Maths week 5 lesson 2

Can I find fractions of amounts?

Fast Five - answers are on the next slide

1) 839 + 762 =

2) 9864 - 654 =

3) 7 x 40 =

4) Mully is hiding behind the biggest multiple of 8 without going past the number 39. What number is Mully hiding behind?

5) What is 64 divided by 8?

Fast Five - Answers

1) 839 + 762 = 1,601

2) 9864 - 654 = 9,210

3) 7 x 40 = 280

4) Mully is hiding behind the biggest multiple of 8 without going past the number 39. What number is Mully hiding behind? 32

5) What is 64 divided by 8? 8

Let’s recap what we have learnt about fractions so far this week!

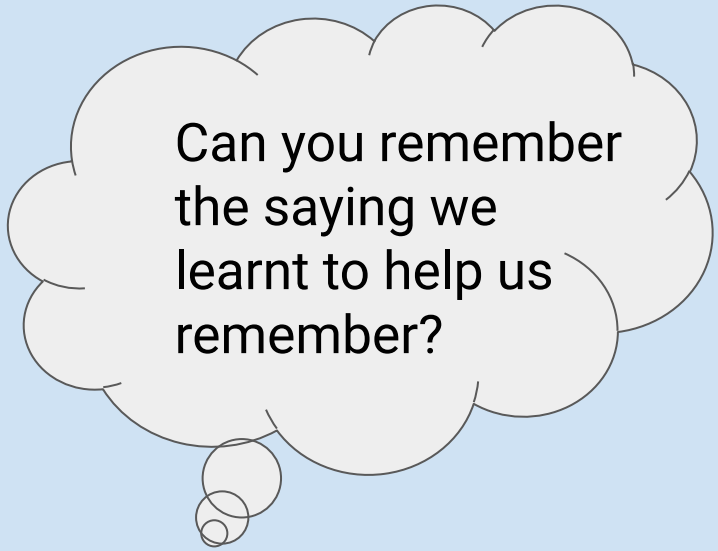
A fraction is when a whole, this can be either an object or a number, is split into **equal** parts.

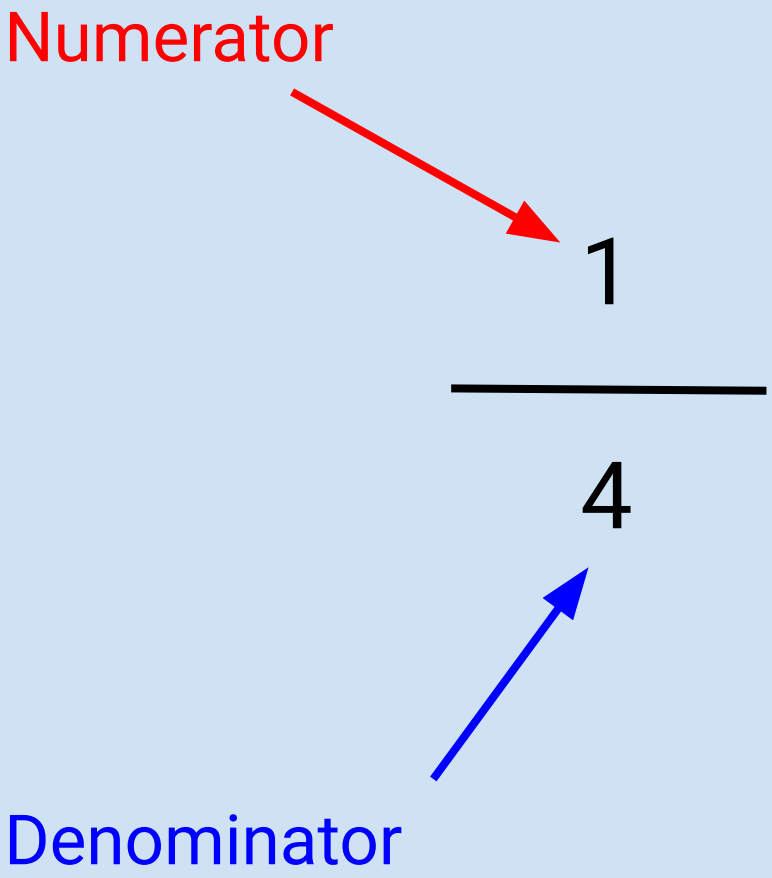
We write fractions like this:

$$\frac{1}{4}$$

Which number is the numerator?
Which number is the denominator?

$$\frac{1}{4}$$



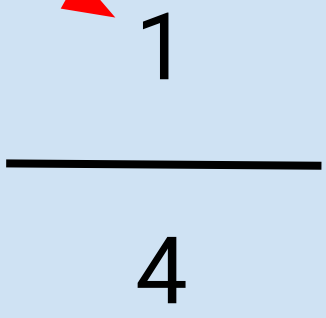


We can remember this by telling ourselves:

The denominator is downstairs!

