

«Yahtzee» for the Commodore 64 (Complete type-in listing in BASIC V2)



YAHTZEE



WELCOME TO YAHTZEE

F1 1 PLAYER
F3 2 PLAYER
F5 3 PLAYER
F7 4 PLAYER


PIP COLOR



YAHTZEE

ONES	3
TWO	9
THREE	11
FOUR	18
FIVE	10
SIX	52
SUBTOTAL	217
63+ BONUS	28
3 OF A KIND	0
4 OF A KIND	25
FULL HOUSE	25
SMALL STRAIGHT	30
LONG STRAIGHT	40
YAHTZEE	50
CHANCE	
TOTAL	217


A-M = SCORE CATEG 1 2 3 4 5 SPACE = ROLL AGAIN



YAHTZEE

	PL1	PL2	PL3	PL4
ONES				
TWO				
THREE				
FOUR				10
FIVE			24	10
SIX				
SUBTOTAL	0	0	24	10
63+ BONUS				
3 OF A KIND		25		
4 OF A KIND				
FULL HOUSE				
SMALL STRAIGHT				
LONG STRAIGHT				
YAHTZEE	50			
CHANCE				
TOTAL	50	25	24	10

A-M = SCORE CATEG 1 2 3 4 5 SPACE = ROLL AGAIN



**An exclusive 2020 Give-Away by
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Thanks! for following me on Twitter

