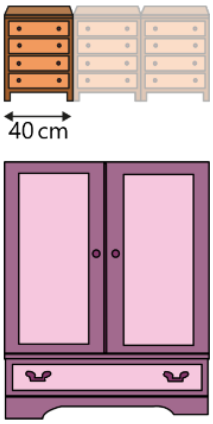
LESSON ONE:

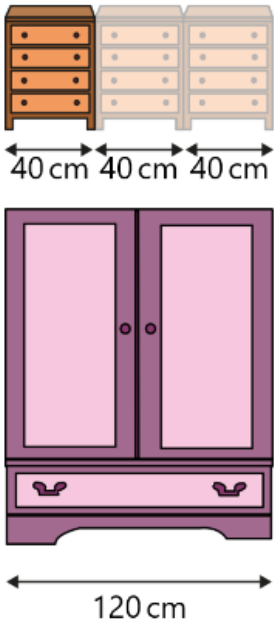
Let’s have a look at comparing measurements. On this page I’ve given you an example of how we can compare units of meaurement and the language we use. On the following pages there are some pictures and questions using units of meaurement we’ve used in past lessons. Have a go at solving them.

The wardrobe is 3 times the width of the cabinet. How wide is the wardrobe?



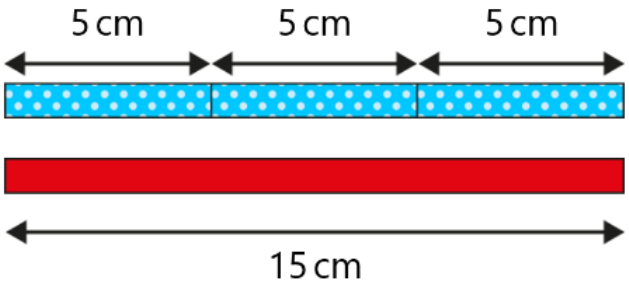
The wardrobe is 3 times the width of the cabinet. How wide is the wardrobe?

40 cm × 3 = 120 cm

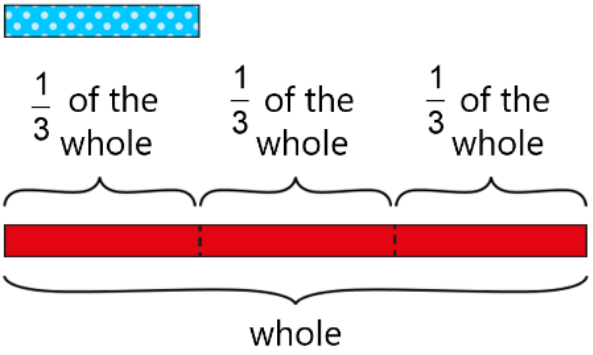


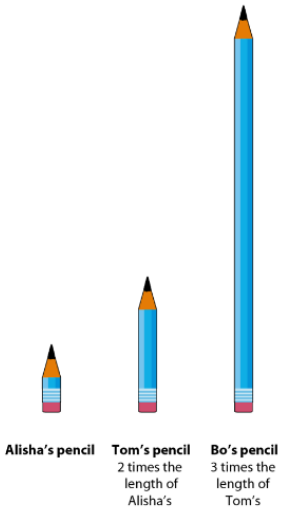
Now you have a try:

Describe the length of the plain ribbon.



Describe the length of the spotty ribbon.

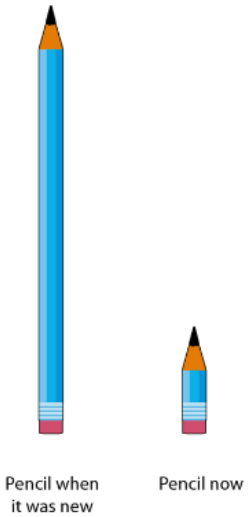




Bo's pencil is ☐ times the length of Alisha's pencil.

A pencil was 20 cm long. It is now $\frac{1}{4}$ of its original leng

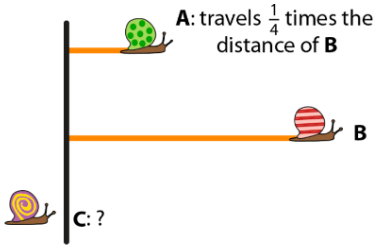
How long is the pencil now?