The denominator is the bottom number of the fraction.

Numerator



The numerator tells us how many parts of the whole we have.

Denominator

The denominator tells us how many **equal** parts we split our whole into.

Today we are going to be using pictures to help us find fractions of amounts. There are always 2 steps when we do this:

Step 1: putting the pictures *equally* into the same amount of groups as the denominator.

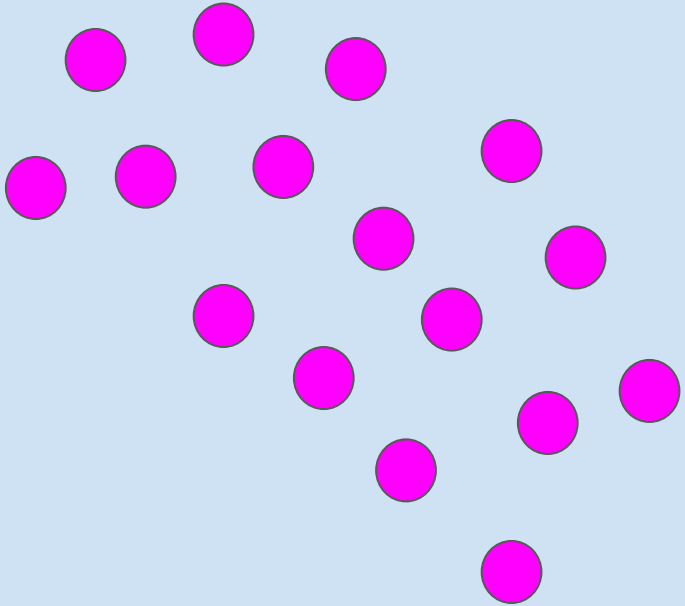
Step 2: circling the same amount of groups as the numerator, and adding the amount of pictures.

The rule - we divide the number by the denominator and then multiply the result by the numerator.

Let’s try an example together.

Find 3 of 15

5

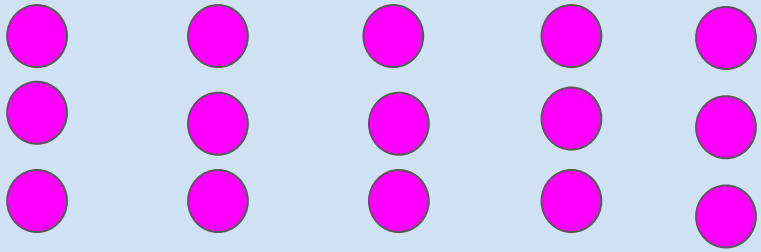


Step 1 : put the pictures *equally* into the same amount of groups as the denominator.

We need to move the dots to make 5 groups of equal amounts.

Let’s try an example together.

Find $\frac{3}{5}$ of 15



Step 1 : We need to move the dots to make 5 groups of equal amounts.

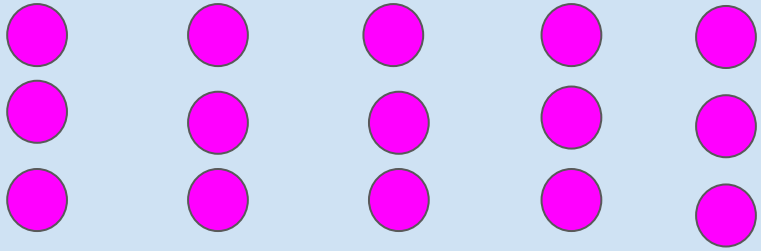
We do this by dividing the number by the denominator

15 ÷ 5 =3

So we have 5 groups of 3 dots.

Let’s try an example together.

