8636	.00204	.77009	37 34 28	4.3939	0.0091	.90107	38 21 40	27.5076	0.0000	.99999
35 64 0	31.2121	0.0000	.99999	36 49 14	3.7500	.00125	.86600	37 35 27	3.6621	0.0146	.83635	38 22 39	24.8939	0.0000	.99999
35 65 123	6.818	0.0000	.99999	36 50 13	4.7727	.00070	.92235	37 36 26	2.6667	0.0219	.75315	38 23 38	22.167	0.0000	.99998
35 66 162	11370227	0.0000	.99999	36 51 12	5.9318	.00036	.96015	37 37 25	2.0076	0.0307	.68452	38 24 37	20.8758	0.0000	.99996
35 67 201	159.50007	0.0000	.99999	36 52 11	7.2273	.00016	.98244	37 38 24	1.8848	0.0464	.58006	38 25 36	17.8712	0.0000	.99989
35 68 30	104.1136	0.0000	.99999	36 53 10	8.6591	.00007	.99254	37 39 23	1.0985	0.0497	.43636	38 26 35	15.4030	0.0000	.99968
35 69 4	597.9878656	0.0000	.99999	36 54 9	10.2273	.00003	.99731	37 40 227	.8485	0.0572	.35993	38 27 34	13.8712	0.0001	.99917
35 70 5	587.75700	0.0000	.99999	36 55 8	11.9318	.00001	.99913	37 41 21	.73487	0.0614	.303177	38 28 33	12.0758	0.0002	.99796
35 71 6	877.77277	0.0000	.99999	36 56 7	13.7727	.00000	.99975	37 42 20	.7576	0.0614	.29703	38 29 32	10.4167	0.0004	.99534
35 72 7	83.9318	0.0000	.99999	36 57 6	15.7500	.00000	.99994	37 43 197	.9167	0.0571	.35664	38 30 31	8.89397	0.0009	.98997
35 73 8	73.2273	0.0000	.99999	36 58 5	17.8636	.00000	.99998	37 44 16	1.2121	0.0493	.44426	38 31 30	7.50767	0.0019	.97967
35 74 9	74.6591	0.0000	.99999	36 597 4	20.1136	.00000	.99999	37 45 17	1.6439	0.0395	.56001	38 32 29	6.25767	0.0035	.963857
35 75 10	73.2273	0.0000	.99999	36 60 3	22.5000	.00000	.99999	37 46 167	2.2121	0.0292	.671527	38 33 28	5.14397	0.0061	.932247
35 76 11	53.93187	0.0000	.99999	36 61 2	25.0227	.00000	.99999	37 47 15	2.9167	0.0199	.776077	38 34 27	4.1667	0.0101	.89171
35 77 12	61.77277	0.0000	.99999	36 62 1	27.6818	.00000	.99999	37 48 14	3.7576	0.0124	.863097	38 35 26	3.32587	0.0155	.825977
35 78 13	57.75007	0.0000	.99999	36 63 0	30.4773	.00000	.99999	37 49 13	4.7348	0.0071	.92165	38 36 25	2.62127	0.0224	.74434
35 79 14	53.8636	0.0000	.99999	37 0 62	11.72121	.00000	.99999	37 50 127	5.8485	0.0037	.95907	38 37 24	2.05767	0.0363	.65368
35 80 15	48.1136	0.0000	.99999	37 1 61	11.6439	.00000	.99999	37 51 117	7.8985	0.0017	.98109	38 38 23	1.62127	0.0383	.57551
35 81 16	45.5000	0.0000	.99999	37 2 60	10.62121	.00000	.99999	37 52 107	8.8485	0.0007	.991637	38 39 22	1.32587	0.0452	.488107
35 82 17	43.1227	0.0000	.99999	37 3 59	10.09167	.00000	.99999	37 53 9	10.0076	0.0003	.997057	38 40 21	1.16677	0.0497	.44133
35 83 18	39.6818	0.0000	.99999	37 4 58	95.7576	.00000	.99999	37 54 8	11.66677	0.0001	.999027	38 41 20	1.04397	0.0509	.42640
35 84 19	36.4773	0.0000	.99999	37 5 57	90.7348	.00000	.99999	37 55 7	13.4621	0.0000	.99971	38 42 19	1.25767	0.0485	.46585
35 85 20	35.40917	0.0000	.99999	37 6 56	85.8485	.00000	.99999	37 56 6	15.3939	0.0000	.99993	38 43 18	1.50767	0.0428	.51093
35 86 21	30.4773	0.0000	.99999	37 7 55	81.0985	.00000	.99999	37 57 5	17.4621	0.0000	.99988	38 44 17	1.89397	0.0350	.604897
35 87 22	27.6818	0.0000	.99999	37 8 54	76.4848	.00000	.99999	37 58 4	19.6667	0.0000	.99997	38 45 16	2.41677	0.0265	.70790
35 88 23	25.02277	0.0000	.99999	37 9 53	72.0076	.00000	.99999	37 59 3	22.0076	0.0000	.99997	38 46 157	3.17587	0.0184	.79710
35 89 24	22.5000	0.0000	.99998	37 10 52	67.6667	.00000	.99999	37 60 2	24.8848	0.0000	.99997	38 47 147	3.07127	0.0118	.87037
35 90 25	20.1136	0.0000	.99995	37 11 51	63.4621	.00000	.99999	37 61 1	27.0985	0.0000	.99997	38 48 13	4.80307	0.0069	.923047
35 91 26	17.86367	0.0000	.999857	37 12 50	59.3939	.00000	.99999	37 62 0	29.8485	0.0000	.99997	38 49 127	5.87127	0.0036	.959437
35 92 27	15.7500	0.0000	.99959	37 13 49	55.4621	.00000	.99999	38 0 61	11.38939	0.0000	.99997	38 50 117	7.67587	0.0017	.98192
35 93 28	13.77277	0.0000	.99892	37 14 48	51.6667	.00000	.99999	38 1 60	10.84167	0.0000	.99999	38 51 107	8.4167	0.0088	.99126
35 94 29	11.9318	0.0002	.99746	37 15 47	48.0076	.00000	.99999	38 2 59	10.3758	0.0000	.99999	38 52 9	9.8939	0.0003	.99693
35 95 30	10.2273	0.0005	.999416	37 16 46	44.8848	.00000	.999997	38 3 58	9.78712	0.0000	.99999	38 53 8	11.50767	0.0001	.99894
35 96 31	8.65917	0.0012	.987377	37 17 45	41.0985	.00000	.99997	38 4 577	92.8030	0.0000	.99997	38 54 7	13.25767	0.0000	.99970
35 97 32	7.2273	0.0023	.97449	37 18744	37.8485	.00000	.999997	38 5 56	87.8712	0.0000	.99997	38 55 6	15.14397	0.0000	.99992
35 98 33	5.9318	0.0044	.95144	37 19 43	34.7348	.00000	.99999	38 6 557	83.0758	0.0000	.99997	38 56 5	17.16677	0.0000	.99998
35 99 34	4.77277	0.0077	.91577	37 20 42	31.7576	.00000	.99999	38 7 547	78.4167	0.0000	.99997	38 57 4	19.32587	0.0000	.99959
35 100 35	3.7500	0.0124	.85424	37 21741	28.9167	.00000	.99999	38 8 537	73.8939	0.0000	.99997	38 58 3	21.62127	0.0000	.99997
35 101 36	2.8636	0.0200	.77409	37 22 407	26.2121	.00000	.99999	38 9 527	69.5076	0.0000	.99997	38 59 2	24.15307	0.0000	.99997
35 102 37	2.1136	0.0291	.67735	37 23 39	23.6439	.00000	.99999	38 10 51	65.2576	0.0000	.99997	38 60 1	26.62127	0.0000	.99999
35 103 38	1.5000	0.0399	.55606	37 24 38	21.2121	.00000	.99997	38 11 507	61.1439	0.0000	.99997	38 61 0	29.32587	0.0000	.99999
35 99 39	1.0227	0.0511	.42131	37 25 37	18.9167	.00000	.99992	38 12 49	57.1667	0.0000	.99997	39 1 67	110.7237	0.0000	.99999
35 46 23	.68187	0.0613	.309317	37 26 36	16.7576	.00000	.99978	38 13 487	53.3258	0.0000	.999977	39 2 59	105.34097	0.0000	.99999

(17)

TABLE E

U	V	W	X2	P(A)	CUM	P(E)	U	V	W	X2	P(A)	CUM	P(E)
37 27 35	14.7348	0.0001	.99941	38 14 47	49.6212	0.0000	.99999						
37 28 34	12.8485	0.0001	.99988	38 15 46	46.95307	0.0000	.99999						
37 29 33	11.9885	0.0003	.99829	38 16 45	42.62127	0.0000	.99999						
37 30 32	9.8848	0.0007	.99170	38 17 44	39.32587	0.0003	.99999						
37 31 31	8.0076	0.0015	.98291	38 18 43	36.1667	0.0000	.99999						
37 32 30	6.6667	0.0029	.96798	38 19 42	33.14397	0.0003	.99999						
37 33 29	5.6621	0.0053	.94290	38 20 41	30.25767	0.0000	.99999						
37 34 28	4.3939	0.0091	.90107	38 21 40	27.5076	0.0000	.99999						
37 35 27	3.6621	0.0146	.83635	38 22 39	24.8939	0.0000	.99999						
37 36 26	2.6667	0.0219	.75315	38 23 38	22.167	0.0000	.99998						
37 37 25	2.0076	0.0307	.68452	38 24 37	20.8758	0.0000	.99996						
37 38 24	1.8848	0.0464	.58006	38 25 36	17.8712	0.0000	.99989						
37 39 23	1.0985	0.0497	.43636	38 26 35	15.4030	0.0000	.99968						
37 40 227	.8485	0.0572	.35993	38 27 34	13.8712	0.0001	.99917						
37 41 21	.73487	0.0614	.303177	38 28 33	12.0758	0.0002	.99796						
37 42 20	.7576	0.0614	.29703	38 29 32	10.4167	0.0004	.99534						
37 43 197	.9167	0.0571	.35664	38 30 31	8.89397	0.0009	.98997						
37 44 16	1.2121	0.0493	.44426	38 31 30	7.50767	0.0019	.97967						
37 45 17	1.6439	0.0395	.56001	38 32 29	6.25767	0.0035	.963857						
37 46 167	2.2121	0.0292	.671527	38 33 28	5.14397	0.0061	.932247						
37 47 15	2.9167	0.0199	.776077	38 34 27	4.1667	0.0101	.89171						
37 48 14	3.7576	0.0124	.863097	38 35 26	3.32587	0.0155	.825977						
37 49 13	4.7348	0.0071	.92165	38 36 25	2.62127	0.0224	.74434						
37 50 127	5.8485	0.0037	.95907	38 37 24	2.05767	0.0363	.65368						
37 51 117	7.8985	0.0017	.98109	38 38 23	1.62127	0.0383	.57551						
37 52 107	8.8485	0.0007	.991637	38 39 22	1.32587	0.0452	.488107						
37 53 9	10.0076	0.0003											

