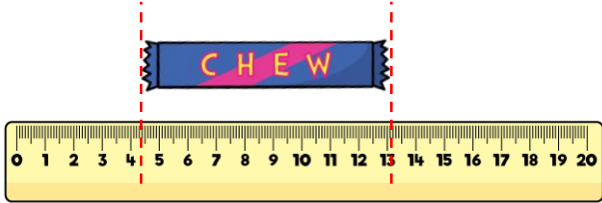# Metric Measures

Reasoning and Problem Solving

Teddy thinks his chew bar is 13.2 cm long.

Do you agree? Explain why.

Ron's dog is about $\frac{1}{4}$ of the height of the door.
Ron is three times the height of his dog.
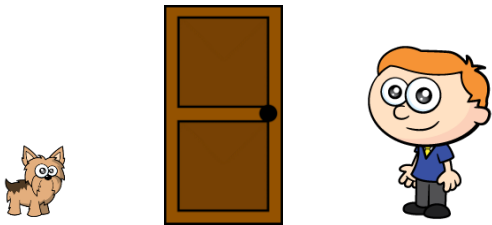Estimate the height of Ron and his dog.

Teddy is wrong because he has not lined up the end of his chew bar with zero.
It is actually 8.8 cm long.

Door = 2 m (200 cm)
Dog = 50 cm
Ron = 150 cm

Here is a train timetable showing the times of trains travelling from Halifax to Leeds.

Halifax	Leeds
07:33	08:09
07:49	08:37
07:52	08:51

An announcement states all trains will arrive $\frac{3}{4}$ of an hour late.
Which train will arrive in Leeds closest to 09:07?

The first train from Halifax, which will now arrive in Leeds at 08:54.

Convert Metric Measures

Reasoning and Problem Solving

Mo thinks that 12,000 g is greater than 20 kg because 12,000 > 20

Explain why Mo is wrong.

12,000 g = 12 kg, which is less than 20 kg.

Put these capacities in order, starting with the smallest.

3 litres	3,500 ml
0.4 litres	0.035 litres
450 ml	330 ml

0.035 litres
330 ml
0.4 litres
450 ml
3 litres
3,500 ml

A shop sells one-litre bottles of water for 99p each.

300 ml bottles of water are on offer at 8 bottles for £2

Whitney wants to buy 12 litres of water. Find the cheapest way she can do this.

£11.88 to buy 12 one-litre bottles.

12 litres = 40 bottles of size 300 ml.
40 ÷ 8 = 5 so this will cost
5 × 2 = £10
Whitney should buy 40 bottles of 300 ml.

6