Find $\frac{3}{5}$ of 15



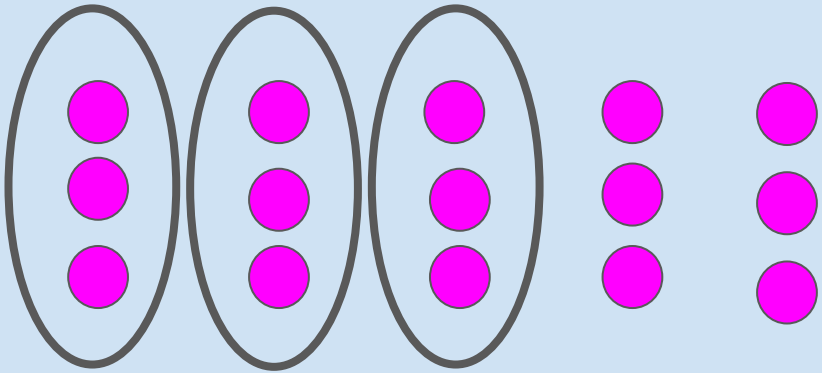
Step 2: circle the same amount of groups as the numerator, and add the amount of pictures.

Circle 3 groups (the numerator) of dots .

3 x 3 = 9

Let’s try an example together.

Find $\frac{3}{5}$ of 15



Step 2: Now we need to add the amount of dots that are in those circles together.

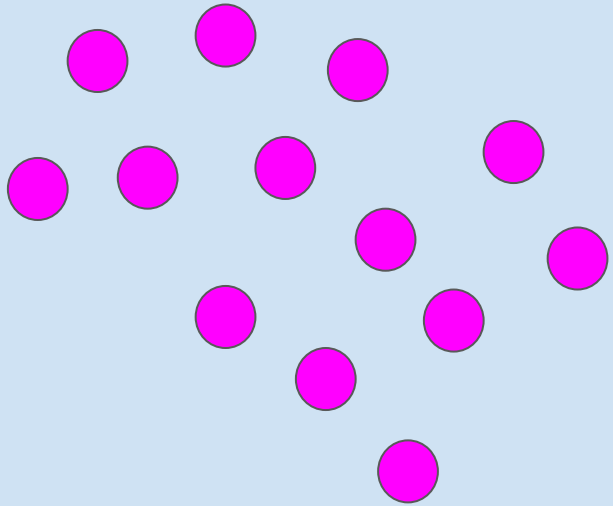
3 x 3 = 9

So the answer is:

$\frac{3}{5}$ of 15 = 9

Let’s try another example.

Find $\frac{2}{6}$ of 12



Step 1 : put the pictures *equally* into the same amount of groups as the denominator.

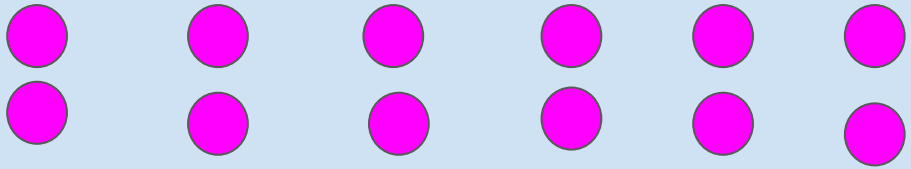
We do this by dividing the number by the denominator

12 ÷ 6 =2

We need to move the dots to make 6 groups of equal amounts.

Let’s try an example together.

Find $\frac{2}{6}$ of 12



Step 1 : We need to move the dots to make 6 groups of equal amounts.

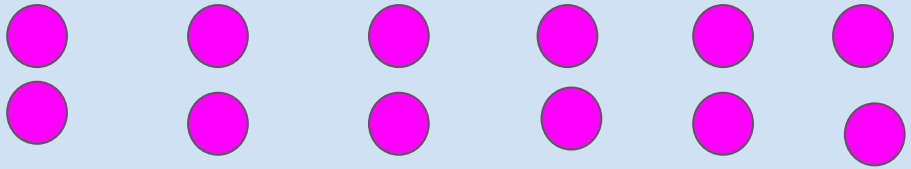
So we have 6 groups of 2 dots.

We do this by dividing the number by the denominator

12 ÷ 6 =2

Let’s try an example together.