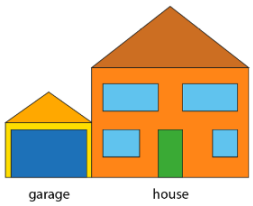


Snail A travels $\frac{1}{4}$ the distance of Snail B.

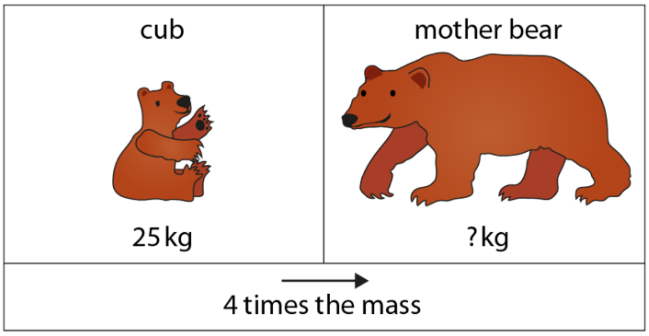
Snail C travels 3 times the distance of Snail A.

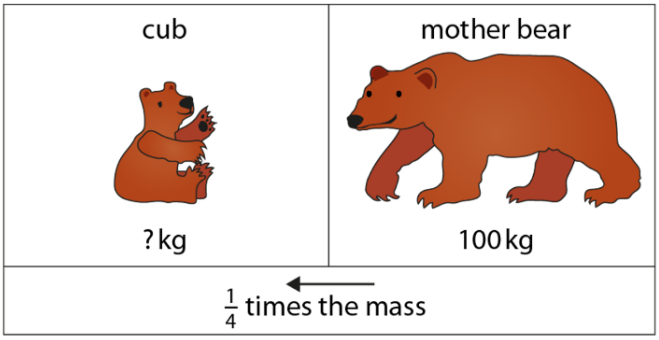
Who travels further: Snail B or Snail C?





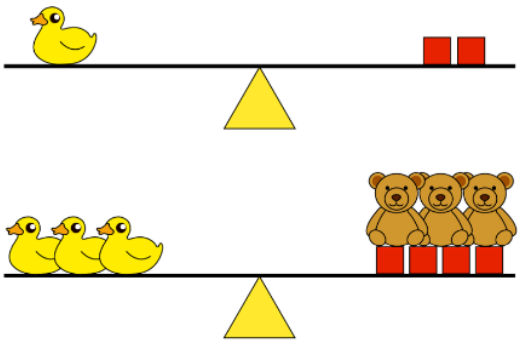
	True (✓) or false (×)
The house is double the height of the garage.	✓
The garage is double the height of the house.	
The house is one half times the height of the garage.	
The house is two times the height of the garage.	
The garage is $\frac{1}{2}$ times the height of the house.	





100 kg × $\frac{1}{4}$ = ☐ kg

100 kg ÷ 4 = ☐ kg

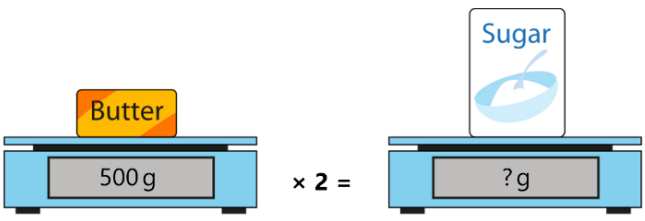


A duck is ☐ times as heavy as a brick

A duck is ☐ times as heavy as a bear

☐ bears weigh the same as 2 bricks.

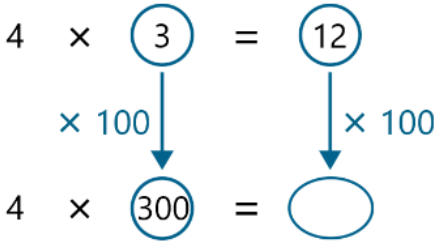
How much does the sugar weigh?



