Millimetres and millilitres

1 The bar model shows that 1 m is equal to 1,000 mm.

1 m
1,000 mm

Use the bar models to complete the conversions.

a)

1 m	1 m	1 m	1 m	1 m	1 m
1,000 mm	1,000 mm	1,000 mm	1,000 mm	1,000 mm	1,000 mm

6 m = 6,000 mm

b)

1 m	1 m	1 m
1,000 mm	1,000 mm	1,000 mm

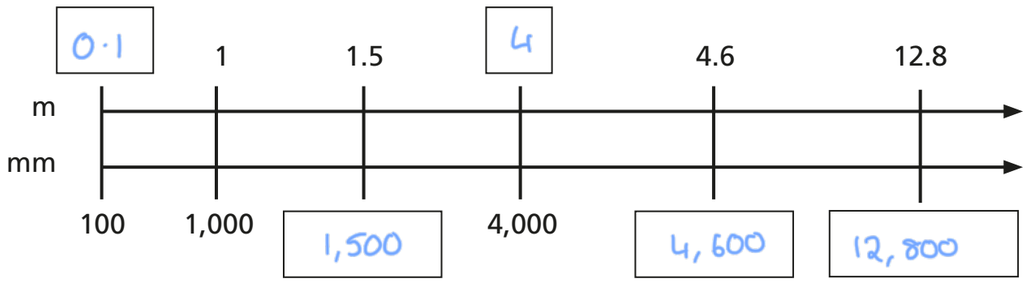
3 m = 3,000 mm

c)

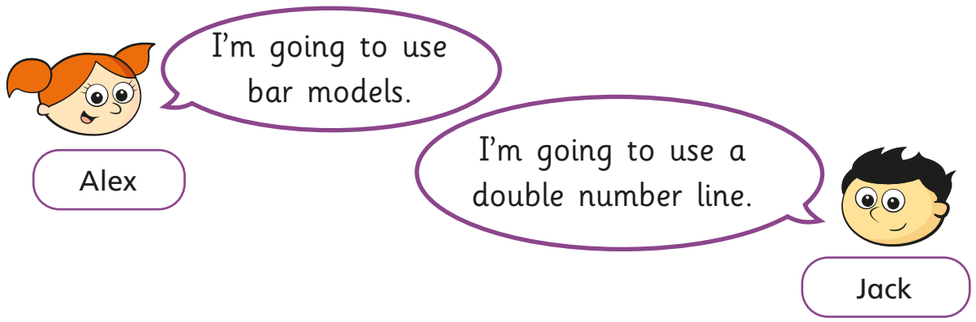
1m	1m	1m	1m	1m
1,000 mm	1,000 mm	1,000 mm	1,000 mm	1,000 mm

5 m = 5,000 mm

2 Fill in the missing values to convert between metres and millimetres.



3 Alex and Jack are converting 3.5 m into millimetres.

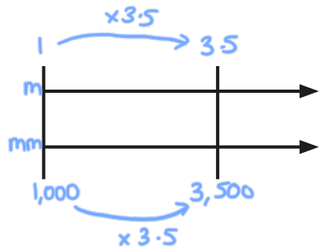


a) Complete both methods to show that they get the same answer.

Annie's method

1 m	1m	1m	0·5m
1,000 mm	1,000 mm	1,000mm	500mm

Jack's method



b) Complete the conversion.

3.5 m = 3,500 mm

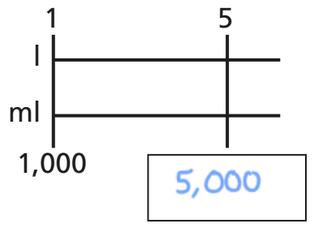
c) Whose method do you prefer? various

Explain your answer.

4 Use the information to complete the representations and conversions.

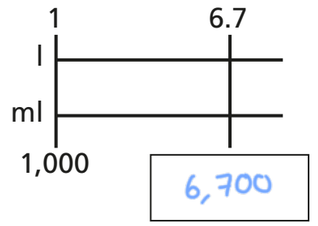
1 litre = 1,000 ml

a)



5 l = 5,000 ml

b)



6.7 l = 6,700 ml

c)

1 l	1 l	1 l	1 l
1,000 ml	1,000 ml	1,000 ml	1,000 ml

4 l = 4,000 ml

d)

1l	1 l	1 l	0·5l
1,000 ml	1,000 ml	1,000 ml	500 ml

3·5 l = 3,500 ml

5 Complete the conversions.

a) 15 m = 15,000 mm

b) 15 l = 15,000 ml

c) 63,000 ml = 63 l

d) 47,500 mm = 47·5 m

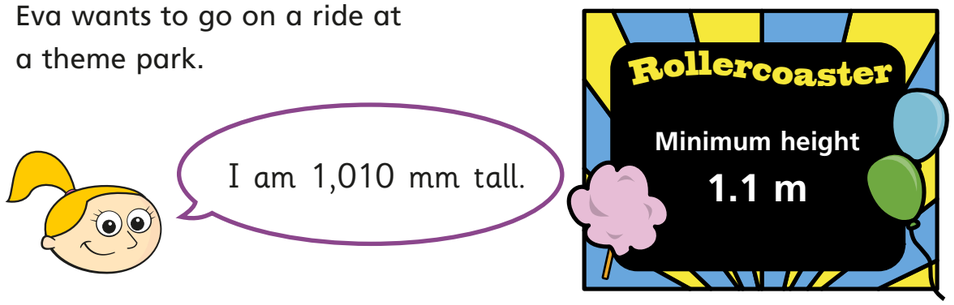
e) 11.05 m = 11,050 mm

f) 71,250 ml = 71.25 l

g) 100 mm = 0.1 m

h) 100 l = 100,000 ml

6 Eva wants to go on a ride at a theme park.



Can Eva go on the ride? NO

Explain your answer.

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

a) $\frac{2}{5}$ km < 600 m

b) $\frac{9}{10}$ l + 100 ml = 1,000 ml

c) 0.8 km – 300 m < $\frac{7}{10}$ km

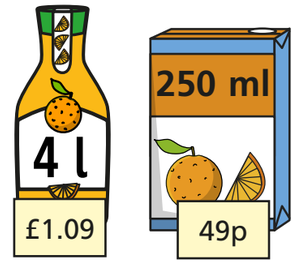
d) $\frac{1}{5}$ l + 200 ml + $\frac{4}{5}$ ml < $\frac{1}{4}$ l + 1 l

8 A piece of string is 2.76 m long.

How many 30 mm pieces can be cut from the string?

92 pieces

9 Orange juice is sold in bottles and cartons.



a) Which is better value, the carton or the bottle? bottle

Explain your answer.

b) Dexter buys 12 cartons and 5 bottles of juice. (23 litres)

He pours them into glasses with 200 ml of juice in each glass. (115 glasses)

He sells each glass of juice for 40p. (£46)

He sells all the glasses of juice.

How much profit does he make?

12 × 49p + 5 × £1.09 = £11·33

£46 – £11.33 = £34·67

£34·67