TABLE E

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
42	22	35	21.4364	.00000	.99999	43	14	42	41.6667	.00000	.99999
42	23	34	19.0227	.01000	.99996	43	15	41	38.5530	.00000	.99999
42	24	33	17.0455	.02000	.99993	43	16	40	35.5758	.00000	.99999
42	25	32	15.2045	.03000	.99989	43	17	39	32.7348	.00000	.99999
42	26	31	13.5000	.04000	.99982	43	18	38	30.0303	.00000	.99999
42	27	30	11.9318	.05000	.99974	43	19	37	27.4621	.00000	.99999
42	28	29	10.5000	.06000	.99965	43	20	36	25.0030	.00000	.99999
42	29	28	9.2045	.07000	.99956	43	21	35	22.7348	.00000	.99999
42	30	27	8.0455	.08000	.99947	43	22	34	20.5758	.00000	.99999
42	31	26	7.0227	.09000	.99938	43	23	33	18.5530	.00000	.99999
42	32	25	6.1364	.10000	.99929	43	24	32	16.6667	.00000	.99987
42	33	24	5.3864	.11000	.99921	43	25	31	14.9167	.00000	.99966
42	34	23	4.7727	.12000	.99913	43	26	30	13.3030	.00001	.99920
42	35	22	4.2955	.13000	.99905	43	27	29	11.8258	.00002	.99869
42	36	21	3.9455	.14000	.99898	43	28	28	10.4848	.00004	.99805
42	37	20	3.7000	.15000	.99891	43	29	27	9.2803	.00007	.99728
42	38	19	3.6618	.16000	.99884	43	30	26	8.2121	.00012	.99649
42	39	18	3.7500	.17000	.99878	43	31	25	7.2803	.00021	.99574
42	40	17	3.9455	.18000	.99873	43	32	24	6.4848	.00033	.99507
42	41	16	4.2955	.19000	.99868	43	33	23	5.8258	.00047	.99437
42	42	15	4.7727	.20000	.99864	43	34	22	5.3030	.00064	.99376
42	43	14	5.3864	.21000	.99861	43	35	21	4.9167	.00081	.99323
42	44	13	6.1364	.22000	.99859	43	36	20	4.6667	.00094	.99279
42	45	12	7.0227	.23000	.99858	43	37	19	4.5530	.00102	.99245
42	46	11	8.0455	.24000	.99858	43	38	18	4.5758	.00102	.99211
42	47	10	9.2045	.25000	.99859	43	39	17	4.7348	.00094	.99186
42	48	9	10.5000	.26000	.99861	43	40	16	5.0303	.00089	.99163
42	49	8	11.9318	.27000	.99864	43	41	15	5.4621	.00082	.99141
42	50	7	13.5000	.28000	.99869	43	42	14	6.0303	.00074	.99120
42	51	6	15.2045	.29000	.99875	43	43	13	6.7348	.00069	.99100
42	52	5	17.0455	.30000	.99881	43	44	12	7.5758	.00067	.99084
42	53	4	19.0227	.31000	.99888	43	45	11	8.5530	.00061	.99069
42	54	3	21.4364	.32000	.99895	43	46	10	9.6667	.00054	.99059
42	55	2	24.3864	.33000	.99901	43	47	9	10.9167	.00047	.99052
42	56	1	27.7727	.34000	.99908	43	48	8	12.3030	.00041	.99046
42	57	0	31.2955	.35000	.99915	43	49	7	13.8258	.00036	.99041
43	0	56	99.5758	.00000	.99999	43	50	6	15.4848	.00031	.99036
43	1	55	94.5530	.00000	.99999	43	51	5	17.2803	.00027	.99032
43	2	54	89.6667	.00000	.99999	43	52	4	19.2121	.00024	.99029
43	3	53	84.9167	.00000	.99999	43	53	3	21.2803	.00021	.99027
43	4	52	80.3303	.00000	.99999	43	54	2	23.4848	.00018	.99026
43	5	51	75.8258	.00000	.99999	43	55	1	25.8258	.00015	.99026
43	6	50	71.4848	.00000	.99999	43	56	0	28.3030	.00012	.99028
43	7	49	67.2803	.00000	.99999	44	0	55	97.1667	.00000	.99999
43	8	48	63.2121	.00000	.99999	44	1	54	92.2348	.00000	.99999
43	9	47	59.2803	.00000	.99999	44	2	53	87.4394	.00000	.99999
43	10	46	53.4848	.00000	.99999	44	3	52	82.7803	.00000	.99999
43	11	45	47.8258	.00000	.99999	44	4	51	78.2576	.00000	.99999
43	12	44	42.3030	.00000	.99999	44	5	50	73.8712	.00000	.99999
43	13	43	36.9167	.00000	.99999	44	6	49	69.6212	.00000	.99999

(21)

TABLE E

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
44	7	48	65.5076	.00000	.99999	45	1	53	90.0682	.00000	.99999
44	8	47	61.3303	.00000	.99999	45	2	52	85.3636	.00000	.99999
44	9	46	57.6894	.00000	.99999	45	3	51	80.7955	.00000	.99999
44	10	45	53.9848	.00000	.99999	45	4	50	76.3636	.00000	.99999
44	11	44	50.4167	.00000	.99999	45	5	49	72.0682	.00000	.99999
44	12	43	46.9848	.00000	.99999	45	6	48	67.9091	.00000	.99999
44	13	42	43.6894	.00000	.99999	45	7	47	63.8864	.00000	.99999
44	14	41	40.5303	.00000	.99999	45	8	46	60.0000	.00000	.99999
44	15	40	37.5076	.00000	.99999	45	9	45	56.2500	.00000	.99999
44	16	39	34.6212	.00000	.99999	45	10	44	52.6364	.00000	.99999
44	17	38	31.8712	.00000	.99999	45	11	43	49.1591	.00000	.99999
44	18	37	29.2576	.00000	.99999	45	12	42	45.8162	.00000	.99999
44	19	36	26.7803	.00000	.99999	45	13	41	42.6136	.00000	.99999
44	20	35	24.4394	.00000	.99999	45	14	40	39.5455	.00000	.99999
44	21	34	22.2348	.00000	.99999	45	15	39	36.6136	.00000	.99999
44	22	33	20.1667	.00000	.99999	45	16	38	33.8162	.00000	.99999
44	23	32	18.2348	.00000	.99999	45	17	37	31.1591	.00000	.99999
44	24	31	16.4394	.00000	.99986	45	18	36	28.6364	.00000	.99999
44	25	30	14.7803	.00000	.99962	45	19	35	26.2500	.00000	.99999
44	26	29	13.2576	.00000	.99916	45	20	34	24.0000	.00000	.99999
44	27	28	11.8712	.00000	.99851	45	21	33	21.8864	.00000	.99999
44	28	27	10.6212	.00000	.99765	45	22	32	19.9091	.00000	.99998
44	29	26	9.5076	.00006	.99621	45	23	31	18.1662	.00000	.99994
44	30	25	8.5303	.00011	.99405	45	24	30	16.5636	.00000	.99985
44	31	24	7.6894	.00018	.99122	45	25	29	15.0955	.00000	.99963
44	32	23	6.9848	.00027	.98777	45	26	28	13.7636	.00000	.99930
44	33	22	6.4167	.00037	.98377	45	27	27	12.5682	.00000	.99883
44	34	21	5.9848	.00048	.97922	45	28	26	11.5091	.00000	.99823
44	35	20	5.6894	.00058	.97437	45	29	25	10.6664	.00000	.99746
44	36	19	5.5303	.00064	.96922	45	30	24	9.9000	.00000	.99654
44	37	18	5.5076	.00066	.96397	45	31	23	9.2500	.00014	.99438
44	38	17	5.6212	.00062	.95852	45	32	22	8.6364	.00020	.99196
44	39	16	5.8712	.00054	.95287	45	33	21	8.0591	.00027	.98957
44	40	15	6.2576	.00043	.94702	45	34	20	7.5162	.00034	.98732
44	41	14	6.7803	.00032	.94105	45	35	19	7.0136	.00040	.98518
44	42	13	7.4394	.00021	.93497	45	36	18	6.5455	.00041	.98311
44	43	12	8.2348	.00013	.92882	45	37	17	6.1364	.00039	.98111
44	44	11	9.1667	.00007	.92267	45	38	16	5.8162	.00035	.97920
44	45	10	10.2348	.00003	.91652	45	39	15	5.5000	.00029	.97746
44	46	9	11.4394	.00001	.91047	45	40	14	5.2500	.00022	.97581
44	47	8	12.7803	.00001	.90452	45	41	13	5.0591	.00015	.97426
44	48	7	14.2576	.00000	.90000	45	42	12	4.9000	.00009	.97281
44	49	6	15.8712	.00000	.99394	45	43	11	4.7664	.00005	.97146
44	50	5	17.6212	.00000	.98798	45	44	10	4.6500	.00003	.97023
44	51	4	19.5076	.00000	.98202	45	45	9	4.5682	.00001	.96911
44	52	3	21.5303	.00000	.97606	45	46	8	4.5091	.00000	.96811
44	53	2	23.6894	.00000	.97009	45	47	7	4.4636	.00000	.96721
44	54	1	25.9848	.00000	.96413	45	48	6	4.4300	.00000	.96641
44	55	0	28.4167	.00000	.95817	45	49	5	4.4000	.00000	.96569
45	0	54	34.9394	.00000	.95221	45	50	4	4.3750	.00000	.96506

(22)

TABLE E

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
46	46	7	15.4394	.00000	.99988	47	42	10	12.5758	.00001	.99866
46	47	6	16.9621	.00000	.99997	47	43	9	13.8439	.00001	.99937
46	48	5	18.6212	.00000	.99998	47	44	8	14.8485	.00000	.99975
46	49	4	20.4167	.00000	.99999	47	45	7	16.1894	.00000	.99991
46	50	3	22.3445	.00000	.99999	47	46	6	17.6667	.00000	.99997
46	51	2	24.4167	.00000	.99999	47	47	5	19.2803	.00000	.99999
46	52	1	26.6212	.00000	.99999	47	48	4	21.0303	.00000	.99999



TABLE E

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

J	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
43	37	13	12.5530	.00002	.99769	50	36	13	13.8939	.00001	.99868
43	38	12	15.1212	.00024	.99838	50	37	12	14.4167	.00001	.99907
43	39	11	15.8258	.00001	.99899	50	38	11	15.0758	.00001	.99943
43	40	10	15.6667	.00003	.99946	50	39	10	15.8712	.00000	.99967
43	41	9	15.6439	.00000	.99973	50	40	9	16.8030	.00000	.99984
43	42	8	15.7574	.00000	.99989	50	41	8	17.8712	.00000	.99993
43	43	7	16.0076	.00000	.99996	50	42	7	19.0758	.00000	.99997
43	44	6	19.3939	.00000	.99998	50	43	6	20.4167	.00000	.99998
43	45	5	20.9167	.00000	.99999	50	44	5	21.8939	.00000	.99999
43	46	4	22.5758	.00000	.99999	50	45	4	23.5076	.00000	.99999
43	47	3	24.3712	.00000	.99999	50	46	3	25.2576	.00000	.99999
43	48	2	25.3030	.00000	.99999	50	47	2	27.1439	.00000	.99999
43	49	1	28.3712	.00000	.99999	50	48	1	29.1667	.00000	.99999
43	50	0	30.5758	.00000	.99999	50	49	0	31.3258	.00000	.99999
43	49	85	89.39	.00000	.99999	51	0	88	84.5855	.00000	.99999
50	1	48	81.5076	.00000	.99999	51	1	47	80.2500	.00000	.99999
50	2	47	77.2576	.00000	.99999	51	2	46	76.0909	.00000	.99999
50	3	46	73.1439	.00000	.99999	51	3	45	72.0662	.00000	.99999
50	4	45	69.1867	.00000	.99999	51	4	44	68.1618	.00000	.99999
50	5	44	65.3258	.00000	.99999	51	5	43	64.3118	.00000	.99999
50	6	43	61.6212	.00000	.99999	51	6	42	60.4812	.00000	.99999
50	7	42	58.0530	.00000	.99999	51	7	41	57.3409	.00000	.99999
50	8	41	54.6212	.00000	.99999	51	8	40	54.0000	.00000	.99999
50	9	40	51.3258	.00000	.99999	51	9	39	50.7955	.00000	.99999
50	10	39	48.1667	.00000	.99999	51	10	38	47.7273	.00000	.99999
50	11	38	45.1439	.00000	.99999	51	11	37	44.7955	.00000	.99999
50	12	37	42.2576	.00000	.99999	51	12	36	42.0000	.00000	.99999
50	13	36	39.5076	.00000	.99999	51	13	35	39.3409	.00000	.99999
50	14	35	35.8539	.00000	.99999	51	14	34	36.8182	.00000	.99999
50	15	34	34.1667	.00000	.99999	51	15	33	34.4318	.00000	.99999
50	16	33	32.0758	.00000	.99999	51	16	32	32.1818	.00000	.99999
50	17	32	29.8712	.00000	.99999	51	17	31	30.0662	.00000	.99999
50	18	31	27.8030	.00000	.99999	51	18	30	28.0909	.00000	.99999
50	19	30	25.8712	.00000	.99999	51	19	29	26.2500	.00000	.99999
50	20	29	24.0758	.00000	.99999	51	20	28	24.5455	.00000	.99999
50	21	28	22.4167	.00000	.99999	51	21	27	22.9773	.00000	.99999
50	22	27	20.8939	.00000	.99999	51	22	26	21.5455	.00000	.99999
50	23	26	19.5076	.00000	.99999	51	23	25	20.2500	.00000	.99999
50	24	25	18.2576	.00000	.99999	51	24	24	19.0909	.00000	.99999
50	25	24	17.1439	.00000	.99999	51	25	23	18.0662	.00000	.99999
50	26	23	15.1567	.00000	.99999	51	26	22	17.1818	.00000	.99999
50	27	22	13.3258	.00000	.99999	51	27	21	16.4318	.00000	.99999
50	28	21	11.6212	.00000	.99999	51	28	20	15.8182	.00000	.99999
50	29	20	10.0530	.00000	.99999	51	29	19	15.3409	.00000	.99999
50	30	19	13.6212	.00000	.99999	51	30	18	15.0000	.00000	.99999
50	31	18	13.3258	.00000	.99999	51	31	17	14.7955	.00000	.99999
50	32	17	13.1667	.00000	.99999	51	32	16	14.7273	.00000	.99999
50	33	16	13.1439	.00000	.99999	51	33	15	14.7955	.00000	.99999
50	34	15	13.2576	.00000	.99999	51	34	14	15.0000	.00000	.99999
50	35	14	13.5076	.00000	.99999	51	35	13	15.3409	.00000	.99999

