

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

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Thirds

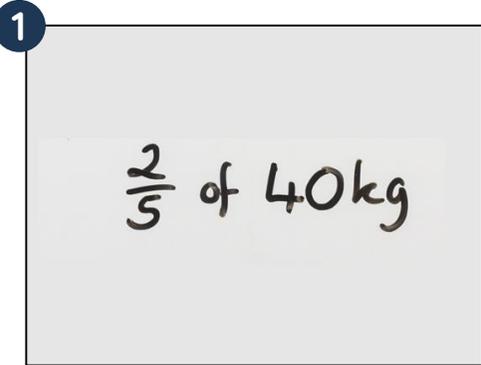
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Quarters

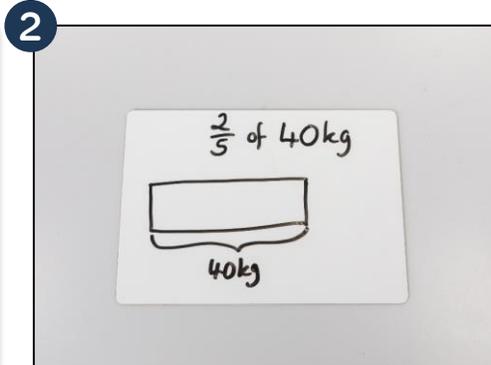
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Fifths

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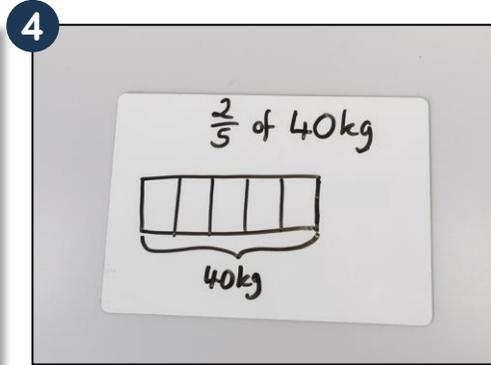
We are going to work out $\frac{2}{5}$ of 40 kg



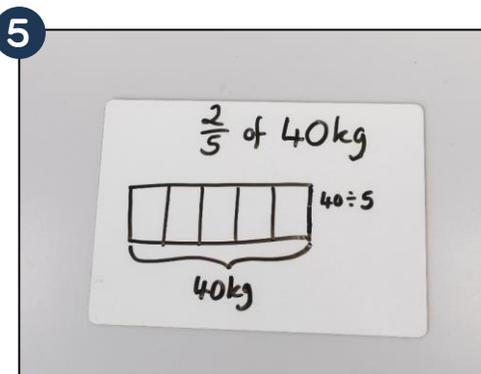
Ask your child what the whole is. That's right, it's 40 kg. Get them to draw a bar (or rectangle) and label it 40 kg to show the whole.



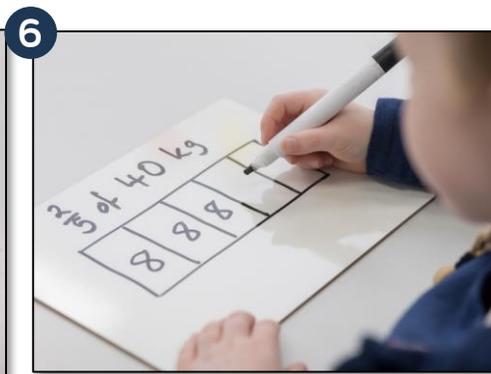
Ask, "How many parts should we split the bar into?". We are finding two-fifths so we should split the bar into 5 equal parts.



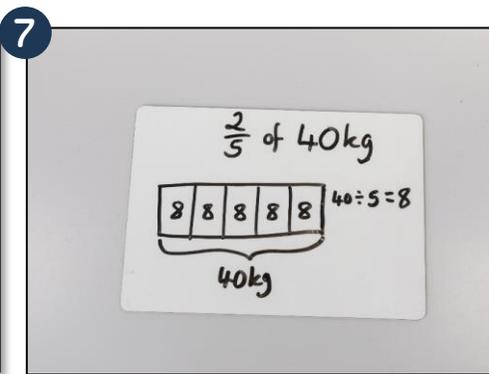
Ask your child to explain how the bar model represents the question.



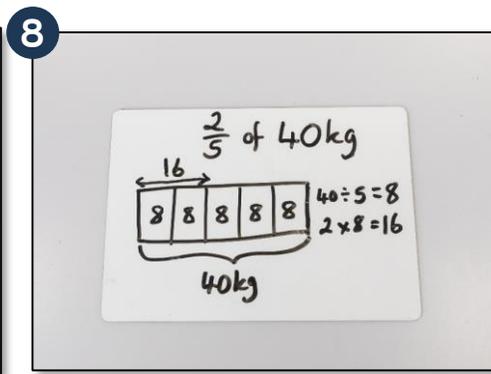
Ask, "How can we work out the value of each box?". The whole is worth 40 and there are 5 equal parts so we should do $40 \div 5$



$40 \div 5 = 8$ 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.



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?"



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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