

Use partitioning to double or halve any number, including decimals to one decimal place

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs whilst walking to school or during your car journey? You don't need to practise them all at once: perhaps you could have a fact a day. If you would like more ideas, please speak to your child's teacher.

Play games: Ping Pong - In this game, the parent says, "Ping," and the child replies, "Pong." Then the parent says a number and the child doubles it. For a harder version, the adult can say, "Pong." The child replies, "Ping," and then halves the next number given.

Practise online: You can play games online at www.conkermaths.com and www.topmarks.co.uk

Drawing: Draw a butterfly or ladybird outline. Can the children double the spots?

Use practical equipment: Using toys or items at home like lego, can the children double or half the amount given to them?

Using Top Trump cards: Pick a Top Trump card, choose any category and see how quickly you can half and double the number.

Doubling

e.g double 19.4

Double 10 = 20

Double 9 = 18

Double 0.4 = 0.8

Therefore $20 + 18 + 0.8 = 38.8$

Halving

e.g $\frac{1}{2}$ of 25.8 =

$\frac{1}{2}$ of 20 = 10

$\frac{1}{2}$ of 5 = 2.5

$\frac{1}{2}$ of 0.8 is 0.4

Therefore $10 + 2.5 + 0.4 = 12.9$

Make it real: Use real examples like the ones given below.



TOP TRUMPS FILE											
Princess Anna is an optimistic idealist who fearlessly follows her heart. When she sacrifices herself to save Elsa, Anna's pure love and acceptance show Elsa how to control her power, and is powerful enough to melt a frozen heart and save Arendelle.	<table border="1"> <tr><td>Loyalty</td><td>10</td></tr> <tr><td>Bravery</td><td>50</td></tr> <tr><td>Magic</td><td>1</td></tr> <tr><td>Greed</td><td>3</td></tr> <tr><td>Strength</td><td>6</td></tr> </table>	Loyalty	10	Bravery	50	Magic	1	Greed	3	Strength	6
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In a sponsored swim, Paul swam 75 lengths of the pool, his sister swam twice as far. How many lengths did she swim?



150 lengths
Can you tell me why?
Because double 75 is 150.

Jenny walks 1250 metres to school each day, she meets Kate half way; how far does Kate walk?



625 metres!
Tell me how you worked it out.
Well, I know that half of 1200 metres is 600 metres and half of 50 metres is 25 metres.



Key Vocabulary

What is half of 50?

What is double 23?

How do you know?

Can you tell me why?

- Children will often find numbers such as 35 harder to halve, so practise halving these numbers more often, encourage

your child to give the answer using a fraction ($17 \frac{1}{2}$) and/or a decimal (17.5)

- Encourage children to partition the numbers when doubling and halving 2- or 3-digit numbers e.g. $\frac{1}{2}$ of 240 is $\frac{1}{2}$ of 200 and then $\frac{1}{2}$ of 40.
- When halving numbers such as 18.5, encourage children to half the 18 which is 9 and then half 0.5 which is 0.25 therefore the answer is 9.25

