

## Fraction facts

**Focus of activity:** Finding simple unit and related non-unit fractions of amounts ( $\frac{1}{3}$ s,  $\frac{1}{4}$ s and  $\frac{1}{5}$ s).

### Working together: conceptual understanding

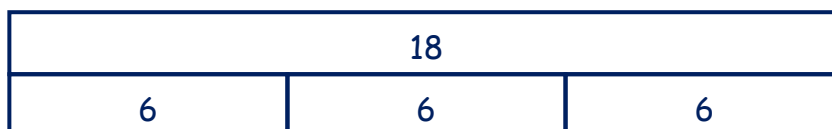
- Give each child a strip of 20 stars (see child instructions). Ask them to fold the strip into quarters. *How many stars are in each quarter?* Write  $\frac{1}{4}$  of 20 is 5. *How many are in two quarters?* Discuss how else this can be written.  $\frac{1}{2}$  of 20 is 10. *How many are in three quarters?* Write  $\frac{3}{4}$  of 20 is 15. *How many in four quarters? All of them!*
- Sketch a bar model representation.



- Explain that this shows 20 split into four equal parts, i.e. quarters. *What number needs to be written in each quarter?*
- Ask children to now draw lines on the strip so that it is divided into five equal parts. *What do we call each part? How many are in each part?*
- Together write a list of fractions facts about the strip:
  - $\frac{1}{5}$  of 20 is 4
  - $\frac{2}{5}$  of 20 is 8
  - $\frac{3}{5}$  of 20 is 12
  - $\frac{4}{5}$  of 20 is 16
  - $\frac{5}{5}$  of 20 is 20
- Sketch a bar model representation.



- Explain that this shows 20 split into five equal parts, i.e. fifths. *What number needs to be written in each fifth?*
- Give each child a strip of 18 stars (see child instructions). Ask children to now draw lines on the strip so that it is divided into three equal parts. *What do we call each part? How many are in each part?*
- Sketch a bar model representation. Explain that this shows 18 split into three equal parts, i.e. thirds. *What number needs to be written in each third?*



- Together write a list of fractions facts:
  - $\frac{1}{3}$  of 18 is 6
  - $\frac{2}{3}$  of 18 is 12
  - $\frac{3}{3}$  of 18 is 18

### Up for a challenge?

Draw your own bar model to show finding quarters of 40. Draw your own bar model to show finding thirds of 30.

### Now it's the children's turn:

- Children identify the number which belongs in each fraction of a bar model ( $\frac{1}{3}$ ,  $\frac{1}{4}$  or  $\frac{1}{5}$ ), then write a list of fraction facts about the bar model.
- Go round the group and mark their facts as they write them, e.g. initially after the first set.

### S-t-r-e-t-c-h:

If children cope well, ask them to draw their own bar models to show  $\frac{1}{3}$ s of 15 and  $\frac{1}{4}$ s of 28.

### Things to remember

Remember that to find a non-unit fraction of an amount (fraction with a number other than 1 at the top) we find one fraction of the amount and then multiply to find the non-unit fraction of the amount, e.g. find  $\frac{1}{4}$ , then multiply by 3 to find  $\frac{3}{4}$ . Ask a child to explain how they decided what number went in each part of the bar. Draw out the link with times tables.

You may want to add something that has emerged from the activity. This may refer to misconceptions or mistakes made.

Resources	Outcomes
<ul style="list-style-type: none"><li>• Fraction strips for 20 and 18 (see child instructions)</li></ul>	<ol style="list-style-type: none"><li>1. Children can use bar model pictures to find <math>\frac{1}{3}</math>s, <math>\frac{1}{4}</math>s and <math>\frac{1}{5}</math>s of numbers.</li><li>2. Children begin to draw their own bar model pictures to find fractions of amounts.</li></ol>

## Fraction facts

*Work in pairs, but write your answers on your own sheet*

**What to do:**

- Work out what number needs to go in each empty section of the bar model. Then write a list of fraction facts to go with each.

12			

$\frac{1}{4}$  of 12 is

$\frac{1}{2}$  of 12 is

$\frac{3}{4}$  of 12 is

$\frac{4}{4}$  of 12 is

12		

$\frac{1}{3}$  of 12 is

$\frac{2}{3}$  of 12 is

$\frac{3}{3}$  of 12 is

**Things you will need:**

- A pencil



- Choose at least four other bar models. Work out what number needs to go in each empty section of the bar model. Then write a list of fraction facts to go with each.

***S-t-r-e-t-c-h:***

Draw your own bar models to show  $\frac{1}{3}$ s of 15 and  $\frac{1}{4}$ s of 28.

**Learning outcomes:**

- I can use bar models to find  $\frac{1}{3}$ s,  $\frac{1}{4}$ s and  $\frac{1}{5}$ s of numbers.
- I am beginning to draw my own bar models to find fractions of amounts.

## Fraction facts

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# Fraction facts

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