(25)

TABLE E

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
51	36	12	15.8182	.00000	.99951	52	37	10	16.5985	.00000	.99989
51	37	11	16.4318	.00000	.99967	52	38	9	19.4394	.00000	.99995
51	38	10	17.1818	.00000	.99982	52	39	8	20.4167	.00000	.99997
51	39	9	18.0682	.00000	.99990	52	40	7	21.5303	.00000	.99998
51	40	8	19.0909	.00000	.99996	52	41	6	22.7803	.00000	.99999
51	41	7	20.2500	.00000	.99998	52	42	5	24.1667	.00000	.99999
51	42	6	21.5455	.00000	.99999	52	43	4	25.6894	.00000	.99999
51	43	5	22.9773	.00000	.99999	52	44	3	27.3485	.00000	.99999
51	44	4	24.5455	.00000	.99999	52	45	2	29.1439	.00000	.99999
51	45	3	26.2500	.00000	.99999	52	46	1	31.0758	.00000	.99999
51	46	2	28.0909	.00000	.99999	52	47	0	33.1439	.00000	.99999
51	47	1	30.0682	.00000	.99999	52	48	0	35.3485	.00000	.99999
51	48	0	32.1818	.00000	.99999	52	49	0	37.5985	.00000	.99999
52	0	47	83.3485	.00000	.99999	53	2	44	74.2121	.00000	.99999
52	1	46	79.1439	.00000	.99999	53	3	43	70.3712	.00000	.99999
52	2	45	75.0758	.00000	.99999	53	4	42	66.1667	.00000	.99999
52	3	44	71.1439	.00000	.99999	53	5	41	63.0985	.00000	.99999
52	4	43	67.3485	.00000	.99999	53	6	40	59.6667	.00000	.99999
52	5	42	63.6894	.00000	.99999	53	7	39	56.3712	.00000	.99999
52	6	41	60.1667	.00000	.99999	53	8	38	53.2121	.00000	.99999
52	7	40	56.7803	.00000	.99999	53	9	37	50.1494	.00000	.99999
52	8	39	53.5303	.00000	.99999	53	10	36	47.3030	.00000	.99999
52	9	38	50.4167	.00000	.99999	53	11	35	44.5530	.00000	.99999
52	10	37	47.4394	.00000	.99999	53	12	34	41.9394	.00000	.99999
52	11	36	44.5985	.00000	.99999	53	13	33	39.4621	.00000	.99999
52	12	35	41.8939	.00000	.99999	53	14	32	37.1212	.00000	.99999
52	13	34	39.3258	.00000	.99999	53	15	31	34.9167	.00000	.99999
52	14	33	36.8939	.00000	.99999	53	16	30	32.8485	.00000	.99999
52	15	32	34.5985	.00000	.99999	53	17	29	30.9167	.00000	.99999
52	16	31	32.4394	.00000	.99999	53	18	28	29.1212	.00000	.99999
52	17	30	30.4167	.00000	.99999	53	19	27	27.4621	.00000	.99999
52	18	29	28.5303	.00000	.99999	53	20	26	25.9394	.00000	.99999
52	19	28	26.7803	.00000	.99999	53	21	25	24.5530	.00000	.99999
52	20	27	25.1667	.00000	.99999	53	22	24	23.3030	.00000	.99999
52	21	26	23.6894	.00000	.99999	53	23	23	22.1894	.00000	.99999
52	22	25	22.3485	.00000	.99999	53	24	22	21.2121	.00000	.99999
52	23	24	21.1439	.00000	.99999	53	25	21	20.3712	.00000	.99999
52	24	23	20.0758	.00000	.99999	53	26	20	19.6667	.00000	.99999
52	25	22	19.1439	.00000	.99999	53	27	19	19.0985	.00000	.99999
52	26	21	18.3485	.00000	.99999	53	28	18	18.6667	.00000	.99999
52	27	20	17.6894	.00000	.99999	53	29	17	18.3712	.00000	.99999
52	28	19	17.1667	.00000	.99999	53	30	16	18.2121	.00000	.99999
52	29	18	16.7803	.00000	.99999	53	31	15	18.1894	.00000	.99999
52	30	17	16.5303	.00000	.99999	53	32	14	18.3030	.00000	.99999
52	31	16	16.4167	.00000	.99999	53	33	13	18.5530	.00000	.99999
52	32	15	16.4394	.00000	.99999	53	34	12	18.9394	.00000	.99999
52	33	14	16.5985	.00000	.99999	53	35	11	19.4621	.00000	.99999
52	34	13	16.8939	.00000	.99999	53	36	10	20.1212	.00000	.99999
52	35	12	17.3258	.00000	.99999	53	37	9	20.9167	.00000	.99999
52	36	11	17.8939	.00000	.99999	53	38	8	21.8485	.00000	.99999

(26)

TABLE E

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

J	V	W	X2	P(A)	CUM P(E)
53	39	7	22.9167	.00000	.99999
53	40	6	24.1212	.00000	.99999
53	41	5	25.4621	.00000	.99999
53	42	4	26.9394	.00000	.99999
53	43	3	28.5530	.00000	.99999
53	44	2	30.3030	.00000	.99999
53	45	1	32.1894	.00000	.99999
53	46	0	34.2121	.00000	.99999
54	0	45	81.4891	.00000	.99999
54	1	44	77.3864	.00000	.99999
54	2	43	73.5000	.00000	.99999
54	3	42	69.7500	.00000	.99999
54	4	41	66.1364	.00000	.99999
54					

TABLE EXP  
CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
15	51	35	17.8939	0.0000	0.98324	15	16	68	123.8182	0.0000	0.98337
14	55	32	17.3258	0.0000	0.98320	15	17	67	118.4318	0.0000	0.98337
14	54	31	15.8939	0.0000	0.98316	15	18	66	113.1818	0.0000	0.98337
14	53	30	15.0985	0.0000	0.98313	15	19	65	108.0682	0.0000	0.98337
14	52	29	15.3494	0.0000	0.98311	15	20	64	103.0909	0.0000	0.98337
14	57	28	15.8167	0.0000	0.98310	15	21	63	98.2500	0.0000	0.98337
14	56	27	15.3383	0.0000	0.98312	15	22	62	93.5455	0.0000	0.98337
14	59	26	16.7803	0.0000	0.98315	15	23	61	88.9773	0.0000	0.98337
14	64	25	17.1667	0.0000	0.98319	15	24	60	84.5455	0.0000	0.98337
14	61	24	17.6894	0.0000	0.98323	15	25	59	80.2500	0.0000	0.98337
14	62	23	18.3485	0.0000	0.98327	15	26	58	76.0909	0.0000	0.98337
14	63	22	19.1439	0.0000	0.98330	15	27	57	72.0682	0.0000	0.98337
14	64	21	20.0758	0.0000	0.98333	15	28	56	68.1818	0.0000	0.98337
14	65	20	21.1439	0.0000	0.98334	15	29	55	64.4318	0.0000	0.98337
14	66	19	22.3485	0.0000	0.98336	15	30	54	60.8182	0.0000	0.98337
14	67	18	23.6894	0.0000	0.98336	15	31	53	57.3409	0.0000	0.98337
14	68	17	25.1667	0.0000	0.98337	15	32	52	54.0000	0.0000	0.98337
14	69	16	26.7803	0.0000	0.98337	15	33	51	50.7955	0.0000	0.98337
14	74	15	28.5303	0.0000	0.98337	15	34	50	47.7273	0.0000	0.98337
14	71	14	30.4167	0.0000	0.98337	15	35	49	44.7955	0.0000	0.98337
14	72	13	32.4394	0.0000	0.98337	15	36	48	42.0000	0.0000	0.98337
14	73	12	34.5985	0.0000	0.98337	15	37	47	39.3419	0.0000	0.98337
14	74	11	35.8939	0.0000	0.98337	15	38	46	36.8182	0.0000	0.98337
14	75	10	39.3258	0.0000	0.98337	15	39	45	34.4318	0.0000	0.98337
14	76	9	41.8939	0.0000	0.98337	15	40	44	32.1818	0.0000	0.98337
14	77	8	44.5985	0.0000	0.98337	15	41	43	30.0682	0.0000	0.98337
14	78	7	47.4394	0.0000	0.98337	15	42	42	28.0909	0.0000	0.98337
14	79	6	50.4167	0.0000	0.98337	15	43	41	26.2500	0.0000	0.98337
14	80	5	53.5303	0.0000	0.98337	15	44	40	24.5455	0.0000	0.98336
14	81	4	56.7803	0.0000	0.98337	15	45	39	22.9773	0.0000	0.98336
14	82	3	59.1667	0.0000	0.98337	15	46	38	21.5455	0.0000	0.98335
14	83	2	63.6894	0.0000	0.98337	15	47	37	20.2500	0.0000	0.98333
14	84	1	57.3485	0.0000	0.98337	15	48	36	19.0909	0.0000	0.98330
14	85	0	71.1439	0.0000	0.98337	15	49	35	18.0682	0.0000	0.98325
13	84	229	5.5455	0.0000	0.98337	15	50	34	17.1818	0.0000	0.98319
13	1	83	220.9773	0.0000	0.98337	15	51	33	16.4318	0.0000	0.98311
13	2	82	213.5455	0.0000	0.98337	15	52	32	15.8182	0.0000	0.98301
13	3	81	205.2500	0.0000	0.98337	15	53	31	15.3409	0.0000	0.98291
13	4	80	199.0909	0.0000	0.98337	15	54	30	15.0000	0.0000	0.98283
13	5	79	192.0582	0.0000	0.98337	15	55	29	14.7955	0.0000	0.98277
13	6	78	185.1818	0.0000	0.98337	15	56	28	14.7273	0.0000	0.98275
13	7	77	178.4318	0.0000	0.98337	15	57	27	14.7955	0.0000	0.98277
13	8	76	171.8182	0.0000	0.98337	15	58	26	15.0000	0.0000	0.98283
13	9	75	165.3409	0.0000	0.98337	15	59	25	15.3409	0.0000	0.98291
13	10	74	159.0909	0.0000	0.98337	15	60	24	15.8182	0.0000	0.98301
13	11	73	152.7955	0.0000	0.98337	15	61	23	16.4318	0.0000	0.98311
13	12	72	146.7273	0.0000	0.98337	15	62	22	17.1818	0.0000	0.98319
13	13	71	140.7955	0.0000	0.98337	15	63	21	18.0682	0.0000	0.98325
13	14	70	135.0000	0.0000	0.98337	15	64	20	19.0909	0.0000	0.98330
13	15	69	129.3409	0.0000	0.98337	15	65	19	20.2500	0.0000	0.98333

(1)