Find $\frac{2}{6}$ of 12



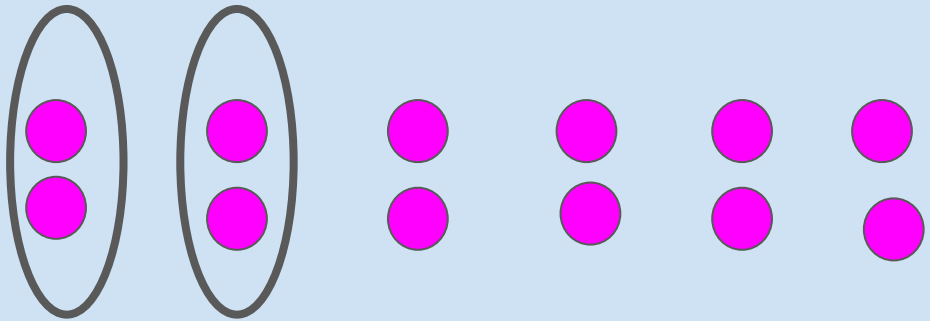
Step 2: circle the same amount of groups as the numerator, and add the amount of pictures.

Circle 2 (the numerator) groups of dots.

2 x 2 = 4

Let’s try an example together.

Find $\frac{2}{6}$ of 12



Step 2: Now we need to add the amount of dots that are in those circles together.

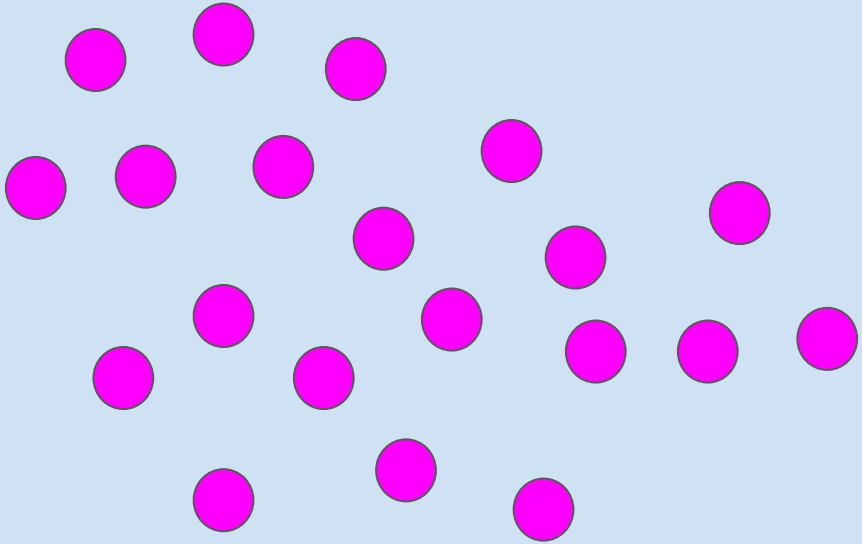
2 x 2 = 4

So the answer is:

$\frac{2}{6}$ of 12 = 4

Let’s try one last example.

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

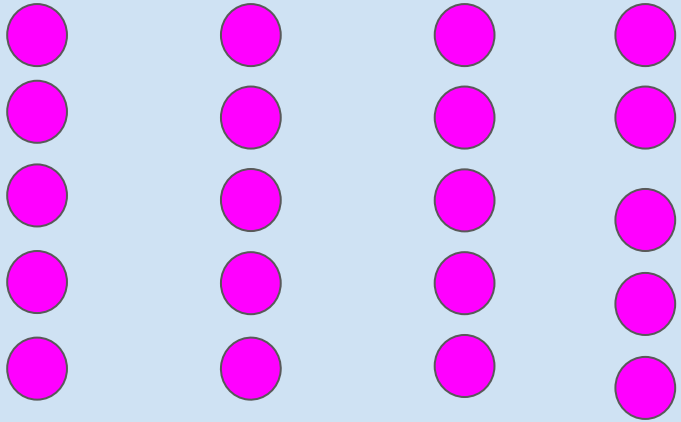


Step 1 : put the pictures *equally* into the same amount of groups as the denominator.

We need to move the dots to make 4 groups of equal amounts.

Let’s try an example together.

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



Step 1 : We need to move the dots to make 4 groups of equal amounts.

