

Key Vocabulary

numerator

denominator

unit fraction

non-unit fraction

equivalent

quantities

whole

halves

thirds

quarters

fifths

sixths

sevenths

eighths

ninths

tenths

elevenths

twelfths

quantities

13.07.20

I can find fractions of quantities.

<https://www.youtube.com/watch?v=PgrF1TYXP6Y>

Watch this video about finding fractions of quantities. Have a go at doing what she is explaining. Use objects in your house.

Can you see the connection with division?

Finding Fractions of Amounts

Finding fractions of amounts is simple when we use the bar model to help us.

Watch this clip to see how it is done.

<https://www.youtube.com/watch?v=cYJqbwykcJk>

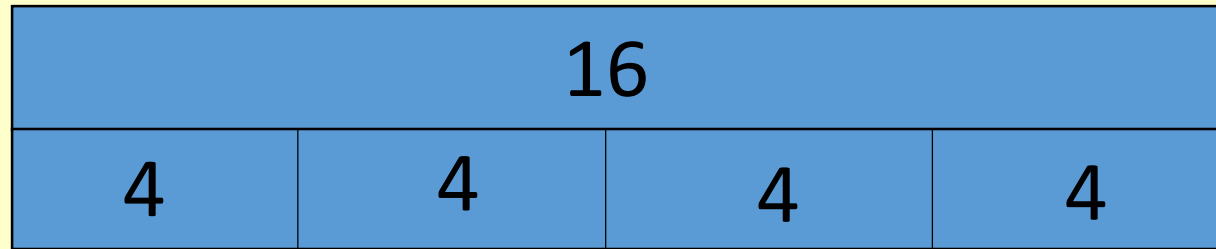
Fractions of Quantities							
To find a fraction of a number, divide by the denominator and multiply by numerator.							
To find quarters of 20:				To find eighths of 56:			
20				56			
5	5	5	5	7	7	7	7
$\frac{1}{4}$ of 20 = 5	$\frac{2}{4}$ of 20 = 10	$\frac{3}{4}$ of 20 = 15	$\frac{4}{4}$ of 20 = 20	$\frac{1}{8}$ of 56 = 7	$\frac{2}{8}$ of 56 = 14	$\frac{3}{8}$ of 56 = 21	$\frac{4}{8}$ of 56 = 28
				$\frac{5}{8}$ of 56 = 35	$\frac{6}{8}$ of 56 = 42	$\frac{7}{8}$ of 56 = 49	$\frac{8}{8}$ of 56 = 56

What our bar models will look like:

$$\frac{1 \text{ of } 16}{4}$$

$$16 \div 4 = 4$$

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



← Whole number

Your denominator tells you how many parts to split your bottom bar into.

Our denominator is 4 so we split our second bar into 4 equal parts.

What I have to remember:

What is the whole?

What fraction of the whole are we finding?

How many equal parts will I divide the whole into?

Write a list of top tips to help you remember how to find fractions of quantities:

-
-
-
-

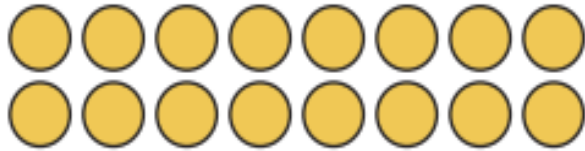
You might draw an image to help you know what you need to do.

Activities:

1.



1) Clara has 16 cupcakes.



a) Use the counters above to represent Clara's cupcakes and find:

$$\frac{1}{2} \text{ of } 16 = \square$$

$$\frac{1}{4} \text{ of } 16 = \square$$

$$\frac{1}{8} \text{ of } 16 = \square$$

b) Use the answers to the calculations above to help find:

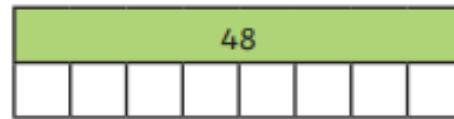
$$\frac{2}{8} \text{ of } 16 = \square$$

$$\frac{3}{4} \text{ of } 16 = \square$$

$$\frac{5}{8} \text{ of } 16 = \square$$

2.

Use this bar model to find and represent:



$$\frac{1}{8} \text{ of } 48 = 48 \div 8 = \square$$

$$\frac{2}{8} \text{ of } 48 = \square$$

$$\frac{3}{8} \text{ of } 48 = \square$$

$$\frac{4}{8} \text{ of } 48 = \square$$

$$\frac{5}{8} \text{ of } 48 = \square$$

$$\frac{6}{8} \text{ of } 48 = \square$$

$$\frac{7}{8} \text{ of } 48 = \square$$

$$\frac{8}{8} \text{ of } 48 = \square$$

3.

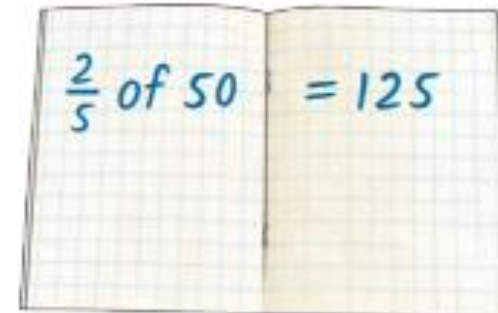
Draw a bar model to solve the problem.
Finn drinks $\frac{5}{9}$ of a 630ml bottle of water.

a) How many ml did Finn drink?

b) How many ml are left in the bottle?

4.

Explain the mistake.



Challenge:

1. True or False? Convince me.



$\frac{3}{4}$ of 32 is greater
than $\frac{12}{16}$ of 32.

3. Use all the digit cards once to complete this calculation.



$$\begin{array}{r} \square \\ \hline \square \end{array} \text{ of } 270 = \square$$

2. Complete the calculations:

$$\frac{\square}{5} \text{ of } 30 = 24$$

$$\frac{2}{3} \text{ of } \square = 40$$