TABLE EXP

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
15	66	18	21.5455	0.0000	0.98335	16	31	52	53.5076	0.0000	0.98337
15	67	17	22.9773	0.0000	0.98336	16	32	51	50.2576	0.0000	0.98337
15	68	16	24.5455	0.0000	0.98336	16	33	50	47.1439	0.0000	0.98337
15	69	15	26.2500	0.0000	0.98337	16	34	49	44.1667	0.0000	0.98337
15	70	14	28.0909	0.0000	0.98337	16	35	48	41.3258	0.0000	0.98337
15	71	13	30.0682	0.0000	0.98337	16	36	47	38.6212	0.0000	0.98337
15	72	12	32.1818	0.0000	0.98337	16	37	46	36.0539	0.0000	0.98337
15	73	11	34.4318	0.0000	0.98337	16	38	45	33.6212	0.0000	0.98337
15	74	10	36.8182	0.0000	0.98337	16	39	44	31.3258	0.0000	0.98337
15	75	9	39.3409	0.0000	0.98337	16	40	43	29.1667	0.0000	0.98337
15	76	8	42.0000	0.0000	0.98337	16	41	42	27.1439	0.0000	0.98337
15	77	7	44.7955	0.0000	0.98337	16	42	41	25.2576	0.0000	0.98337
15	78	6	47.7273	0.0000	0.98337	16	43	40	23.5076	0.0000	0.98337
15	79	5	50.7955	0.0000	0.98337	16	44	39	21.8939	0.0000	0.98335
15	80	4	54.0000	0.0000	0.98337	16	45	38	20.4167	0.0000	0.98333
15	81	3	57.3409	0.0000	0.98337	16	46	37	19.0758	0.0000	0.98330
15	82	2	60.8182	0.0000	0.98337	16	47	36	17.8712	0.0000	0.98324
15	83	1	64.4318	0.0000	0.98337	16	48	35	16.8030	0.0000	0.98315
15	84	0	68.1818	0.0000	0.98337	16	49	34	15.8712	0.0000	0.98302
16	0	83	221.8939	0.0000	0.98337	16	50	33	15.0758	0.0000	0.98285
16	1	82	214.4167	0.0000	0.98337	16	51	32	14.4167	0.0000	0.98265
16	2	81	207.0758	0.0000	0.98337	16	52	31	13.8939	0.0000	0.98243
16	3	80	199.8712	0.0000	0.98337	16	53	30	13.5076	0.0000	0.98223
16	4	79	192.8030	0.0000	0.98337	16	54	29	13.2576	0.0000	0.98200
16	5	78	185.8712	0.0000	0.98337	16	55	28	13.1439	0.0000	0.98180
16	6	77	179.0758	0.0000	0.98337	16	56	27	13.1667	0.0000	0.98202
16	7	76	172.4167	0.0000	0.98337	16	57	26	13.3258	0.0000	0.98212
16	8	75	165.8939	0.0000	0.98337	16	58	25	13.6212	0.0000	0.98229
16	9	74	159.5076	0.0000	0.98337	16	59	24	14.0530	0.0000	0.98250
16	10	73	153.2576	0.0000	0.98337	16	60	23	14.6212	0.0000	0.98271
16	11	72	147.1439	0.0000	0.98337	16	61	22	15.3258	0.0000	0.98291
16	12	71	141.1667	0.0000	0.98337	16	62	21	16.1667	0.0000	0.98307
16	13	70	135.3258	0.0000	0.98337	16	63	20	17.1439	0.0000	0.98318
16	14	69	129.6212	0.0000	0.98337	16	64	19	18.2576	0.0000	0.98326
16	15	68	124.0330	0.0000	0.98337	16	65	18	19.5076	0.0000	0.98331
16	16	67	118.6212	0.0000	0.98337	16	66	17	20.8939	0.0000	0.98334
16	17	66	113.3258	0.0000	0.98337	16	67	16	22.4167	0.0000	0.98336
16	18	65	108.1667	0.0000	0.98337	16	68	15	24.0758	0.0000	0.98336
16	19	64	103.1439	0.0000	0.98337	16	69	14	25.8712	0.0000	0.98337
16	20	63	98.2576	0.0000	0.98337	16	70	13	27.8030	0.0000	0.98337
16	21	62	93.5076	0.0000	0.98337	16	71	12	29.8712	0.0000	0.98337
16	22	61	88.9339	0.0000	0.98337	16	72	11	32.0758	0.0000	0.98337
16	23	60	84.4167	0.0000	0.98337	16	73	10	34.4167	0.0000	0.98337
16	24	59	80.0758	0.0000	0.98337	16	74	9	36.8939	0.0000	0.98337
16	25	58	75.8712	0.0000	0.98337	16	75	8	39.5076	0.0000	0.98337
16	26	57	71.8030	0.0000	0.98337	16	76	7	42.2576	0.0000	0.98337
16	27	56	67.8712	0.0000	0.98337	16	77	6	45.1439	0.0000	0.98337
16	28	55	64.0758	0.0000	0.98337	16	78	5	48.1667	0.0000	0.98337
16	29	54	60.4167	0.0000	0.98337	16	79	4	51.3258	0.0000	0.98337
16	30	53	56.8939	0.0000	0.98337	16	80	3	54.6212	0.0000	0.98337

(2)

TABLE EXP  
CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
15	81	2	58.0530	0.0000							

TABLE EXP

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
19	32	48	39.9394	.00000	.98337	26	1	78	189.6894	.00000	.98337
19	33	47	37.9885	.00000	.98337	26	2	77	182.7121	.00000	.98337
19	34	46	34.3939	.00000	.98337	26	3	76	175.8712	.00000	.98337
19	35	45	31.8258	.00000	.98337	26	4	75	169.1667	.00000	.98337
19	36	44	29.3939	.00000	.98337	26	5	74	162.5985	.00000	.98337
19	37	43	27.0985	.00000	.98337	26	6	73	156.1667	.00000	.98337
19	38	42	24.9394	.00000	.98337	26	7	72	149.8712	.00000	.98337
19	39	41	22.9167	.00000	.98337	26	8	71	143.7121	.00000	.98337
19	40	40	21.0303	.00000	.98334	26	9	70	137.6894	.00000	.98337
19	41	39	19.2803	.00000	.98331	26	10	69	131.8030	.00000	.98337
19	42	38	17.6667	.00000	.98323	26	11	68	126.0530	.00000	.98337
19	43	37	16.1894	.00000	.98307	26	12	67	120.4394	.00000	.98337
19	44	36	14.8485	.00001	.98279	26	13	66	114.9621	.00000	.98337
19	45	35	13.6439	.00001	.98230	26	14	65	109.6212	.00000	.98337
19	46	34	12.5758	.00002	.98155	26	15	64	104.4167	.00000	.98337
19	47	33	11.6439	.00012	.98047	26	16	63	99.3485	.00000	.98337
19	48	32	10.8485	.00003	.97906	26	17	62	94.4167	.00000	.98337
19	49	31	10.1894	.00004	.97737	26	18	61	89.6212	.00000	.98337
19	50	30	9.6667	.00005	.97533	26	19	60	84.9621	.00000	.98337
19	51	29	9.2803	.00006	.97293	26	20	59	80.4394	.00000	.98337
19	52	28	8.9303	.00007	.97267	26	21	58	76.0530	.00000	.98337
19	53	27	8.6167	.00007	.97203	26	22	57	71.8030	.00000	.98337
19	54	26	8.3394	.00007	.97216	26	23	56	67.6894	.00000	.98337
19	55	25	8.0985	.00007	.97303	26	24	55	63.7121	.00000	.98337
19	56	24	7.8939	.00006	.97446	26	25	54	59.8712	.00000	.98337
19	57	23	7.7258	.00005	.97619	26	26	53	56.1667	.00000	.98337
19	58	22	7.5939	.00004	.97796	26	27	52	52.5985	.00000	.98337
19	59	21	7.4985	.00003	.97957	26	28	51	49.1667	.00000	.98337
19	60	20	7.4394	.00002	.98084	26	29	50	45.8712	.00000	.98337
19	61	19	7.4167	.00001	.98184	26	30	49	42.7121	.00000	.98337
19	62	18	7.4303	.00001	.98249	26	31	48	39.6894	.00000	.98337
19	63	17	7.4803	.00000	.98290	26	32	47	36.8030	.00000	.98337
19	64	16	7.5667	.00000	.98313	26	33	46	34.0530	.00000	.98337
19	65	15	7.6894	.00000	.98326	26	34	45	31.4394	.00000	.98337
19	66	14	7.8485	.00000	.98332	26	35	44	28.9621	.00000	.98337
19	67	13	8.0439	.00000	.98335	26	36	43	26.6212	.00000	.98337
19	68	12	8.2578	.00000	.98336	26	37	42	24.4167	.00000	.98336
19	69	11	8.4939	.00000	.98337	26	38	41	22.3485	.00000	.98336
19	70	10	8.7485	.00000	.98337	26	39	40	20.4167	.00000	.98333
19	71	9	9.01894	.00000	.98337	26	40	39	18.6212	.00000	.98328
19	72	8	9.3067	.00000	.98337	26	41	38	16.9621	.00000	.98317
19	73	7	9.60803	.00000	.98337	26	42	37	15.4394	.00001	.98294
19	74	6	9.92303	.00000	.98337	26	43	36	14.0530	.00001	.98250
19	75	5	10.25167	.00000	.98337	26	44	35	12.8030	.00002	.98175
19	76	4	10.59394	.00000	.98337	26	45	34	11.6894	.00003	.98084
19	77	3	10.9485	.00000	.98337	26	46	33	10.7121	.00004	.98076
19	78	2	11.31939	.00000	.98337	26	47	32	9.9712	.00006	.97635
19	79	1	11.70258	.00000	.98337	26	48	31	9.3467	.00008	.97338
19	80	0	12.0939	.00000	.98337	26	49	30	8.8258	.00010	.97000
20	0	79	199.8530	.00000	.98337	26	50	29	8.4167	.00011	.96666

(5)

TABLE EXP

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
20	51	28	7.8712	.00013	.96425	21	21	57	72.0682	.00000	.98337
20	52	27	7.7121	.00014	.96266	21	22	56	67.9091	.00000	.98337
20	53	26	7.56894	.00014	.96242	21	23	55	63.8864	.00000	.98337
20	54	25	7.4330	.00014	.96358	21	24	54	60.0000	.00000	.98337
20	55	24	7.30530	.00013	.96592	21	25	53	56.2500	.00000	.98337
20	56	23	7.1894	.00011	.96897	21	26	52	52.6364	.00000	.98337
20	57	22	7.0821	.00009	.97229	21	27	51	49.1591	.00000	.98337
20	58	21	6.98212	.00007	.97542	21	28	50	45.8162	.00000	.98337
20	59	20	6.8894	.00005	.97802	21	29	49	42.6136	.00000	.98337
20	60	19	6.8030	.00003	.98001	21	30	48	39.5455	.00000	.98337
20	61	18	6.7212	.00002	.98140	21	31	47	36.6136	.00000	.98337
20	62	17	6.64394	.00001	.98229	21	32	46	33.8162	.00000	.98337
20	63	16	6.5712	.00001	.98282	21	33	45	31.1591	.00000	.98337
20	64	15	6.5030	.00000	.98311	21	34	44	28.6364	.00000	.98337
20	65	14	6.4394	.00000	.98325	21	35	43	26.2500	.00000	.98337
20	66	13	6.38030	.00000	.98332	21	36	42	24.0000	.00000	.98336
20	67	12	6.3258	.00000	.98335	21	37	41	21.8864	.00000	.98335
20	68	11	6.27439	.00000	.98336	21	38	40	19.9091	.00000	.98332
20	69	10	6.2258	.00000	.98337	21	39	39	18.0682	.00000	.98325
20	70	9	6.18030	.00000	.98337	21	40	38	16.3636	.00001	.98310
20	71	8	6.1367	.00000	.98337	21	41	37	14.7955	.00001	.98277
20	72	7	6.09485	.00000	.98337	21	42	36	13.3636	.00002	.98214
20	73	6	6.0530	.00000	.98337	21	43	35	12.0682	.00003	.98103
20	74	5	6.0121	.00000	.98337	21	44	34	10.9091	.00004	.97919
20	75	4	5.9712	.00000	.98337	21	45	33	9.8864	.00007	.97640
20	76	3	5.93030	.00000	.98337	21	46	32	8.90000	.00010	.97250
20	77	2	5.8894	.00000	.98337	21	47	31	8.05000	.00013	.96756
20	78	1	5.8485	.00000	.98337	21	48	30	7.3364	.00017	.96185
20	79	0	5.8076	.00000	.98337	21	49	29	6.7591	.00020	.95632
20	80	0	5.7667	.00000	.98337	21	50	28	6.2864	.00024	.95092
21	1	77	183.8864	.00000	.98337	21	51	27	5.9136	.00026	.94741
21	2	76	177.0000	.00000	.98337	21	52	26	5.5455	.00027	.94614
21	3	75	170.2500	.00000	.98337	21	53	25	5.2500	.00027	.94741
21	4	74	163.6364	.00000	.98337	21	54	24	5.0000	.00025	.95192
21	5	73	157.1591	.00000	.98337	21	55	23	4.7591	.00021	.95632
21	6	72	150.8182	.00000	.98337	21	56	22	4.5364	.00018	.96185
21	7	71	144.6136	.00000	.98337	21	57	21	4.3250	.00014	.96756
21	8	70	138.5455	.00000	.98337	21	58	20	4.12500	.00010	.97250
21	9	69	132.6136	.00000	.98337	21	59	19	3.9364	.00007	.97640
21	10	68	126.8182	.00000	.98337	21	60	18	3.7591	.00004	.97919
21	11	67	121.1591	.00000	.98337	21	61	17	3.5912	.00002	.98174
21	12	66	115.6364	.00000	.98337	21	62	16	3.4364	.00001	.98213
21	13	65	110.2500	.00000	.98337	21	63	15	3.2955	.00001	.98277
21	14	64	105.0000	.00000	.98337	21	64	14	3.1636	.00000	.98330
21	15	63	99.8864	.00000	.98337	21	65	13	3.0482	.00000	.98325
21	16	62	94.9091	.00000	.98337	21	66	12	2.9409	.00000	.98332
21	17	61	90.1250	.00000	.98337	21	67	11	2.84864	.00000	.98335
21	18	60	85.5364	.00000	.98337	21	68	10	2.76000	.00000	.98336
21	19	59	81.1591	.00000	.98337	21	69	9	2.67500	.00000	.98337
21	20	58	76.9864	.00000	.98337	21	70	8	2.60364	.00000	.98337

(6)

TABLE EXP

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
21	71	7	31.1591	.00000	.98337	22	42	35	11.4394	.00004	.98016
21	72	6	30.8182	.00000	.98337	22	43	34	10.2348	.00007	.97715
21	73	5	30.6136	.00000	.98337	22	44	33	9.1667	.00010	.97338
21	74	4	29.5455	.00000	.98337	22	45	32	8.2348	.00015	.96744
21	75	3	29.5130	.00000	.98337	22	46	31	7.4394	.00021	.95961
21	76	2	29.8182	.00000	.98337	22	47	30	6.7803	.00027	.95029
21	77	1	29.1591	.00000							

