

Chapter 13d

Weight

The Kilogram and the Gram

Be able to convert kilograms to grams and vice versa

A **gram** is **small unit** used to weigh objects. It indicates how **heavy** the object is.

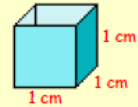
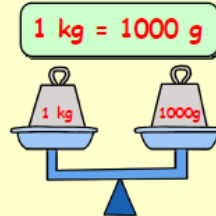
A packet of crisps weighs about **30 grams**.

A **kilogram** is made up of **1000 grams**.

Scales are used to weigh objects.

Examples :-

- $3 \text{ kg} = 3000 \text{ g}$
- $6000 \text{ g} = 6 \text{ kg}$
- $4750 \text{ g} = 4 \text{ kg } 750 \text{ g}$
- $2 \text{ kg } 30 \text{ g} = 2030 \text{ g}$



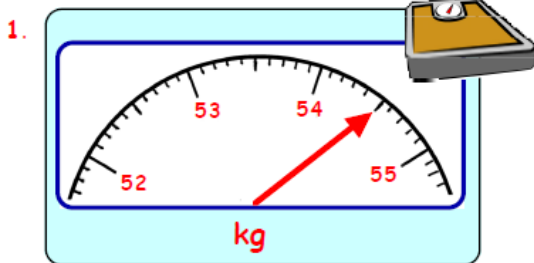
If you fill a hollow cube of side 1 centimetre with water, it will weigh **1 gram**.



Problems involving Weight

Exercise 2

Be able to solve problems involving various weight.



Write down the reading on the bathroom scales :-

- a in kilograms
- b in grams.

2. Maida has bought in enough food to set up a breakfast bar for herself and her friends after a sleepover. Here is a list of what she bought.


Croissants	270 g
Buns	340 g
Muffins	440 g
Pancakes	315 g
Waffles	150 g
Butter	1.2 kg
Jam	710 g
+ Number of bread fingers.....	45

- a What is the **total** weight of the Croissants, the Buns and the Muffins ?
- b What is the **total** weight of the Pancakes, the Waffles the Butter and the Jam ?
- c What is the **total** weight of all the produce ?
(except the bread fingers).
- d Write the total weight of the answer in c in **kilograms and grams**.
- e There are exactly enough bread fingers for everyone to have $4\frac{1}{2}$ each.
How many people were at the sleepover breakfast ?

3. Maida's mum has also been shopping.
She bought **two and a half kilograms** of cherries to bake a cherry pie.
She set aside **750 grams** of the cherries to make jam.

- a How many **grams** of cherries did Maida's mum buy ?
- b How many grams of cherries were actually used in baking the pie ?



4.  The postman delivered two parcels - one for Cheryl and one for her brother Danny.
Cheryl's parcel weighed **4 kg 200 g** and Danny's weighed **3 kg 850 g**.
- a How much **heavier** was Cheryl's parcel ?
 - b What was the combined weight of the parcels carried by the postman ?

5.



Mr Braiden bought two jars of gherkins from the supermarket. Each jar weighed 780 grams.

- a What is the **total** weight of the jars, in grams ?
- b What is their **total** weight in kilograms ?

6.

Auldo the Bakers have 3 gateaux in their window.

Their **total weight** is 3 kg 150 g.

The sultana cake weighs 975 grams and the strawberry cake weighs 1 kg 250 g.

What is the weight of the chocolate cream cake ?



7.



Three identical bags of potatoes weigh a **total** of 3 kg 420 g.

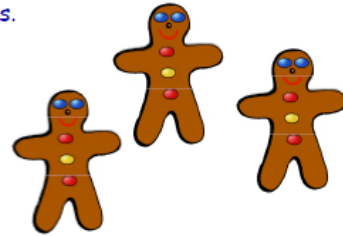
- a What is the weight of **1 bag**, in kg and g ?
- b What is the weight of 1 bag, in grams ?

8.

To decorate her gingerbread men, Ali needs 260 grams of Smarties.

The Smarties she uses can only be bought in 40 gram packets.

- a How many packets will Ali have to buy ?
- b What weight of Smarties will she have left over ?



9.

Four fishermen hired a boat to fish for cod .

The largest fish each of them caught is given in the table.

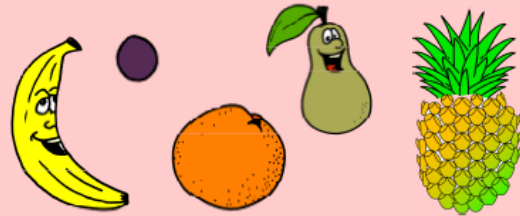
Jake - 1 kg 130 g	Fred - 1 kg 200 g
Colin - 970 g	Rory - 1 kg 5 g



- a Write down the names of the fishermen, in order, starting with the one who caught the **smallest** cod.
- b How many **grams** did Rory's cod weigh ?
- c What was the **difference** in weight between the heaviest and the lightest fish ?
- d The local fish and chip shop owner offered to buy any cod caught fresh on their boat on the day, as long as they weigh at least 1100 grams.
 - (i) Which fishermen were **not** able to sell their cod to the "chippie" ?
 - (ii) By how many grams did Rory's best cod fall short ?



10. If a (mathematical) orange weighs 30 grams, pear weighs 20 grams, pineapple weighs 45 grams, grape weighs 25 grams, what will a (mathematical) banana weigh?



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- | | | | |
|---|---------|---|---------|
| a | 54.5 kg | b | 54500 g |
|---|---------|---|---------|
- | | | | |
|---|--------|---|------------|
| a | 1050 g | b | 2375 g |
| c | 3425 g | d | 3 kg 425 g |
| e | 10 | | |
- | | | | |
|---|--------|---|--------|
| a | 2500 g | b | 1750 g |
|---|--------|---|--------|
- | | | | |
|---|-------|---|-----------|
| a | 350 g | b | 8 kg 50 g |
|---|-------|---|-----------|
- | | | | |
|---|--------|---|---------|
| a | 1560 g | b | 1.56 kg |
|---|--------|---|---------|
- 925 g
- | | | | |
|---|------------|---|--------|
| a | 1 kg 140 g | b | 1140 g |
|---|------------|---|--------|
- | | | | |
|---|--------|---|------|
| a | 7 bags | b | 20 g |
|---|--------|---|------|
- | | | | |
|---|-------------------------|------|-------|
| a | Colin, Rory, Jake, Fred | | |
| b | 1005 g | c | 230 g |
| d | (i) Colin & Rory | (ii) | 95 g |
- 30 grams - (5 g for each letter in the word.)