

Summer term week 2

Maths:

(NB continual work to practise multiplication tables (2, 3, 5 and 10) and learning to tell the time: o'clock, quarter past, half past, quarter to the hour; challenge - to five minutes)

All these strategies can be found on Brookside TV.

<https://brooksideleics.primarysite.media/playlist/year-2>

This week we are going to be doing working with fractions!

Practical activities:

Getting hands on is great when you are trying to learn about fractions. Anything that you can chop and separate is great for learning about fractions. It's a good opportunity to get active and a bit messy. Do some baking, cakes, pies, pizzas. Then try to cut them into equal portions and talk to your family about the fractions you have created.



Play dough is amazing for fractions as you can then press marbles, or Lego bricks or anything suitable into the playdough to help you find fractions of numbers. For example, $\frac{1}{4}$ of 8, cut a playdough ball into four equal parts, press 8 marbles into each of the parts one at a time and then count how many marbles you have in one part.

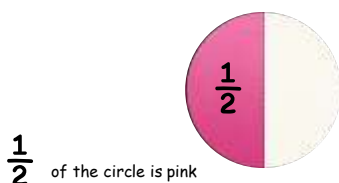
You can also cut out shapes and try to fold them equally into halves or quarters. There is a page of shapes to print out, cut and fold (if you have access to a printer) at the bottom of this maths sheet:



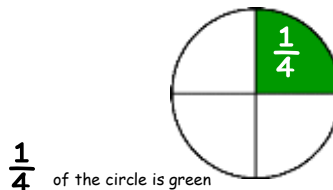
Finding halves and quarters of shapes

Remember that halving is when something is split into two equal parts and quartering is when something is split into four equal parts. **IMPORTANT** - equal means the same! If they're not the same it's not halving or quartering!

Half: $\frac{1}{2}$ ← How many you have!
← How many it is equally shared into!

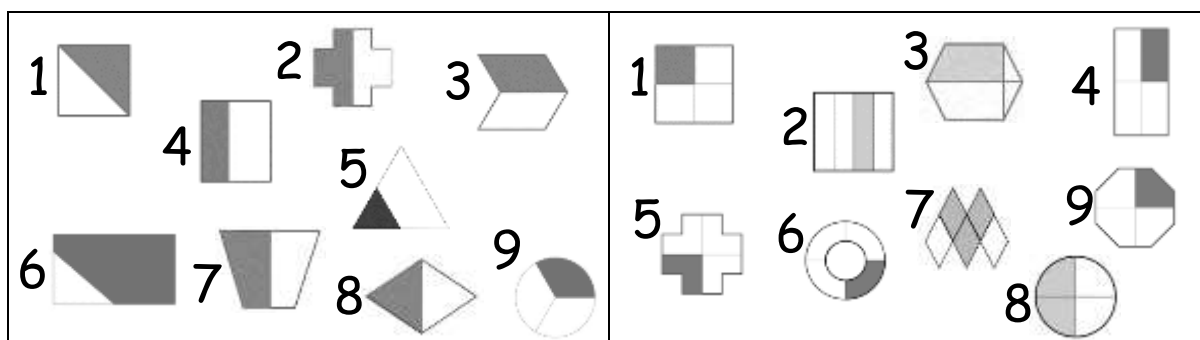


Half: $\frac{1}{4}$ ← How many you have!
← How many it is equally shared into!



Which of these shapes have half shaded?

Which of these shapes have quarter shaded?



Finding halves of numbers:

Solving problems involving halving is actually part of the Early Learning Goal for maths so please make sure that your child knows halves of even numbers up to twenty off by heart!

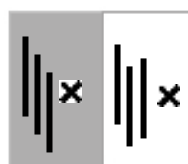
If you're struggling you can find half of numbers with jottings:

$\frac{1}{2}$ of 14:
is 7!



By sharing 14 crosses into a shape that is split in half you can count up one side of them to find half (as long as they are shared equally!)

$\frac{1}{2}$ of 62
is 31!



The same can be done with **some*** larger 2digit numbers by using jottings for tens and ones.

*where the number of tens is odd you will need to exchange!

Now have a go at these:

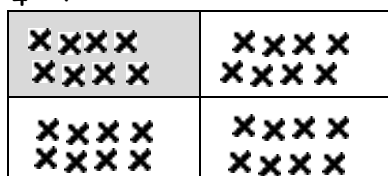
- 1) Half of 18
- 2) $\frac{1}{2}$ of 20
- 3) Half of 12
- 4) $\frac{1}{2}$ of 16
- 5) Half of 10

- 6) $\frac{1}{2}$ of 48
- 7) Half of 42
- 8) $\frac{1}{2}$ of 86
- 9) Half of 28
- 10) $\frac{1}{2}$ of 56

Finding quarters of numbers:

You can find a quarter using jottings like we did for half but using a shape split into four equal parts. Another way is to find half of a number and then find half of that answer as a half of a half is a quarter!