!- Note: Curly brackets {} represent special screen code characters (BASTEXT PETSCII Tokens)
!- For BASTEXT reference see: https://www.c64-wiki.com/wiki/PETSCII_Codes_in_Listings
!- For checksum tool see : <https://www.c64-wiki.com/wiki/F64Summer>

```
CSUM
1242 10 rem *****
03FC 20 rem *** yahtzee ***
4B59 30 rem *** (c) 2020 by @romwer ***
9474 40 rem *** roman.werner@gmail.com ***
4319 50 rem *****
39AF 60 rem
C797 70 rem *****
E89E 80 rem *** initialize variables ***
8042 90 rem *****
B5B8 100 dimc(15,3):dimp$(17)
5BE7 110 d$="{home}{down*23}":r$="{down}{left*5}":b$="{space*5}"+r$:t$="playerround "
88DE 120 l$="{reverse on}{space*3}{reverse off}"+r$:m$="{white}{light green}"
D95D 130 dc$="{white}#$$$"+r$+l$+l$+"()")*{left*4}{up*3}{black}{reverse on}"
4CDB 140 dc$(1)="{down}{right}!":dc$(2)="{space*2}!{down*2}{left*3}!":dc$(3)="{down*2}!{up}!{up}!"
1D74 150 dc$(4)="! !{down*2}{left*3}! !":dc$(5)="! !{down}{left*2}!{down}{left*2}! !"
D0BB 160 dc$(6)="! !{down}{left*3}! !{down}{left*3}! !"
0879 170 rem *****
F6F8 180 rem *** initialize environment (chars and sprites) ***
EF93 190 rem *****
C22B 200 print"{clear}tab(14)"{black}please wait":v=53248:s=54272
4989 210 pokev+21,0:pokev+32,5:pokev+33,5:pokev+34,2:pokev+35,1:pokev+36,0
FA0C 220 fori=stos+24:pokei,0:next:pokes+8,6:pokes+15,4:pokes+24,15
1A14 230 gosub1730:pokev+24,peek(v+24)and240or14:pokev+17,peek(v+17)or64::gosub2030
5511 240 rem *****
57DF 250 rem *** show title screen ***
13DF 260 rem *****
EA9F 270 fori=0to15:forj=0to3:c(i,j)=0:next:next
88B4 280 a=fre(.):p=0:r=0:f=5:t=0:p$(0)="" :fori=1to5:l(i)=0:next
5142 290 print"{clear}tab(16)"{black}yahtzee":pokev+21,15
7E12 300 gosub1400
EE04 310 printleft$(d$,11)
9A67 320 printtab(10)"{white}welcome to yahtzee":print
0974 330 printtab(14)"{yellow}f1{light green} 1 player"
8343 340 printtab(14)"{yellow}f3{light green} 2 player"
2119 350 printtab(14)"{yellow}f5{light green} 3 player"
D99D 360 printtab(14)"{yellow}f7{light green} 4 player"
2109 370 printtab(15)"{down}{yellow}p{light green}ip color"
5F31 380 gosub1620
C602 390 ifk=80thengosub1500
4ADD 400 ifk<133ork>136goto380
3A54 410 z=k-133
CE96 420 j=24:gosub1680
9DCA 430 pokev+21,0:fori=1to9:print"{home}{right}{delete}";:wait53265,128:next
BE2B 440 rem *****
2548 450 rem *** main loop ***
DC2F 460 rem *****
5276 470 f=5:g=0:t=1:fori=1to5:l(i)=0:next:onz+1goto600:t=0:ifp>zthenp=0
3522 480 gosub1040
7340 490 gosub1620
C23A 500 ift>0andt<3thenifk>48andk<54thengosub680:goto490
06B6 510 ift>0thenifk>64andk<78thengosub750:onggoto570,270:goto490
1D08 520 ifk=80thengosub1500
4370 530 ifk<>32ort=3goto490
ED05 540 ift=0andz>0thenpoke781,21:sys59903:poke781,23:sys59903
33AA 550 rem *** prepare rolling the dice... ***
5338 560 f=5:fori=1to5:f=f-l(i):next:iff=0goto490
2065 570 t=t+1:ift=4thenp=p-(z>0):j=24:gosub1680:goto470
096C 580 fori=1to5:ifl(i)=0thenprintleft$(d$,20)tab(2+i*5)b$b$b$b$b$b$"{space*5}";
BD6C 590 next:printleft$(d$,22)" b$b$b$b; left$(d$,22)tab(33)b$b$b$b;