TABLE EXP

CHI SQUARE - P(0(1/3), P1(4/9), P2(2/9)) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
23	37	58	13.2045	0.0001	.982887	25	11	63	103.0985	0.0000	.98337
23	37	37	13.5000	0.0002	.98222	25	12	62	97.9394	0.0000	.98337
23	39	36	11.9318	0.0004	.98086	25	13	61	92.9167	0.0000	.98337
23	40	35	10.5000	0.0007	.97824	25	14	60	88.0303	0.0000	.98337
23	41	34	9.2045	0.0012	.97357	25	15	59	83.2803	0.0000	.98337
23	42	33	8.0435	0.0020	.96585	25	16	58	78.6667	0.0000	.98337
23	43	32	7.0227	0.0035	.95487	25	17	57	74.1894	0.0000	.98337
23	44	31	6.1364	0.0047	.93777	25	18	56	69.8485	0.0000	.98337
23	45	30	5.38647	0.0067	.91698	25	19	55	65.6439	0.0000	.98337
23	46	29	4.77277	0.00797	.89304	25	20	54	61.5758	0.0000	.98337
23	47	28	4.29557	0.00977	.86876	25	21	53	57.6439	0.0000	.98337
23	48	27	3.95457	0.0113	.84752	25	22	52	53.8485	0.0000	.98337
23	49	26	3.75007	0.0125	.83284	25	23	51	50.1894	0.0000	.98337
23	50	25	3.64167	0.0130	.82756	25	24	50	46.6667	0.0000	.98337
23	51	24	3.75000	0.0127	.83284	25	25	49	43.2803	0.0000	.98337
23	52	23	3.95457	0.0117	.84752	25	26	48	40.0303	0.0000	.98337
23	53	22	4.29557	0.0102	.86876	25	27	47	36.9167	0.0000	.98337
23	54	21	4.77277	0.0083	.89304	25	28	46	33.9394	0.0000	.98337
23	55	20	5.38647	0.0063	.91698	25	29	45	31.0985	0.0000	.98337
23	56	19	6.13647	0.0045	.93777	25	30	44	28.3939	0.0000	.98337
23	57	18	7.02277	0.0030	.95487	25	31	43	25.8258	0.0000	.98337
23	58	17	8.04355	0.0019	.96585	25	32	42	23.3939	0.0000	.98337
23	59	16	9.20455	0.00117	.97357	25	33	41	21.0985	0.0000	.98337
23	60	15	10.5000	0.00067	.97824	25	34	40	18.9394	0.0000	.98337
23	61	14	11.9318	0.0003	.98086	25	35	39	16.9167	0.0001	.98337
23	62	13	13.5000	0.00017	.98222	25	36	38	15.0303	0.0001	.98284
23	63	12	15.2045	0.0001	.98288	25	37	37	13.2803	0.0002	.98209
23	64	11	17.0455	0.0000	.98318	25	38	36	11.6667	0.0005	.98050
23	65	10	19.0227	0.0000	.98330	25	39	35	10.1894	0.0009	.97737
23	66	9	21.13647	0.0000	.98334	25	40	34	8.8485	0.0015	.97164
23	67	8	23.3864	0.0000	.98336	25	41	33	7.6439	0.0025	.96194
23	68	7	25.77277	0.0000	.98337	25	42	32	6.5758	0.0039	.94671
23	69	6	28.29557	0.0000	.98337	25	43	31	5.6439	0.0058	.92502
23	70	5	30.9545	0.0000	.98337	25	44	30	4.8485	0.0081	.89643
23	71	4	33.75007	0.0000	.98337	25	45	29	4.1894	0.0109	.86257
23	72	3	36.68167	0.0000	.98337	25	46	28	3.6667	0.0137	.82636
23	73	2	39.75007	0.0000	.98337	25	47	27	3.2803	0.0163	.79308
23	74	1	42.95457	0.0000	.98337	25	48	26	3.0303	0.0183	.76161
23	75	0	46.29557	0.0000	.98337	25	49	25	2.9167	0.0195	.75489
23	0	74	169.8485	0.0000	.98337	25	50	24	2.9394	0.0195	.75751
23	1	73	162.18947	0.0000	.98337	25	51	23	3.0985	0.0183	.77491
23	2	72	155.66677	0.0000	.98337	25	52	22	3.3939	0.0162	.80367
23	3	71	149.28037	0.0000	.98337	25	53	21	3.8258	0.0135	.83845
23	4	70	143.03037	0.0000	.98337	25	54	20	4.3939	0.0105	.87429
23	5	69	137.0457	0.0000	.98337	25	55	19	5.0985	0.0076	.90668
23	6	68	131.303947	0.0000	.98337	25	56	18	5.9394	0.0052	.93303
23	7	67	125.9857	0.0000	.98337	25	57	17	6.9167	0.0033	.95247
23	8	66	121.119397	0.0000	.98337	25	58	16	8.0303	0.0019	.96572
23	9	65	116.732547	0.0000	.98337	25	59	15	9.2833	0.0010	.97393
23	10	64	112.89397	0.0000	.98337	25	60	14	10.6667	0.0005	.97865

(9)

TABLE EXP

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
25	61	13	12.1894	0.0002	.98117	26	36	37	13.1667	0.0003	.98282
25	62	12	11.8485	0.0001	.98241	26	37	36	11.5076	0.0005	.98427
25	63	11	11.6439	0.0000	.98298	26	38	35	9.9444	0.0010	.97674
25	64	10	11.5758	0.0000	.98322	26	39	34	8.5985	0.0019	.97088
25	65	9	11.6439	0.0000	.98332	26	40	33	7.3485	0.0029	.95851
25	66	8	11.8485	0.0000	.98335	26	41	32	6.2348	0.0047	.93995
25	67	7	12.1894	0.0000	.98336	26	42	31	5.2576	0.0072	.91256
25	68	6	12.6667	0.0000	.98337	26	43	30	4.4167	0.0103	.87554
25	69	5	12.92803	0.0000	.98337	26	44	29	3.7121	0.0141	.82993
25	70	4	13.20303	0.0000	.98337	26	45	28	3.1439	0.0182	.77963
25	71	3	13.49167	0.0000	.98337	26	46	27	2.7121	0.02217	.73023
25	72	2	13.79394	0.0000	.98337	26	47	26	2.4167	0.02547	.690147
25	73	1	14.10985	0.0000	.98337	26	48	25	2.2576	0.02757	.65653
25	74	0	14.44393	0.0000	.98337	26	49	24	2.2348	0.02817	.628157
26	0	73	163.7121	0.0000	.98337	26	50	23	2.3485	0.02707	.601987
26	1	72	157.1439	0.0000	.98337	26	51	22	2.5985	0.0243	.57532
26	2	71	150.7121	0.0000	.98337	26	52	21	2.9848	0.0206	.548227
26	3	70	144.4167	0.0000	.98337	26	53	20	3.5076	0.0163	.52165
26	4	69	138.2576	0.0000	.98337	26	54	19	4.1667	0.0121	.49517
26	5	68	132.2348	0.0000	.98337	26	55	18	4.9621	0.0083	.469125
26	6	67	126.3485	0.0000	.98337	26	56	17	5.9394	0.0054	.44318
26	7	66	120.5985	0.0000	.98337	26	57	16	7.0621	0.0032	.41717
26	8	65	114.9848	0.0000	.98337	26	58	15	8.3667	0.0018	.391467
26	9	64	109.5076	0.0000	.98337	26	59	14	9.8485	0.0009	.366487
26	10	63	104.1667	0.0000	.98337	26	60	13	11.4985	0.0004	.342157
26	11	62	98.9621	0.0000	.98337	26	61	12	13.2985	0.0002	.31857
26	12	61	93.8939	0.0000	.98337	26	62	11	15.2485	0.0001	.295227
26	13	60	88.9621	0.0000	.98337	26	63	10	17.3485	0.0000	.272157
26	14	59	84.1667	0.0000	.98337	26	64	9	19.5985	0.0000	.249227
26	15	58	79.5076	0.0000	.98337	26	65	8	22.0167	0.0000	.226487
26	16	57	74.9848	0.0000	.98337	26	66	7	24.6167	0.0000	.203857
26	17	56	70.5985	0.0000	.98337	26	67	6	27.3985	0.0000	.181327
26	18	55	66.3485	0.0000	.98337	26	68	5	30.3485	0.0000	.158857
26	19	54	62.2348	0.0000	.98337	26	69	4	33.4667	0.0000	.136427
26	20	53	58.2576	0.0000	.98337	26	70	3	36.7576	0.0000	.114027
26	21	52	54.4167	0.0000	.98337	26	71	2	40.2348	0.0000	.98337
26	22	51	50.7121	0.0000	.98337	26	72	1	43.9485	0.0000	.98337
26	23	50	47.1439	0.0000	.98337	26	73	0	47.9848	0.0000	.98337
26	24	49	43.7121	0.0000	.98337	27	0	72	158.7273	0.0000	.98337
26	25	48	40.4167	0.0000	.98337	27	1	71	152.2500	0.0000	.98337
26	26	47	37.2576	0.0000	.98337	27	2	70	145.9091	0.0000	.98337
26	27	46	34.2348	0.0000	.98337	27	3	69	139.7045	0.0000	.98337
26	28	45	31.3485	0.0000	.98337	27	4	68	133.6364	0.0000	.98337
26	29	44	28.5985	0.0000	.98337	27	5	67	127.7045	0.0000	.98337
26	30	43	25.9848	0.0000	.98337	27	6	66	121.9091	0.0000	.98337
26	31	42	23.5076	0.0000	.98337	27	7	65	116.2500	0.0000	.98337
26	32	41	21.1667	0.0000	.98337	27	8	64	110.7273	0.0000	.98337
26	33	40	18.9621	0.0000	.98329	27	9	63	105.3409	0.0000	.98337
26	34	39	16.939	0.0001	.98316	27	10	62	100.0909	0.0000	.98337
26	35	38	14.9621	0.0001	.98282	27	11	61	94.9773	0.0000	.98337

(10)

TABLE EXP

CHI SQUARE - P(0(1/3), P1(4/9), P2(2/9)) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
27	12	60	90.0000	0.0000	.98337	27	62	10	15.0000	0.0000	.98283
27	13	59	85.1591	0.0000	.98337	27	63	9	16.9773	0.0000	.98317
27	14	58	80.4545	0.0000	.98337	27	64	8	19.0909	0.0000	.98357
27	15	57	75.8864	0.0000	.98337	27	65	7	21.3409	0.0000	

