

- 1 The bar model shows that 1 kg is equal to 1,000 g.
Use the bar models to complete the conversions.

1 kg
1,000 g

a)

1 kg	1 kg	1 kg

3 kg = g

b)

1 kg	1 kg	1 kg	1 kg	1 kg

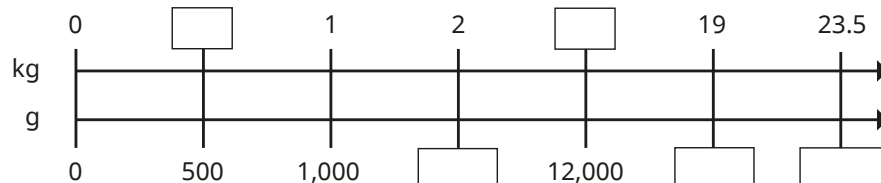
5 kg = g

c)

1,000 g	1,000 g	1,000 g	1,000 g

kg = 4,000 g

- 2 Find the missing values to convert between kilograms and grams.



- 3 Dexter and Whitney are converting 27.5 kg into grams.



I'm going to use bar models.

Dexter

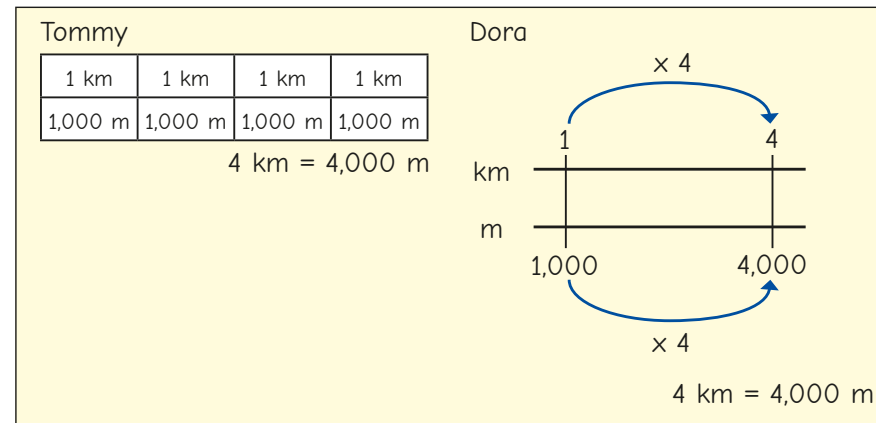


I'm going to use a double number line.

Whitney

- a) Whose method is more efficient?
Explain your answer.
- b) Work out the conversion.

- 4 Tommy and Dora are converting 4 km into metres.
Here are their workings.



Whose method do you prefer?
Explain your answer.

- 5 Complete the conversions.

- a) 18 kg = g
- b) 18 km = m
- c) 21,000 g = kg
- d) 32,500 m = km
- e) 11.5 km = m
- f) g = 41.2 kg
- g) g = 0.1 kg
- h) 100 km = m

- 6 Complete the conversions.

- a) $\frac{1}{2}$ kg = g $\frac{1}{4}$ kg = g $\frac{3}{4}$ kg = g
- b) $\frac{1}{10}$ km = m $\frac{1}{5}$ km = m $\frac{3}{10}$ km = m
- c) $\frac{3}{6}$ kg = g $\frac{12}{24}$ kg = g $\frac{99}{198}$ kg = g
- d) $\frac{20}{20}$ km = m $\frac{1}{20}$ km = m $\frac{19}{20}$ km = m

- 4 Tommy and Dora are converting 4 km into metres.

Here are their workings.

Tommy

1 km	1 km	1 km	1 km
1,000 m	1,000 m	1,000 m	1,000 m

4 km = 4,000 m

Dora

4 km = 4,000 m

Whose method do you prefer?

Explain your answer.

- 5 Complete the conversions.

- | | |
|---------------------------------------|-------------------------------------|
| a) 18 kg = <input type="text"/> g | e) 11.5 km = <input type="text"/> m |
| b) 18 km = <input type="text"/> m | f) <input type="text"/> g = 41.2 kg |
| c) 21,000 g = <input type="text"/> kg | g) <input type="text"/> g = 0.1 kg |
| d) 32,500 m = <input type="text"/> km | h) 100 km = <input type="text"/> m |

- 6 Complete the conversions.

- | | | |
|--|---|--|
| a) $\frac{1}{2}$ kg = <input type="text"/> g | $\frac{1}{4}$ kg = <input type="text"/> g | $\frac{3}{4}$ kg = <input type="text"/> g |
| b) $\frac{1}{10}$ km = <input type="text"/> m | $\frac{1}{5}$ km = <input type="text"/> m | $\frac{3}{10}$ km = <input type="text"/> m |
| c) $\frac{3}{6}$ kg = <input type="text"/> g | $\frac{12}{24}$ kg = <input type="text"/> g | $\frac{99}{198}$ kg = <input type="text"/> g |
| d) $\frac{20}{20}$ km = <input type="text"/> m | $\frac{1}{20}$ km = <input type="text"/> m | $\frac{19}{20}$ km = <input type="text"/> m |

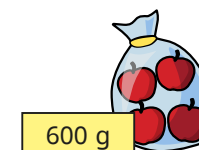
- 7 Write <, > or = to compare the measurements.

- a) 0.5 km 600 m
- b) 3.7 kg 3,200 g
- c) 5,000 g + 2 kg 5.5 kg + 1,500 g
- d) $\frac{7}{10}$ km + $\frac{3}{10}$ km + 965 m 817 m + 1 km

- 8 The mass of a bag of apples is 600 g.

What is the mass of 8 bags of these apples?

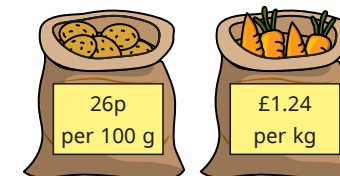
Give your answer in kilograms.



- 9 Ron buys 3.8 kg of potatoes and 1,250 g of carrots.

He pays with a £20 note.

How much change does he get?



- 10 Dora runs 200 m in 32 seconds.

If she runs at the same speed, how long will it take her to run 5 km?

Is Dora likely to be able to keep up this speed?