7C05 600 j=19:gosub1680:pokev+21,15:
7301 610 fori=0tof:pokes+1,rnd(1)*10+1:fork=1to2:forj=0to2:pokes+4+7*j,129:next
628E 620 forj=0to2:pokes+4+7*j,0:next:next:forj=1to5:next:next
0E7B 630 gosub1400
8877 640 goto480
5AA7 650 rem *****
1893 660 rem *** lock dice ***
69D4 670 rem *****
B232 680 d=k-48:l(d)=1-l(d):printleft$(d$,20)tab(4+d*5);
AA3D 690 ifl(d)=1thenprint"{light green}>";
9477 700 ifl(d)=0thenprint"{yellow}"chr$(k);
51BD 710 return
CFCF 720 rem *****
3E98 730 rem *** score category ***
A4DD 740 rem *****
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51EB 750 d=k-65:d=d-2*(d>5):ifpeek(1125+d*40+p*5)<>32thenreturn
1DA8 760 g=1:n=0:x=0:y=0:b=19+p*5:t=3
B84B 770 ifd<6thene=d+1:fori=1to5:n=n-e*(x(i)=e):next:goto860
0B42 780 fori=1to6:d(i)=0:next:fori=1to5:d(x(i))=d(x(i))+1:n=n+x(i):next
D14C 790 ond-7goto800,810,820,830,840,850,860
0CDC 800 fori=1to6:x=xor(d(i)>2):next:n=n*-x:goto860
B115 810 fori=1to6:x=xor(d(i)>3):next:n=n*-x:goto860
1490 820 fori=1to6:x=xor(d(i)=2):y=yor(d(i)=3):next:n=25*-(x<0andy<0):goto860
9DA4 830 fori=1to6:x=(x-(d(i)>0))*not(x<4andd(i)=0):next:n=30*-(x>3):goto860
BA44 840 fori=1to6:x=(x-(d(i)>0))*not(x<5andd(i)=0):next:n=40*-(x>4):goto860
3280 850 fori=1to6:x=xor(d(i)=5):next:n=50*-x
3186 860 l=d:gosub1560:printleft$(d$,3+d)tab(b)"{light green}!{white}"right$(n$,2)
7805 870 ifd<6thenfori=0to5:n=n+c(i,p):next:l=6:gosub1560:printleft$(d$,9)tab(b)m$n$
5694 880 ifc(6,p)>62thenifc(7,p)=0thenn=35:l=7:gosub1560:printtab(b)"{white}"n$
29F4 890 fori=6to14:n=n+c(i,p):next:l=15:gosub1560:printleft$(d$,18)tab(b)m$n$
778D 900 poke781,19:sys59903
3B9A 910 ifp=zthenr=r+1:ifr=13theng=2:goto970
735D 920 print"{down*3}"b$b$b$"{up*3}"tab(33)"space"r$="next"r$mid$(t$,-(z=p)*6+1,6)
B278 930 gosub1620:ifk=80thengosub1500
65A3 940 ifk<>32goto930
303C 950 return
FF20 960 rem *** show game over ***
4C94 970 poke1123+d*40+p*5,32:print"{down*3}"game"r$b$"over{up*2}"tab(33)"press"r$b$"space"
FE8E 980 onz+1goto930:n=c(15,0):fori=1toz:ifc(15,i)>nthenn=c(15,i)
93B1 990 next:print"{home}{yellow}";:fori=0toz:printtab(18+i*5)left$("@",-c(15,i)=n));:next
EC08 1000 goto930
3B9E 1010 rem *****
ECAF 1020 rem *** show score table ***
108E 1030 rem *****
0C0E 1040 pokev+21,0:print"{home}{down}"
89E1 1050 printtab(8)"{white}ones [ {yellow}a"
B8BC 1060 printtab(8)"{white}twos £ {yellow}b"
49EC 1070 printtab(6)"{white}threes ] {yellow}c"
E472 1080 printtab(7)"{white}fours ^ {yellow}d"
E4D2 1090 printtab(7)"{white}fives {arrow left} {yellow}e"
718B 1100 printtab(7)"{white}sixes : {yellow}f"
875F 1110 printtab(6)"{light green}subtotal"
5EFB 1120 printtab(5)"{light green}63+ bonus"
48A6 1130 print"{space*3}{white}3 of a kind {yellow}g"
A509 1140 print"{space*3}{white}4 of a kind {yellow}h"
B974 1150 print"{space*4}{white}full house {yellow}i"
3AD1 1160 print"{white}small straight {yellow}j"
77FA 1170 print" {white}long straight {yellow}k"
AB5B 1180 printtab(7)"{white}yahtzee {yellow}l"