TABLE EXP

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
29	67	3	28.9167	.00003	.98337	30	46	23	.4091	.0717	.18257
29	68	2	31.7576	.00003	.98337	30	47	22	.4773	.0070	.226952
29	69	1	34.7348	.00003	.98337	30	46	21	.6818	.0064	.28516
29	70	1	37.8485	.00003	.98337	30	49	23	1.0227	.0055	.39524
30	0	69	144.0818	.00000	.98337	30	50	19	1.5090	.0041	.52025
30	1	68	138.4773	.00000	.98337	30	51	18	2.1136	.0032	.64208
30	2	67	132.4091	.00000	.98337	30	52	17	2.8636	.0027	.74873
30	3	66	126.4773	.00000	.98337	30	53	16	3.7500	.0014	.83284
30	4	65	120.6818	.00000	.98337	30	54	15	4.7727	.0006	.89304
30	5	64	115.0227	.00003	.98337	30	55	14	5.9318	.0004	.93263
30	6	63	109.5300	.00000	.98337	30	56	13	7.2273	.0002	.95694
30	7	62	104.1136	.00003	.98337	30	57	12	8.6591	.0001	.97048
30	8	61	98.8636	.00000	.98337	30	58	11	10.2273	.0000	.97749
30	9	60	93.7500	.00000	.98337	30	59	11	11.9318	.0000	.98086
30	10	59	88.7727	.00000	.98337	30	60	9	13.7727	.0001	.98337
30	11	58	83.9318	.00000	.98337	30	61	8	15.7500	.0000	.98300
30	12	57	79.2273	.00000	.98337	30	62	7	17.8636	.0000	.98324
30	13	56	74.6591	.00000	.98337	30	63	6	20.1136	.0000	.98333
30	14	55	70.2273	.00000	.98337	30	64	5	22.5000	.0000	.98336
30	15	54	65.9318	.00000	.98337	30	65	4	25.9227	.0000	.98337
30	16	53	61.7727	.00000	.98337	30	66	3	27.6818	.0000	.98337
30	17	52	57.7500	.00000	.98337	30	67	2	30.4773	.0000	.98337
30	18	51	53.8636	.00000	.98337	30	68	1	33.4091	.0000	.98337
30	19	50	50.1136	.00000	.98337	30	69	0	36.4773	.0000	.98337
30	20	49	46.5000	.00000	.98337	30	0	68	140.3030	.0000	.98337
30	21	48	43.0227	.00000	.98337	31	1	67	134.1894	.0000	.98337
30	22	47	39.6818	.00000	.98337	31	2	66	128.2121	.0000	.98337
30	23	46	36.4773	.00000	.98337	31	3	65	122.3712	.0000	.98337
30	24	45	33.4091	.00000	.98337	31	4	64	116.5667	.0000	.98337
30	25	44	30.4773	.00000	.98337	31	5	63	111.0985	.0000	.98337
30	26	43	27.6818	.00000	.98337	31	6	62	105.6667	.0000	.98337
30	27	42	25.0227	.00000	.98337	31	7	61	100.3712	.0000	.98337
30	28	41	22.5000	.00000	.98336	31	8	60	95.2121	.0000	.98337
30	29	40	20.1136	.00000	.98333	31	9	59	90.1894	.0000	.98337
30	30	39	17.8636	.00000	.98324	31	10	58	85.3030	.0000	.98337
30	31	38	15.7500	.00000	.98300	31	11	57	80.5530	.0000	.98337
30	32	37	13.7727	.00002	.98237	31	12	56	75.9394	.0000	.98337
30	33	36	11.9318	.00004	.98086	31	13	55	71.4621	.0000	.98337
30	34	35	10.2273	.00008	.97749	31	14	54	67.1212	.0000	.98337
30	35	34	8.6591	.00016	.97048	31	15	53	62.9167	.0000	.98337
30	36	33	7.2273	.00031	.95694	31	16	52	58.8485	.0000	.98337
30	37	32	5.9318	.00055	.93283	31	17	51	54.9167	.0000	.98337
30	38	31	4.7727	.00093	.89304	31	18	50	51.1212	.0000	.98337
30	39	30	3.7500	.00147	.83284	31	19	49	47.4621	.0000	.98337
30	40	29	2.8636	.00221	.74873	31	20	48	43.9394	.0000	.98337
30	41	28	2.1136	.00312	.64208	31	21	47	40.5530	.0000	.98337
30	42	27	1.5000	.00417	.52025	31	22	46	37.3030	.0000	.98337
30	43	26	1.0227	.00523	.39524	31	23	45	34.1894	.0000	.98337
30	44	25	.6818	.00618	.28516	31	24	44	31.2121	.0000	.98337
30	45	24	.4773	.00687	.20552	31	25	43	28.3712	.00000	.98337

(13)

TABLE EXP

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
31	26	42	25.6667	.00000	.98337	32	7	60	96.7803	.00000	.98337
31	27	41	23.0985	.00000	.98336	32	8	59	91.7121	.00000	.98337
31	28	40	20.6667	.00000	.98334	32	9	58	86.7803	.00000	.98337
31	29	39	18.3712	.00000	.98327	32	10	57	81.9848	.00000	.98337
31	30	38	16.2121	.00001	.98307	32	11	56	77.3258	.00000	.98337
31	31	37	14.1894	.00001	.98256	32	12	55	72.8030	.00000	.98337
31	32	36	12.3030	.00003	.98129	32	13	54	68.4167	.00000	.98337
31	33	35	10.5530	.00007	.97838	32	14	53	64.1667	.00000	.98337
31	34	34	8.9394	.00014	.97216	32	15	52	60.0530	.00000	.98337
31	35	33	7.4621	.00027	.95988	32	16	51	56.0758	.00000	.98337
31	36	32	6.1212	.00049	.93742	32	17	50	52.2348	.00000	.98337
31	37	31	4.9167	.00085	.89934	32	18	49	48.5303	.00000	.98337
31	38	30	3.8485	.00139	.84011	32	19	48	44.9621	.00000	.98337
31	39	29	2.9167	.00214	.75489	32	20	47	41.5303	.00000	.98337
31	40	28	2.1212	.00310	.64339	32	21	46	38.2348	.00000	.98337
31	41	27	1.4621	.00423	.51126	32	22	45	35.0758	.00000	.98337
31	42	26	.9394	.00544	.37004	32	23	44	32.0530	.00000	.98337
31	43	25	.5530	.00658	.23847	32	24	43	29.1667	.00000	.98337
31	44	24	.3030	.00748	.13882	32	25	42	26.4167	.00000	.98337
31	45	23	.1894	.00798	.08895	32	26	41	23.8030	.00000	.98336
31	46	22	.1212	.00798	.09917	32	27	40	21.3258	.00000	.98335
31	47	21	.7312	.00747	.16713	32	28	39	18.9848	.00000	.98330
31	48	20	.6667	.00653	.27977	32	29	38	16.7803	.00000	.98337
31	49	19	1.0985	.00533	.41718	32	30	37	14.7121	.00001	.98274
31	50	18	1.6667	.00405	.55747	32	31	36	12.7803	.00002	.98173
31	51	17	2.3712	.00286	.68335	32	32	35	10.9848	.00005	.97935
31	52	16	3.2121	.00187	.78647	32	33	34	9.3258	.00011	.97415
31	53	15	4.1894	.00113	.86257	32	34	33	7.8030	.00022	.96358
31	54	14	5.3030	.00063	.91416	32	35	32	6.4167	.00042	.94366
31	55	13	6.5530	.00032	.94629	32	36	31	5.1667	.00074	.90928
31	56	12	7.9394	.00015	.96489	32	37	30	4.0530	.00124	.85401
31	57	11	9.4621	.00006	.97476	32	38	29	3.0758	.00195	.77249
31	58	10	11.1212	.00002	.97961	32	39	28	2.2348	.00291	.66215
31	59	9	12.9167	.00001	.98164	32	40	27	1.5303	.00407	.52732
31	60	8	14.8485	.00000	.98279	32	41	26	.9621	.00536	.37777
31	61	7	16.9167	.00000	.98316	32	42	25	.5333	.00663	.22986
31	62	6	19.1212	.00000	.98330	32	43	24	.2348	.00771	.10927
31	63	5	21.4621	.00000	.98330	32	44	23	.7358	.00841	.03679
31	64	4	23.9394	.00000	.98336	32	45	22	.0530	.00860	.02582
31	65	3	26.5530	.00000	.98337	32	46	21	.1667	.00823	.07861
31	66	2	29.3030	.00000	.98337	32	47	20	.4167	.00735	.18565
31	67	1	32.1894	.00000	.98337	32	48	19	.8030	.00613	.32651
31	68	0	35.1212	.00000	.98337	32	49	18	1.3258	.00475	.47844
32	0	67	136.0758	.00000	.98337	32	50	17	1.9848	.00342	.61924
32	1	66	130.0530	.00000	.98337	32	51	16	2.7830	.00228	.73877
32	2	65	124.1667	.00000	.98337	32	52	15	3.7121	.00142	.82993
32	3	64	118.4167	.00000	.98337	32	53	14	4.7830	.00079	.89339
32	4	63	112.8030	.00000	.98337	32	54	13	5.9848	.00041	.93417
32	5	62	107.3258	.00000	.98337	32	55	12	7.3258	.00019	.95822
32	6	61	101.9648	.00000	.98337	32	56	11	8.8030	.00008	.97136

(14)

TABLE EXP

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
33	57	10	16.4167	.00003	.97862	33	39	27	1.7045	.00370	.56555
33	58	9	12.1667	.00001	.98114	33	40	26	1.0909	.00499	.41506
33	59	8	14.3530	.00000	.98258	33	41	25	.5136	.00633	.26077
33	60	7	16.4758	.00000	.98306	33	42	24	.2727	.00754	.12580
33	61	6	18.2348	.00000	.98326	33	43	23	.0682	.00841	.03314
33	62	5	20.5303	.00000	.98334	33	44	22	0.0000	.00880	.00000
33	63	4	22.9621	.00000	.98336	33	45	21	.6136	.00860	.03314
33	64	3	25.5303	.00000	.98337						

TABLE EXP

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
35	56	6	12.3030	.00001	.98129	36	41	22	.4773	.00688	.20952	37	27	35	14.7348	.00001	.98275	38	14	47	49.6212	.00000	.98337
35	57	7	14.1894	.00000	.98256	36	42	21	.4091	.00721	.18257	37	28	34	12.8485	.00001	.98179	38	15	46	46.0530	.00000	.98337
35	58	6	16.2121	.00000	.98307	36	43	20	.4773	.00704	.20952	37	29	33	11.0985	.00003	.97957	38	16	43	42.6212	.00000	.98337
35	59	5	18.3712	.00000	.98327	36	44	19	.6818	.00640	.28516	37	30	32	9.4848	.00007	.97486	38	17	44	39.3258	.00000	.98337
35	60	4	21.6667	.00000	.98334	36	45	18	1.0227	.00541	.39524	37	31	31	8.0076	.00015	.96551	38	18	43	36.1667	.00000	.98337
35	61	3	23.0985	.00000	.98336	36	46	17	1.5000	.00423	.52225	37	32	30	6.6667	.00029	.94835	38	19	42	33.1439	.00000	.98337
35	62	2	25.6667	.00000	.98337	36	47	16	2.1136	.00306	.64208	37	33	29	5.4621	.00053	.91945	38	20	41	30.2576	.00000	.98337
35	63	1	28.3712	.00000	.98337	35	48	15	2.8636	.00200	.74873	37	34	28	4.3939	.00091	.87429	38	21	40	27.5676	.00000	.98337
35	64	0	31.2121	.00000	.98337	36	49	14	3.7500	.00125	.83284	37	35	27	3.4621	.00146	.80971	38	22	39	24.8939	.00000	.98337
35	65	0	34.0985	.00000	.98337	36	50	13	4.7727	.00070	.89304	37	36	26	2.6667	.00219	.72436	38	23	38	22.4167	.00000	.98337
35	1	62	115.9227	.00000	.98337	36	51	12	5.9318	.00036	.93283	37	37	25	2.0076	.00307	.62341	38	24	37	20.0758	.00000	.98337
35	2	61	109.5000	.00000	.98337	36	52	11	7.2273	.00016	.95694	37	38	24	1.4848	.00404	.51667	38	25	36	17.8712	.00000	.98337
35	3	60	104.1136	.00000	.98337	36	53	10	8.6591	.00007	.97048	37	39	23	1.0085	.00497	.41718	38	26	35	15.8030	.00000	.98337
35	4	59	98.8636	.00000	.98337	36	54	9	10.2273	.00003	.97749	37	40	22	.8485	.00572	.34138	38	27	34	13.8712	.00001	.98242
35	5	58	93.7500	.00000	.98337	36	55	8	11.9318	.00001	.98086	37	41	21	.7348	.00614	.30352	38	28	33	12.0758	.00000	.98104
35	6	57	88.7727	.00000	.98337	36	56	7	13.7727	.00000	.98237	37	42	20	.7576	.00614	.31130	38	29	32	10.4167	.00000	.98337
35	7	56	83.9318	.00000	.98337	36	57	6	15.7500	.00000	.98300	37	43	19	.9167	.00571	.36294	38	30	31	8.8939	.00009	.97190
35	8	55	79.2273	.00000	.98337	36	58	5	17.8636	.00000	.98324	37	44	18	1.2121	.00493	.44875	38	31	30	7.5676	.00019	.96042
35	9	54	74.6591	.00000	.98337	36	59	4	20.1136	.00000	.98333	37	45	17	1.6439	.00395	.55253	38	32	29	6.2576	.00035	.94045
35	10	53	70.2273	.00000	.98337	36	60	3	22.5000	.00000	.98336	37	46	16	2.2121	.00292	.65843	38	33	28	5.1439	.00061	.90842
35	11	52	65.9318	.00000	.98337	36	61	2	25.0227	.00000	.98337	37	47	15	2.9167	.00199	.75489	38	34	27	4.1667	.00101	.86117
35	12	51	61.7727	.00000	.98337	36	62	1	27.6818	.00000	.98337	37	48	14	3.7576	.00124	.83342	38	35	25	3.3258	.00155	.79739
35	13	50	57.7500	.00000	.98337	36	63	0	30.4773	.00000	.98337	37	49	13	4.7348	.00071	.89130	38	36	25	2.6212	.00224	.71838
35	14	49	53.8636	.00000	.98337	37	0	62	117.2121	.00000	.98337	37	50	12	5.8485	.00037	.93466	38	37	24	2.0530	.00303	.63155
35	15	48	50.1136	.00000	.98337	37	1	61	111.6439	.00000	.98337	37	51	11	7.9985	.00017	.95518	38	38	23	1.6212	.00383	.54753
35	16	47	45.5000	.00000	.98337	37	2	60	106.2121	.00000	.98337	37	52	10	8.8448	.00007	.96930	38	39	22	1.3258	.00452	.47844
35	17	46	43.0227	.00000	.98337	37	3	59	100.9167	.00000	.98337	37	53	9	10.0076	.00003	.97662	38	40	21	1.1667	.00497	.43635
35	18	45	39.6818	.00000	.98337	37	4	58	95.7576	.00000	.98337	37	54	8	11.6667	.00001	.98500	38	41	20	1.1439	.00509	.43001
35	19	44	36.4773	.00000	.98337	37	5	57	90.7348	.00000	.98337	37	55	7	13.4621	.00000	.98220	38	42	19	1.2576	.00500	.46387
35	20	43	33.4091	.00000	.98337	37	6	56	85.8485	.00000	.98337	37	56	6	15.3939	.00000	.98293	38	43	18	1.5076	.00428	.52203
35	21	42	30.4773	.00000	.98337	37	7	55	81.0985	.00000	.98337	37	57	5	17.4621	.00000	.98321	38	44	17	1.8939	.00350	.50228
35	22	41	27.6818	.00000	.98337	37	8	54	76.4848	.00000	.98337	37	58	4	19.6667	.00000	.98332	38	45	16	2.4167	.00265	.69014
35	23	40	25.0227	.00000	.98337	37	9	53	72.0076	.00000	.98337	37	59	3	22.0076	.00000	.98335	38	46	15	3.7576	.00184	.77249
35	24	39	22.5000	.00000	.98336	37	10	52	67.6667	.00000	.98337	37	60	2	24.8448	.00000	.98336	38	47	14	3.8712	.00116	.84175
35	25	38	20.1136	.00000	.98333	37	11	51	63.4621	.00000	.98337	37	61	1	27.0985	.00000	.98337	38	48	13	4.8030	.00069	.89441
35	26	37	17.8636	.00000	.98324	37	12	50	59.3939	.00000	.98337	37	62	0	29.8485	.00000	.98337	38	49	12	5.8712	.00036	.93126
35	27	36	15.7500	.00000	.98300	37	13	49	55.4621	.00000	.98337	38	0	61	113.8939	.00000	.98337	38	50	11	7.0758	.00017	.95485
35	28	35	13.7727	.00001	.98237	37	14	48	51.6667	.00000	.98337	38	1	60	108.4167	.00000	.98337	38	51	10	8.4167	.00000	.96880
35	29	34	11.9318	.00002	.98086	37	15	47	48.0076	.00000	.98337	38	2	59	103.0758	.00000	.98337	38	52	9	9.8939	.00003	.97543
35	30	33	10.2273	.00005	.97749	37	16	46	44.4848	.00000	.98337	38	3	58	97.8712	.00000	.98337	38	53	8	11.5076	.00001	.98027
35	31	32	8.6591	.00012	.97048	37	17	45	41.0985	.00000	.98337	38	4	57	92.8230	.00000	.98337	38	54	7	13.2576	.00000	.98208
35	32	31	7.2273	.00023	.95694	37	18	44	37.8485	.00000	.98337	38	5	56	87.8712	.00000	.98337	38	55	6	15.1439	.00000	.98267
35	33	30	5.9318	.00044	.93283	37	19	43	34.7348	.00000	.98337	38	6	55	83.0758	.00000	.98337	38	56	5	17.1667	.00000	.98319
35	34	29	4.7727	.00077	.89304	37	20	42	31.7576	.00000	.98337	38	7	54	78.4167	.00000	.98337	38	57	4	19.3258	.00000	.98331
35	35	28	3.7500	.00128	.83284	37	21	41	28.9167	.00000	.98337	38	8	53	73.8939	.00000	.98337	38	58	3	21.6212	.00000	.98335
35	36	27	2.8636	.00200	.74873	37	22	40	26.2121	.00000	.98337	38	9	52	69.5076	.00000	.98337	38	59	2	24.0530	.00000	.98336
35	37	26	2.1136	.00291	.64208	37	23	39	23.6439	.00000	.98336	38	10	51	65.2576	.00000	.98337	38	60	1	26.6212	.00000	.98337
35	38	25	1.5000	.00399	.52225	37	24	38	21.2121	.00000	.98335	38	11	50	61.1439	.00000	.98337	38	61	0	29.3258	.00000	.98337
35	39	24	1.0227	.00511	.39524	37	25	37	18.9167	.00000	.98329	38	12	49	57.1667	.00000	.98337	39	0	60	110.7273	.00000	.98337
35	40	23	.6818	.00613	.28516	37	26	36	16.7576	.00000	.98314	38	13	48	53.3258	.00000	.98337	39	1	59	105.3869	.00000	.98337