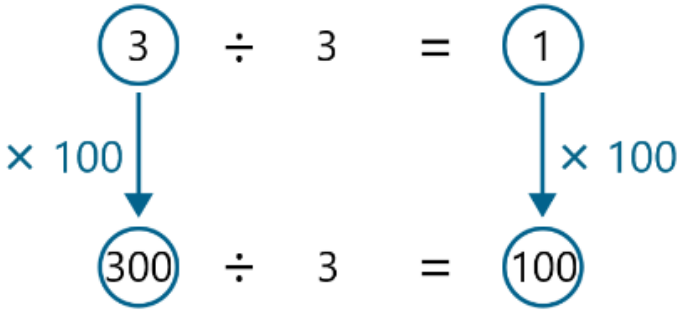
LESSON TWO:

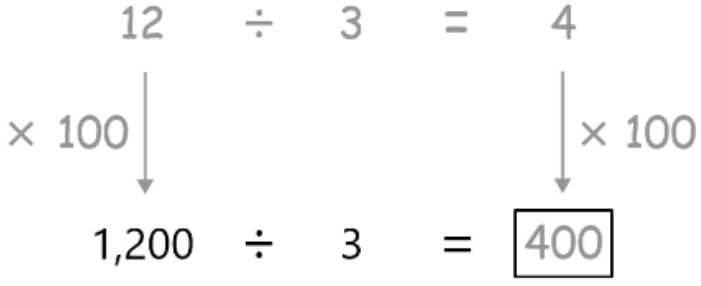
In this lesson, we're looking at scaling numbers up and down by 10 and 100. Have a look at the example on this page:

4 jars of marbles. 300 marbles in each jar.
How many marbles altogether?



Let's have a quick reminder about division:





Now it's your turn:

1. 1,200 exercise books shared equally between 6 year groups.
   How many books does each year group get?
2. There are 10 children in each club at Fleet Primary. There are 31 different after school clubs. How many children attend clubs in total?
3. How many 1p coins can you get in exchange for a £50 note from the bank?
4. The capacity of Hayes FC's stadium is 4045 seats. Liverpool has a capacity for a hundred times more spectators. What is the capacity of Liverpool's stadium?
5. Arsenal's stadium has a capacity that is ten times less than that of Liverpool. What is the capacity of Arsenal's stadium?
6. How many £10 notes would you get if you exchanged £3500?
7. A PS4 is on sale at a tenth of its original price. It usually costs £450.90. How much does it cost in the sales?
8. To build an adventure playground it will cost Camden Council £7549. Ealing Council can build it at a price that is ten times cheaper. How much could they build it for?
9. An airplane ticket to Tokyo costs £649.99 and all ten members of staff from Year 4, 5 and 6 want to go. How much will they all have to pay altogether?
10. Ms Hanfling buys a cappuccino every morning. It costs £2.45. How much does she spend over 100 days?

Can you make up a word problem that multiplies or divides by 10 or 100? We will try to work it out!

LESSON TWO:

Today, we're going to look at some more scaling. This time we're going to make objects bigger and smaller. This is a handy skill if you're helping your grown-ups in the kitchen during this time at home. Imagine you have a recipe that says it will make 4 pancakes but you know you want 8! What would you have to do the ingredients in the recipe? Double everything!

Try these:

Scaling problems

Sheet 1

Toy cars

Each toy car is a scale model. Each toy car measurement is $\frac{1}{10}$ of the real car measurements.
Work out the real-life size measurements in metres.

height 14cm, length 37cm, width 17cm

height 15cm, length 43cm, width 18cm

height 20cm, length 40cm, width 19cm

Farm animal models

Each model needs to be a $\frac{1}{4}$ of the size of the real-life animal.
Work out the model measurement in centimetres.

height 1.8m, length 2.2m

height 0.6m, length 0.8m

height 0.9m, length 1.2m

Challenge

What if you wanted to make model farm animals $\frac{1}{10}$ of the real size, what size would the models be for each animal?

Let's look at the first one together:

The red toy mini is only 14cm high. We know it's only 1/10 of the size of a real mini. So we have to:

14cm x 10 = 140cm. This could also be written as 1.4m

Length of toy mini = 37cm

37cm x 10 = 370cm or 3.7m

Width of toy mini = 17cm

17cm x 10 = 170cm or 1.7m