50FC 1190 printtab(8)"{white}chance {yellow}m"
8B99 1200 printtab(9)"{light green}total"
3088 1210 print"{home}"tab(16)"{white} ";
EF10 1220 ifz>0thenfori=0toz:printmid$(m$,2+(p=i),1)+"{space*2}p1"+mid$("1234",i+1,1);:next
F05F 1230 ifp$(0)<>"thengoto1300
D9D9 1240 p$="{light green}#;":onz+1goto1250:fori=1toz:p$=p$+";";;<":next
7A99 1250 p$(0)=p$+";";;%":fori=0to15:p$="{light green}& "
19DC 1260 forj=0toz:ifi=6ori=15thenp$=p$+"{light green}{space*2}0":goto1280
9CF0 1270 p$=p$+"{white}{space*3}"
EC51 1280 p$=p$+" {light green}":next:p$(1+i)=p$:next
A31F 1290 p$(17)="{light green}("+left$("{)*20", (z+1)*5)+""
9B85 1300 print:fori=0to17:printtab(17)p$(i):next
2DA9 1310 ift>0andt<3thenford=1to5:printtab(4+d*5);:k=d+48:gosub690:next
B56A 1320 ift>0thentprintleft$(d$,22)" {light green}a-m ="r$"score"r$"categ{up*5}"
88A4 1330 ift>0andt<3thenprintleft$(d$,22)tab(33)"{light green}space"r$="roll"r$"again{home}"
AF59 1340 ift=0thenprintleft$(d$,22)tab(16)"{white}player"str$(p+1)
F881 1350 ift=0thenprinttab(6)"{down}{light green}press space to roll the dice{home}"
F44A 1360 return
AE69 1370 rem *****
24CD 1380 rem * dice roll animation *
BA52 1390 rem *****
F399 1400 fori=1to5:w(i)=(int(rnd(.)*4)+8)*-(l(i)=0):next
D360 1410 fori=1to5:w=w(i):onw+1goto1450:w=w-1+(w>4):w(i)=w:ifw=0thenf=f-1
9D6A 1420 ifw=0thenift=0thenx=i:goto1440
9D34 1430 x=int(rnd(.)*6)+1:ifx=x(i)orx+x(i)=7goto1430
24A8 1440 x(i)=x:printleft$(d$,19-w)tab(2+i*5)b$b$dc$mid$(c$,x,1)dc$(x)
7560 1450 next:forj=1to400-f*80:next:iffgoto1410
32EA 1460 return
CA7A 1470 rem *****
B749 1480 rem *** toggle pip color ***
CCE4 1490 rem *****
3496 1500 c=1-c:c$=left$("{red}{blue}{green}{purple}{pink}{cyan}",c*6):fori=1to5:w(i)=1:next
2A42 1510 fori=1to5:printleft$(d$,21)tab(2+i*5)dc$mid$(c$,x(i),1)dc$(x(i)):next
6D4A 1520 return
F2DE 1530 rem *****

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CD38 1540 rem *** update score table element (in value+string array) ***
60BB 1550 rem *****
2337 1560 c(l,p)=n:n$=str$(n):n$=right$("{space*2}" + mid$(n$, 2, len(n$) - 1), 3):n=0
1D19 1570 p$=p$(l+1):p$(l+1)=left$(p$, 4+p*7)+n$+mid$(p$, 4+p*7+4)
9B29 1580 return
676B 1590 rem *****
2751 1600 rem *** wait for key and return key value ***
9947 1610 rem *****
24DE 1620 poke198,0
E21C 1630 getk$:on-(k$="")goto1630:k=asc(k$)
C489 1640 return
6A28 1650 rem *****
FCBF 1660 rem *** clear screen (bottom-up line removal) ***
8AEE 1670 rem *****
C863 1680 fori=jto1step-1:poke781,i:sys59903:next
13D9 1690 return
335D 1700 rem *****
E84B 1710 rem *** copy char rom and create some custom characters ***
3AE8 1720 rem *****
8F4F 1730 poke56334,peek(56334)and254:poke1,peek(1)and251:poke781,2:poke782,255
7425 1740 poke90,0:poke91,209:poke88,0:poke89,57:sys41960:poke1,peek(1)or4
7898 1750 poke56334,peek(56334)or1:fori=14336to14343:reada:pokei,a:next
C6C6 1760 fori=14552to14679:reada:pokei,a:next:fori=14800to14839:reada:pokei,a:next
7259 1770 return
E5EA 1780 data 60,126,189,126,24,24,60,0 :rem @ trophy cup