$\frac{1}{4}$ of 32:



is 8!

$\frac{1}{4}$ of 44:

$\frac{1}{2}$ of 44 = 22

$\frac{1}{2}$ of 22 = 11, so $\frac{1}{4}$ of 44 is 11.

Now have a go at these: Try to use both methods to see which works best for you!

- 1) One quarter of 16
- 2) $\frac{1}{4}$ of 8
- 3) One quarter of 24
- 4) $\frac{1}{4}$ of 36

- 6) $\frac{1}{4}$ of 20
- 7) One quarter of 48
- 8) $\frac{1}{4}$ of 52
- 9) One quarter of 60

5) One quarter of 40

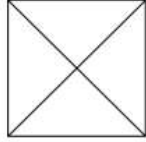
10) $\frac{1}{4}$ of 72

Solving problems:

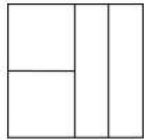
1.

Three children are splitting a square into equal parts.

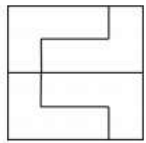
Teddy



Alex



Mo

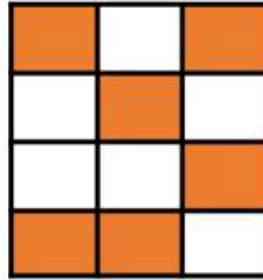


Who has split the square into equal parts? Explain why.

2.

Dora is asked to shade half of her shape.

This is what she shades.



Is she correct? Explain why.

3.

Alex is folding two identical paper strips.



I think $\frac{1}{4}$ of the strip will be bigger than $\frac{1}{2}$ of the strip because 4 is bigger than 2

Use paper strips to prove Alex is incorrect.

4.

Alex says,

I have shaded $\frac{2}{2}$ of the shape.



What mistake might Alex have made?

Answers:

Halves

1, 2, 3, 7 & 8 have half shaded.

4, 5 & 6 are not split equally and nine has a third (1 out of 3) shaded.

Quarters

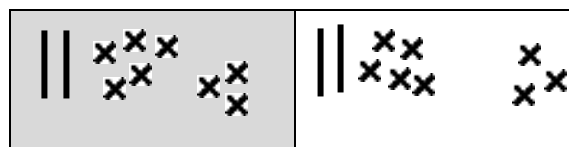
1, 2, 4, 5, 6 and 9 have one quarter shaded.

3 has not been split equally, 7 has 3 fifths (3 out of 5) shaded and 8 has 2 quarters shaded (2 quarters is the same as 1 half!).

Finding half of numbers

- 1) Half of 18 is 9
- 2) $\frac{1}{2}$ of 20 = 10
- 3) Half of 12 is 6
- 4) $\frac{1}{2}$ of 16 = 8
- 5) Half of 10 is 5

- 6) $\frac{1}{2}$ of 48 = 24
- 7) Half of 42 is 21
- 8) $\frac{1}{2}$ of 86 = 43
- 9) Half of 28 is 14
- 10) $\frac{1}{2}$ of 56 = 28



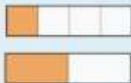
I have exchanged one of the tens for ten ones to make it possible to share it between the two halves of the box. When counted up there are 28 in each half so half of 56 is 28!

Finding one quarter of numbers

- 1) One quarter of 16 is 4
- 2) $\frac{1}{4}$ of 8 = 2
- 3) One quarter of 24 is 6
- 4) $\frac{1}{4}$ of 36 = 9
- 5) One quarter of 40 is 10

- 6) $\frac{1}{4}$ of 20 = 5
- 7) One quarter of 48 is 12
- 8) $\frac{1}{4}$ of 52 = 13
- 9) One quarter of 60 is 15
- 10) $\frac{1}{4}$ of 72 = 18

Solving problems

<p>1.</p> <p>All children have split the square into equal parts. Children may need to cut out the pieces and manipulate them to prove why.</p>	<p>2.</p> <p>Yes because there are 12 squares altogether and 6 squares are shaded. 12 is the whole, half of 12 is 6</p>	<p>3.</p> <p>Possible answer: When the whole is the same, one quarter will be smaller because it is one of four equal parts compared to a half which is one of two equal parts.</p> 	<p>4.</p> <p>She has shaded two quarters of the shape. She may have thought that the numerator represents the number of parts that are shaded and the denominator represents the number of parts that aren't. She doesn't realise the denominator represents the whole.</p>
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Shapes to cut out and fold:

Can you fold all of the shapes into equal halves? Can you fold any of them into quarters?

