

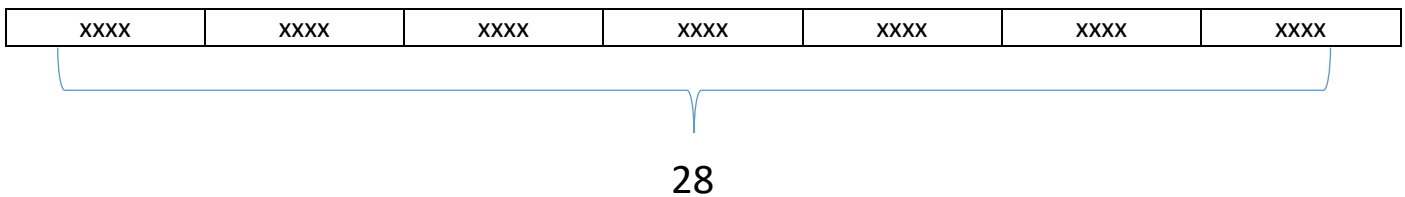
Can I find fractions of amounts?

Sometimes we need to find a fraction of a number. For example, if Class 5 had 28 children and $\frac{3}{7}$ were male, we could work out the NUMBER of boys in the group. Today's lesson will go through how to do this and then give you some questions so you can have a go yourself.

Step 1 – Divide by the denominator

First, we need to divide the number into the number of parts which make a whole – we use the denominator to do this. This tells us what $\frac{1}{7}$ is. We can show this using the bar method:

$\frac{1}{7}$ of 28



So, $28 \div 7 = 4$ which means $\frac{1}{7}$ of 28 = 4

Step 2 – Multiply by the numerator

Once we know the value of one part of the whole, we can multiply this value by the number of parts we need to know about (the numerator). In this case we want to know how many boys there are in the class and we are told that $\frac{3}{7}$ are boys.

$$4 \times 3 = 12$$

Step 3 – Give the answer separately from your working (and remember to include units)

Now we know that $\frac{3}{7}$ of 28 is 12, so we can answer the question – how many boys are in the class?

12 boys

Steps summary

1. Divide the number by the denominator
2. Multiply the answer from step 1 by the numerator
3. Give answer, including units if necessary.

Marvellous

Use this method to work out the following:

- 1) $\frac{1}{7}$ of 56
- 2) $\frac{1}{10}$ of 120
- 3) $\frac{1}{9}$ of 27
- 4) $\frac{1}{5}$ of 35
- 5) $\frac{2}{9}$ of 45
- 6) $\frac{6}{7}$ of 42
- 7) $\frac{3}{11}$ of 99

Magnificent

Use the method to work out the following:

- 1) $\frac{3}{8}$ of 560
- 2) $\frac{1}{10}$ of 120
- 3) $\frac{7}{9}$ of 7200
- 4) $\frac{5}{6}$ of 3
- 5) $\frac{5}{7}$ of 4.2
- 6) $\frac{3}{4}$ of 2.4kg
- 7) $\frac{3}{5}$ of 1m

Mind-blowing

- 1) $\frac{2}{3}$ of 360 miles
- 2) $\frac{3}{7}$ of 2.1 litres
- 3) Sammy thinks $\frac{2}{3}$ of 1.2 m is 1.8 m. Can you identify his error when he worked out this answer?
- 4) What's the missing fraction?
_____ of 120 = 100
- 5) Complete the following sentence using < > or =

a. $\frac{3}{5}$ of 75 $\frac{1}{2}$ of 80

b. $\frac{3}{7}$ of 49 $\frac{4}{6}$ of 48

Marvellous

- 1) $\frac{1}{7}$ of 56 = 8
- 2) $\frac{1}{10}$ of 120 = 12
- 3) $\frac{1}{9}$ of 27 = 3
- 4) $\frac{1}{5}$ of 35 = 7
- 5) $\frac{2}{9}$ of 45 = 10
- 6) $\frac{6}{7}$ of 42 = 36
- 7) $\frac{3}{11}$ of 99 = 27

Magnificent

- 1) $\frac{3}{8}$ of 560 = 210
- 2) $\frac{1}{10}$ of 120 = 12
- 3) $\frac{7}{9}$ of 7200 = 5600
- 4) $\frac{5}{6}$ of 3 = 2.5
- 5) $\frac{5}{7}$ of 4.2 = 3
- 6) $\frac{3}{4}$ of 2.4kg = 1.8
- 7) $\frac{3}{5}$ of 1m = 60cm

Mind-blowing

- 1) 240
- 2) 0.9 litres
- 3) Divided by numerator,
multiplied by denominator
- 4) $\frac{5}{6}$
- 5) a. >
b. <