

A Guide to Fractions



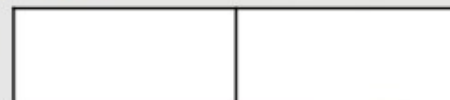
Maths Equipment

In this guide we use bar models to help children visualise how to find a fraction of an amount.

Bar models can be drawn on a mini whiteboard or paper or you may prefer to give your child ready-made bar models.

Bar models

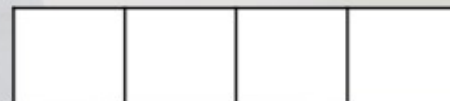
Halves



Thirds



Quarters



Fifths



This is a supporting document for episode 5 in our mini-series 'Maths with Michael' which has been produced in collaboration with TV presenter, teacher and parent Michael Underwood.

$\sqrt{3}$

Aa

$\frac{25}{100}$

5x

$1+1=2$

White
Rose
Maths

1

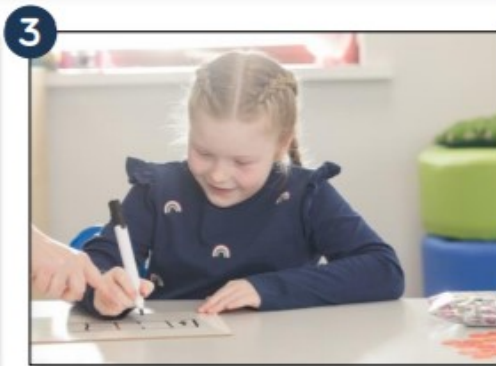
$\frac{2}{5}$ of 40kg

We are going to work out $\frac{2}{5}$ of 40 kg

2

$\frac{2}{5}$ of 40kg

Ask your child what the whole is. That's right, it's 40 kg. Get them to draw a bar (or rectangle) and label it 40 kg to show the whole.



Ask, "How many parts should we split the bar into?". We are finding two-fifths so we should split the bar into 5 equal parts.

4

$\frac{2}{5}$ of 40kg

Ask your child to explain how the bar model represents the question.

5

$\frac{2}{5}$ of 40kg

Ask, "How can we work out the value of each box?". The whole is worth 40 and there are 5 equal parts so we should do $40 \div 5$



$40 \div 5 = 8$ so ask your child to write 8 in each part. Remember this stands for 8 kg, therefore $\frac{1}{5}$ of the whole is equal to 8 kg.

7

$\frac{2}{5}$ of 40kg

Ask "If we know that $\frac{1}{5}$ of 40 kg is equal to 8 kg, how can we find $\frac{2}{5}$ of 40 kg?"

8

$\frac{2}{5}$ of 40kg

That's right, to find $\frac{2}{5}$ we need to find the total value of 2 of the parts. $2 \times 8 \text{ kg} = 16 \text{ kg}$ therefore $\frac{2}{5}$ of 40 kg = 16 kg.

Now Try These

$\frac{3}{5}$ of 20 cm

$\frac{3}{4}$ of 20 cm

$\frac{2}{3}$ of 36 kg

$\frac{5}{6}$ of £120

Remember to write down all the steps in your calculation too.



Printouts – Bar Models

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