(17)

(18)

TABLE EXP

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
39	2	58	100.0909	.00000	.98337	39	52	8	11.4545	.00001	.98018	40	41	18	2.4167	.00279	.69014	41	31	27	6.9167	.00024	.95247
39	3	57	94.9773	.00000	.98337	39	53	7	13.1591	.00000	.98201	40	42	17	2.7121	.00239	.73023	41	32	26	5.9394	.00040	.93303
39	4	56	90.0000	.00000	.98337	39	54	6	15.0000	.00000	.98283	40	43	16	3.1439	.00189	.77963	41	33	25	5.0985	.00063	.91668
39	5	55	85.1591	.00000	.98337	39	55	5	16.9773	.00000	.98317	40	44	15	3.7121	.00137	.82993	41	34	24	4.3939	.00093	.87429
39	6	54	80.4545	.00000	.98337	39	56	4	19.0909	.00000	.98330	40	45	14	4.4167	.00092	.87554	41	35	23			

TABLE EXP  
CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
42	22	35	21.1364	.00000	.98334	43	14	42	41.6667	.00000	.98337
42	23	34	19.0227	.00000	.98330	43	15	41	38.5530	.00000	.98337
42	24	33	17.0455	.00000	.98318	43	16	40	35.5758	.00000	.98337
42	25	32	15.2045	.00000	.98288	43	17	39	32.7348	.00000	.98337
42	26	31	13.5000	.00001	.98222	43	18	38	30.0303	.00000	.98337
42	27	30	11.9318	.00002	.98086	43	19	37	27.4621	.00000	.98337
42	28	29	10.5000	.00004	.97824	43	20	36	25.0303	.00000	.98337
42	29	28	9.2045	.00007	.97357	43	21	35	22.7348	.00000	.98336
42	30	27	8.0455	.00013	.96585	43	22	34	20.5758	.00000	.98334
42	31	26	7.0227	.00023	.95408	43	23	33	18.5530	.00000	.98328
42	32	25	6.1364	.00037	.93777	43	24	32	16.6667	.00000	.98313
42	33	24	5.3864	.00057	.91698	43	25	31	14.9167	.00000	.98281
42	34	23	4.7727	.00080	.89304	43	26	30	13.3030	.00001	.98211
42	35	22	4.2955	.00105	.86876	43	27	29	11.8258	.00002	.98072
42	36	21	3.9545	.00128	.84752	43	28	28	10.4848	.00004	.97820
42	37	20	3.7500	.00146	.82884	43	29	27	9.2803	.00007	.97393
42	38	19	3.6818	.00153	.81256	43	30	26	8.2121	.00012	.96725
42	39	18	3.7500	.00149	.82884	43	31	25	7.2853	.00021	.95764
42	40	17	3.9545	.00134	.84752	43	32	24	6.4848	.00033	.94500
42	41	16	4.2955	.00112	.86876	43	33	23	5.8258	.00047	.93005
42	42	15	4.7727	.00085	.89304	43	34	22	5.3030	.00064	.91416
42	43	14	5.3864	.00059	.91698	43	35	21	4.9167	.00081	.89934
42	44	13	6.1364	.00038	.93777	43	36	20	4.6667	.00094	.88810
42	45	12	7.0227	.00022	.95408	43	37	19	4.5530	.00102	.88254
42	46	11	8.0455	.00011	.96585	43	38	18	4.5758	.00102	.88369
42	47	10	9.2045	.00005	.97357	43	39	17	4.7348	.00094	.89130
42	48	9	10.5000	.00002	.97824	43	40	16	5.0303	.00080	.90402
42	49	8	11.9318	.00001	.98086	43	41	15	5.4621	.00062	.91945
42	50	7	13.5000	.00000	.98222	43	42	14	6.0303	.00044	.93529
42	51	6	15.2045	.00000	.98288	43	43	13	6.7348	.00029	.94953
42	52	5	17.0455	.00000	.98318	43	44	12	7.5758	.00017	.96119
42	53	4	19.0227	.00000	.98330	43	45	11	8.5530	.00009	.96977
42	54	3	21.1364	.00000	.98334	43	46	10	9.6667	.00004	.97560
42	55	2	23.3864	.00000	.98336	43	47	9	10.9167	.00002	.97921
42	56	1	25.7727	.00000	.98337	43	48	8	12.3030	.00001	.98129
42	57	0	28.2955	.00000	.98337	43	49	7	13.8258	.00000	.98240
43	0	56	99.5758	.00000	.98337	43	50	6	15.4848	.00000	.98295
43	1	55	94.5530	.00000	.98337	43	51	5	17.2803	.00000	.98330
43	2	54	89.6667	.00000	.98337	43	52	4	19.2121	.00000	.98335
43	3	53	84.9167	.00000	.98337	43	53	3	21.2803	.00000	.98335
43	4	52	80.3030	.00000	.98337	43	54	2	23.4848	.00000	.98336
43	5	51	75.8258	.00000	.98337	43	55	1	25.8258	.00000	.98337
43	6	50	71.4848	.00000	.98337	43	56	0	28.3030	.00000	.98337
43	7	49	67.2803	.00000	.98337	44	0	55	97.1667	.00000	.98337
43	8	48	63.2121	.00000	.98337	44	1	54	92.2348	.00000	.98337
43	9	47	59.2803	.00000	.98337	44	2	53	87.4394	.00000	.98337
43	10	46	55.4848	.00000	.98337	44	3	52	82.7803	.00000	.98337
43	11	45	51.8258	.00000	.98337	44	4	51	78.2576	.00000	.98337
43	12	44	48.3030	.00000	.98337	44	5	50	73.8712	.00000	.98337
43	13	43	44.9167	.00000	.98337	44	6	49	69.6212	.00000	.98337

(21)

TABLE EXP

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
44	7	48	65.5076	.00000	.98337	45	1	53	90.0682	.00000	.98337
44	8	47	61.5303	.00000	.98337	45	2	52	85.3636	.00000	.98337
44	9	46	57.6894	.00000	.98337	45	3	51	80.7955	.00000	.98337
44	10	45	53.9848	.00000	.98337	45	4	50	76.3636	.00000	.98337
44	11	44	50.4167	.00000	.98337	45	5	49	72.0682	.00000	.98337
44	12	43	46.9848	.00000	.98337	45	6	48	67.9091	.00000	.98337
44	13	42	43.6894	.00000	.98337	45	7	47	63.8864	.00000	.98337
44	14	41	40.5303	.00000	.98337	45	8	46	60.0000	.00000	.98337
44	15	40	37.5076	.00000	.98337	45	9	45	56.2500	.00000	.98337
44	16	39	34.6212	.00000	.98337	45	10	44	52.6364	.00000	.98337
44	17	38	31.8712	.00000	.98337	45	11	43	49.1591	.00000	.98337
44	18	37	29.2576	.00000	.98337	45	12	42	45.8182	.00000	.98337
44	19	36	26.7803	.00000	.98337	45	13	41	42.6136	.00000	.98337
44	20	35	24.4394	.00000	.98336	45	14	40	39.5455	.00000	.98337
44	21	34	22.2348	.00000	.98336	45	15	39	36.6136	.00000	.98337
44	22	33	20.1667	.00000	.98333	45	16	38	33.8182	.00000	.98337
44	23	32	18.2348	.00000	.98326	45	17	37	31.1591	.00000	.98337
44	24	31	16.4394	.00000	.98311	45	18	36	28.6364	.00000	.98337
44	25	30	14.7803	.00000	.98277	45	19	35	26.2500	.00000	.98337
44	26	29	13.2576	.00001	.98208	45	20	34	24.0000	.00000	.98336
44	27	28	11.8712	.00002	.98078	45	21	33	21.8864	.00000	.98335
44	28	27	10.6212	.00003	.97854	45	22	32	19.9091	.00000	.98332
44	29	26	9.5076	.00006	.97496	45	23	31	18.0682	.00000	.98325
44	30	25	8.5303	.00011	.96961	45	24	30	16.3636	.00000	.98310
44	31	24	7.6894	.00018	.96242	45	25	29	14.7955	.00000	.98277
44	32	23	6.9848	.00027	.95351	45	26	28	13.3636	.00001	.98214
44	33	22	6.4167	.00037	.94366	45	27	27	12.0682	.00002	.98103
44	34	21	5.9848	.00048	.93417	45	28	26	10.9091	.00003	.97919
44	35	20	5.6894	.00058	.92634	45	29	25	9.8864	.00006	.97640
44	36	19	5.5303	.00064	.92161	45	30	24	9.0000	.00009	.97250
44	37	18	5.5076	.00066	.92049	45	31	23	8.2500	.00014	.96756
44	38	17	5.6212	.00062	.92435	45	32	22	7.6364	.00020	.96185
44	39	16	5.8712	.00054	.93126	45	33	21	7.1591	.00027	.95602
44	40	15	6.2576	.00043	.94045	45	34	20	6.8182	.00034	.95092
44	41	14	6.7803	.00032	.95029	45	35	19	6.6136	.00038	.94741
44	42	13	7.4394	.00021	.95961	45	36	18	6.5455	.00041	.94614
44	43	12	8.2348	.00013	.96744	45	37	17	6.6136	.00039	.94741
44	44	11	9.1667	.00007	.97358	45	38	16	6.8182	.00035	.95092
44	45	10	10.2348	.00003	.97751	45	39	15	7.1591	.00029	.95602
44	46	9	11.4394	.00001	.98016	45	40	14	7.6364	.00022	.96185
44	47	8	12.7803	.00001	.98173	45	41	13	8.2500	.00015	.96756
44	48	7	14.2576	.00000	.98259	45	42	12	9.0000	.00009	.97250
44	49	6	15.8712	.00000	.98302	45	43	11	9.8864	.00005	.97640
44	50	5	17.6212	.00000	.98322	45	44	10	10.9091	.00003	.97919
44	51	4	19.5076	.00000	.98331	45	45	9	12.0682	.00001	.98103
44	52	3	21.5303	.00000	.98335	45	46	8	13.3636	.00000	.98214
44	53	2	23.6894	.00000	.98336	45	47	7	14.7955	.00000	.98277
44	54	1	25.9848	.00000	.98337	45	48	6	16.3636	.00000	.98310
44	55	0	28.4167	.00000	.98337	45	49	5	18.0682	.00000	.98325
45	0	54	99.9091	.00000	.98337	45	50	4	19.9091	.00000	.98332