0C1B 1790 data 254,254,254,238,254,254,254,0 :rem [ dice one
CEA8 1800 data 254,250,254,254,254,190,254,0 :rem £ dice two
14F5 1810 data 254,250,254,238,254,190,254,0 :rem ] dice three
C8CE 1820 data 254,186,254,254,254,186,254,0 :rem ^ dice four (arrow up)
3E53 1830 data 254,186,254,238,254,186,254,0 :rem < dice five (arrow left)
10A6 1840 data 0,0,0,0,0,0,0,0 :rem space
A122 1850 data 0,56,124,124,116,56,0,0 :rem ! dice dot
7C23 1860 data 102,102,0,0,0,0,0,0 :rem " double quotes
6AF4 1870 data 0,0,0,0,0,3,7,7 :rem # dice top left corner
78ED 1880 data 0,0,0,0,0,255,255,255 :rem $ dice top border
8641 1890 data 0,0,0,0,0,128,192,192 :rem % dice top right corner
2AB3 1900 data 7,7,7,7,7,7,7,7 :rem & dice left border &
F281 1910 data 192,192,192,192,192,192,192,192 :rem ' dice right border
4367 1920 data 7,3,0,0,0,0,0,0 :rem ( bottom left corner
0E4B 1930 data 255,255,0,0,0,0,0,0 :rem ) dice bottom border
4443 1940 data 192,128,0,0,0,0,0,0 :rem * bottom right corner
8FCE 1950 data 254,186,254,186,254,186,254,0 :rem : dice six
9D4C 1960 data 0,0,0,0,0,255,255,0 :rem ; table top border
75AB 1970 data 0,0,0,0,0,255,255,192 :rem < table top limiter
088F 1980 data 0,0,60,0,60,0,0,0 :rem = equal sign
FC49 1990 data 56,68,68,254,254,254,254,254 :rem > lock symbol
9B54 2000 rem *****
7FF9 2010 rem *** initialize 4 sprites for yahtzee logo ***
D9DA 2020 rem *****
8A34 2030 pokev+23,0:pokev+78,0:pokev,156:pokev+1,76:pokev+2,180:pokev+3,76
6FA5 2040 pokev+4,156:pokev+5,97:pokev+6,180:pokev+7,97
1A86 2050 fori=.to3:pokev+39+i,13:next:pokev+27,255
D4FB 2060 poke2040,232:poke2041,233:poke2042,234:poke2043,235
A692 2070 fori=.to255:reada:poke14848+i,a:next
95C7 2080 return
7860 2090 rem *** sprite 0: yahtzee logo top left ***
1824 2100 data 0,0,0,0,0,0,0,0,0,0,1,0,0,6,0
2120 2110 data 0,9,0,0,23,0,0,47,0,0,95,0,0,95,0,0
4B7C 2120 data 191,0,0,191,0,1,127,0,1,127,0,1,127,0,1,127
CD0C 2130 data 0,1,127,0,1,126,0,1,125,0,1,253,0,0,12,13
D5F0 2140 rem *** sprite 1 yahtzee logo top right ***
9386 2150 data 0,15,0,0,127,192,63,255,240,195,255,216,62,127,244,252
338B 2160 data 63,254,252,15,250,248,7,255,248,3,253,248,3,255,248,1
88F3 2170 data 253,248,1,255,252,0,253,252,0,255,254,0,250,254,0,254
20A5 2180 data 135,0,252,121,192,248,238,240,240,123,127,224,223,127,192,13
494B 2190 rem *** sprite 2 yahtzee logo bottom left ***
7189 2200 data 0,15,236,0,59,212,0,126,164,0,7,118,0,0,167,0
0674 2210 data 0,247,0,0,161,0,0,240,15,0,160,31,128,128,54,192
C7A8 2220 data 0,127,224,56,254,241,252,31,224,238,14,192,127,7,128,61
CD6B 2230 data 3,0,47,0,0,63,0,0,61,0,0,47,0,0,56,13
ACC3 2240 rem *** sprite 3 yahtzee logo bottom right ***
73B3 2250 data 125,125,128,63,127,128,63,123,0,47,118,0,60,236,0,179
CDA8 2260 data 216,0,207,224,0,127,128,0,0,0,0,0,0,15,224
ED00 2270 data 0,3,248,0,3,232,0,2,248,0,3,184,0,3,248,0
33A3 2280 data 3,232,0,2,248,0,3,128,0,0,0,0,0,0,13

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