We do this by dividing the number by the denominator

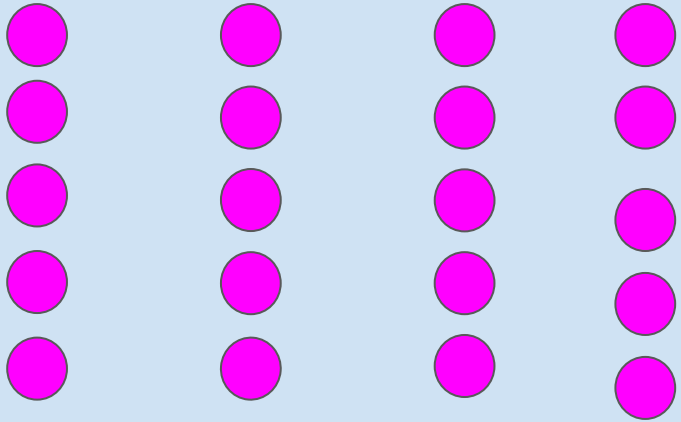
20 ÷ 4 =5

So we have 4 groups of 5 dots.

Let’s try an example together.

Find 3 of 20

4



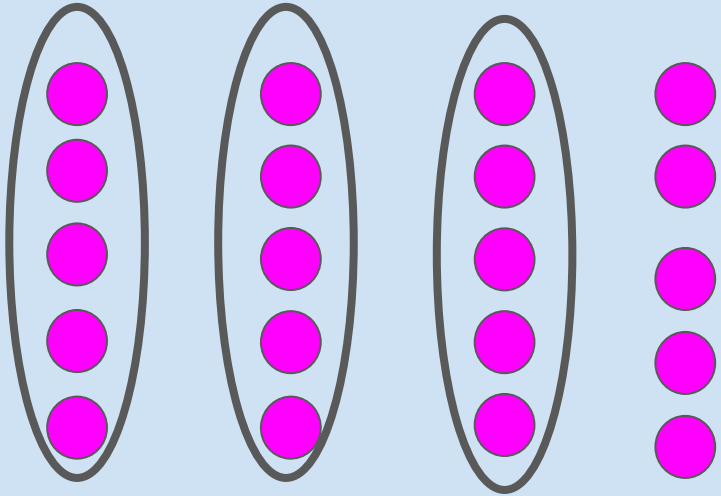
Step 2: circle the same amount of groups as the numerator, and add the amount of pictures.

5 x 3 = 15

Circle 3 groups of dots.

Let’s try an example together.

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



Step 2: Now we need to add the amount of dots that are in those circles together.

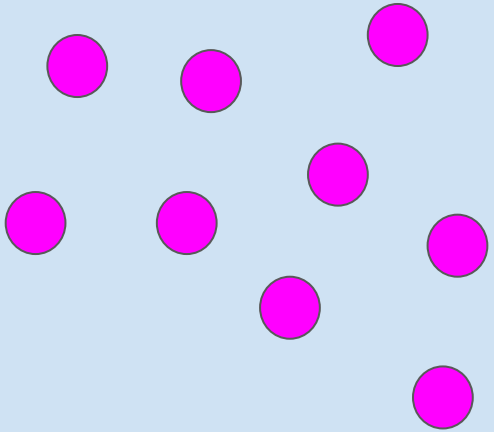
5 x 3 = 15

So the answer is:

$\frac{3}{4}$ of 20 = 15

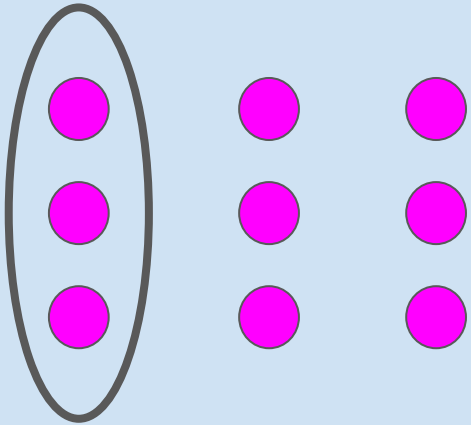
Try this question on your own! You can draw circles on a piece of paper.

Find $\frac{1}{3}$ of 9



Step 1: Make 3 equal groups.

Find $\frac{1}{3}$ of 9



Step 2: Circle 1 group. Because there is only one circle, it is only those dots that we need to count.

9 ÷ 3 = 3

3 x 1 = 3

$\frac{1}{3}$ of 9 = 3

Activities:
Fractions can be tricky, so take a moment to decide how confident you feel with solving these types of problems, and how much you want to challenge yourself!

Red - solve the fractions of amounts questions. The steps will be there to remind you.

Yellow - solve the fractions of amounts questions. The steps will be there to remind you, but try to cover them up if you feel confident!

Green - solve the fractions of amounts questions.