(22)

TABLE EXP  
CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
45	51	3	21.8864	.00000	.98335	46	46	7	15.4394	.00000	.98294
45	52	2	24.0000	.00000	.98336	46	47	6	16.9621	.00000	.98317
45	53	1	26.2500	.00000	.98337	46	48	5	18.6212	.00000	.98328
45	54	0	28.6364	.00000	.98337	46	49	4	20.4167	.00000	.98333
45	0	53	92.8930	.00000	.98337	46	50	3	22.3485	.00000	.98336
45	1	52	88.0530	.00000	.98337	46	51	2	24.4167	.00000	.98336
45	2	51	83.4394	.00000	.98337	46	52	1	26.6212	.00000	.98337
45											

TABLE EXP

TABLE EXP

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
49	37	13	12.5530	.00002	.98153	50	36	13	13.8939	.00001	.98243	51	36	12	15.8182	.00000	.98301	52	37	10	18.5985	.00000	.98328
49	38	12	13.1212	.00002	.98198	50	37	12	14.4167	.00001	.98265	51	37	11	16.4318	.00000	.98311	52	38	9	19.4394	.00000	.98331
49	39	11	13.8258	.00001	.98240	50	38	11	15.0758	.00001	.98285	51	38	10	17.1818	.00000	.98319	52	39	8	20.4167	.00000	.98333
49	40	10	14.6667	.00001	.98273	50	39	10	15.8712	.00000	.98302	51	39	9	18.0682	.00000	.98325	52	40	7	21.5303	.00000	.98335
49	41	9	15.6439	.00000	.98298	50	40	9	16.8030	.00000	.98315	51	40	8	19.0909	.00000	.98330	52	41	6	22.7803	.00000	.98336
49	42	8	16.7576	.00000	.98314	50	41	8	17.8712	.00000	.98324	51	41	7	20.2500	.00000	.98333	52	42	5	24.1667	.00000	.98336
49	43	7	18.0076	.00000	.98325	50	42	7	19.0758	.00000	.98330	51	42	6	21.5455	.00000	.98335	52	43	4	25.6894	.00000	.98337
49	44	6	19.3939	.00000	.98331	50	43	6	20.4167	.00000	.98333	51	43	5	22.9773	.00000	.98336	52	44	3	27.3485	.00000	.98337
49	45	5	20.9167	.00000	.98334	50	44	5	21.8939	.00000	.98335	51	44	4	24.5455	.00000	.98336	52	45	2	29.1439	.00000	.98337
49	46	4	22.5758	.00000	.98336	50	45	4	23.5076	.00000	.98336	51	45	3	26.2500	.00000	.98337	52	46	1	31.0758	.00000	.98337
49	47	3	24.3712	.00000	.98336	50	46	3	25.2576	.00000	.98337	51	46	2	28.0909	.00000	.98337	52	47	0	33.1439	.00000	.98337
49	48	2	25.3030	.00000	.98337	50	47	2	27.1439	.00000	.98337	51	47	1	30.0682	.00000	.98337	53	0	46	82.3030	.00000	.98337
49	49	1	28.3712	.00000	.98337	50	48	1	29.1667	.00000	.98337	51	48	0	32.1818	.00000	.98337	53	1	45	78.1894	.00000	.98337
49	50	0	30.5758	.00000	.98337	50	49	0	31.3258	.00000	.98337	52	0	47	83.3485	.00000	.98337	53	2	44	74.2121	.00000	.98337
50	0	49	85.8939	.00000	.98337	51	0	48	84.5455	.00000	.98337	52	1	46	79.1439	.00000	.98337	53	3	43	70.3712	.00000	.98337
50	1	48	81.5076	.00000	.98337	51	1	47	81.2500	.00000	.98337	52	2	45	75.0758	.00000	.98337	53	4	42	66.6667	.00000	.98337
50	2	47	77.2576	.00000	.98337	51	2	46	78.0909	.00000	.98337	52	3	44	71.1439	.00000	.98337	53	5	41	63.0985	.00000	.98337
50	3	46	73.1439	.00000	.98337	51	3	45	72.0682	.00000	.98337	52	4	43	67.3485	.00000	.98337	53	6	40	59.6667	.00000	.98337
50	4	45	69.1667	.00000	.98337	51	4	44	68.1818	.00000	.98337	52	5	42	63.6894	.00000	.98337	53	7	39	56.3712	.00000	.98337
50	5	44	65.3258	.00000	.98337	51	5	43	64.4318	.00000	.98337	52	6	41	60.1667	.00000	.98337	53	8	38	53.2121	.00000	.98337
50	6	43	61.6212	.00000	.98337	51	6	42	60.8182	.00000	.98337	52	7	40	56.7803	.00000	.98337	53	9	37	50.1894	.00000	.98337
50	7	42	58.0530	.00000	.98337	51	7	41	57.3409	.00000	.98337	52	8	39	53.5303	.00000	.98337	53	10	36	47.3030	.00000	.98337
50	8	41	54.6212	.00000	.98337	51	8	40	54.0000	.00000	.98337	52	9	38	50.4167	.00000	.98337	53	11	35	44.5530	.00000	.98337
50	9	40	51.3258	.00000	.98337	51	9	39	50.7955	.00000	.98337	52	10	37	47.4394	.00000	.98337	53	12	34	41.9394	.00000	.98337
50	10	39	48.1667	.00000	.98337	51	10	38	47.7273	.00000	.98337	52	11	36	44.5985	.00000	.98337	53	13	33	39.4621	.00000	.98337
50	11	38	45.1439	.00000	.98337	51	11	37	44.7955	.00000	.98337	52	12	35	41.8939	.00000	.98337	53	14	32	37.1212	.00000	.98337
50	12	37	42.2576	.00000	.98337	51	12	36	42.0000	.00000	.98337	52	13	34	39.3258	.00000	.98337	53	15	31	34.9167	.00000	.98337
50	13	36	39.5076	.00000	.98337	51	13	35	39.3409	.00000	.98337	52	14	33	36.8939	.00000	.98337	53	16	30	32.8485	.00000	.98337
50	14	35	36.8939	.00000	.98337	51	14	34	36.8182	.00000	.98337	52	15	32	34.5985	.00000	.98337	53	17	29	30.9167	.00000	.98337
50	15	34	34.4167	.00000	.98337	51	15	33	34.4318	.00000	.98337	52	16	31	32.4394	.00000	.98337	53	18	28	29.1212	.00000	.98337
50	16	33	32.0758	.00000	.98337	51	16	32	32.1818	.00000	.98337	52	17	30	30.4167	.00000	.98337	53	19	27	27.4621	.00000	.98337
50	17	32	29.8712	.00000	.98337	51	17	31	30.0682	.00000	.98337	52	18	29	28.5303	.00000	.98337	53	20	26	25.9394	.00000	.98337
50	18	31	27.8030	.00000	.98337	51	18	30	28.0909	.00000	.98337	52	19	28	26.7803	.00000	.98337	53	21	25	24.5530	.00000	.98336
50	19	30	25.8712	.00000	.98337	51	19	29	26.2500	.00000	.98337	52	20	27	25.1667	.00000	.98337	53	22	24	23.3030	.00000	.98336
50	20	29	24.0758	.00000	.98336	51	20	28	24.5455	.00000	.98336	52	21	26	23.6894	.00000	.98336	53	23	23	22.1894	.00000	.98335
50	21	28	22.4167	.00000	.98336	51	21	27	22.9773	.00000	.98336	52	22	25	22.3485	.00000	.98336	53	24	22	21.2121	.00000	.98335
50	22	27	20.8939	.00000	.98334	51	22	26	21.5455	.00000	.98335	52	23	24	21.1439	.00000	.98334	53	25	21	20.3712	.00000	.98333
50	23	26	19.5076	.00000	.98331	51	23	25	20.2500	.00000	.98333	52	24	23	20.0758	.00000	.98333	53	26	20	19.6667	.00000	.98332
50	24	25	18.2576	.00000	.98326	51	24	24	19.0909	.00000	.98330	52	25	22	19.1439	.00000	.98330	53	27	19	19.0985	.00000	.98330
50	25	24	17.1439	.00000	.98318	51	25	23	18.0682	.00000	.98325	52	26	21	18.3485	.00000	.98327	53	28	18	18.6667	.00000	.98328
50	26	23	16.1667	.00000	.98307	51	26	22	17.1818	.00000	.98319	52	27	20	17.6894	.00000	.98323	53	29	17	18.3712	.00000	.98327
50	27	22	15.3258	.00000	.98291	51	27	21	16.4318	.00000	.98311	52	28	19	17.1667	.00000	.98319	53	30	16	18.2121	.00000	.98326
50	28	21	14.6212	.00001	.98271	51	28	20	15.8182	.00000	.98301	52	29	18	16.7803	.00000	.98315	53	31	15	18.1894	.00000	.98326
50	29	20	14.0530	.00001	.98250	51	29	19	15.3409	.00001	.98291	52	30	17	16.5303	.00000	.98312	53	32	14	18.3030	.00000	.98327
50	30	19	13.6212	.00001	.98229	51	30	18	15.0000	.00001	.98283	52	31	16	16.4167	.00000	.98310	53	33	13	18.5530	.00000	.98328
50	31	18	13.3258	.00002	.98212	51	31	17	14.7955	.00001	.98277	52	32	15	16.4394	.00000	.98311	53	34	12	18.9394	.00000	.98329
50	32	17	13.1667	.00002	.98202	51	32	16	14.7273	.00001	.98275	52	33	14	16.5985	.00000	.98313	53	35	11	19.4621	.00000	.98331
50	33	16	13.1439	.00002	.98200	51	33	15	14.7955	.00001	.98277	52	34	13	16.8939	.00000	.98316	53	36	10	20.1212	.00000	.98333
50	34	15	13.2576	.00002	.98208	51	34	14	15.0000	.00001	.98283	52	35	12	17.3258	.00000	.98320	53	37	9	20.9167	.00000	.98334
50	35	14	13.5076	.00002	.98223	51	35	13	15.3409	.00001	.98291	52	36	11	17.8939	.00000	.98324	53	38	8	21.8485	.00000	.98335

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(26)

TABLE EXP

CHI SQUARE - P(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
53	39	7	22.9167	.00000	.98336	54	0	45	81.4091	.00000	.98337	55	0	44	77.3864	.00000	.98337	56	0	43	73.5000	.00000	.98337
53	40	6	24.1212	.00000	.98336	54	1	44	77.3864	.00000	.98337	55	1	43	69.7500	.00000	.98337	56	1	42	66.0000	.00000	.98337
53	41	5	25.4621	.00000	.98337	54	2	43	73.5000	.00000	.98337	55	2	42	63.1364	.00000	.98337	56	2	41	60.3939	.00000	.98337
53	42	4	26.9394	.00000	.98337	54	3	42	69.7500	.00000	.98337	55	3	41	58.6591	.00000	.98337	56	3	40	56.6591	.00000	.98337
53	43	3	28.5530	.00000	.98337	54	4	41	65.1364														