Fraction and decimal equivalents (3)

Use division to convert fractions to decimals

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1 Work out the decimal equivalent for each of these fractions.

Example

$\frac{3}{4} = 3 \div 4 = 0{\cdot}75$

a $\frac{1}{4}$ **b** $\frac{2}{5}$ **c** $\frac{7}{10}$ **d** $\frac{6}{8}$ **e** $\frac{3}{10}$

f $\frac{4}{5}$ **g** $\frac{9}{10}$ **h** $\frac{2}{8}$ **i** $\frac{4}{20}$ **j** $\frac{6}{16}$

2 Copy this table.

Fraction	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{9}$	$\frac{1}{10}$
Decimal									

a Fill in the decimal equivalents that you know.

b Estimate the decimal equivalents that you do not know.

c Work out the answers to the decimal equivalents you do not know. Check if your estimates were close.

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1 Estimate the decimal equivalent for each of these fractions.

a $\frac{5}{8}$ **b** $\frac{5}{11}$ **c** $\frac{6}{6}$ **d** $\frac{7}{12}$ **e** $\frac{5}{9}$ **f** $\frac{1}{13}$

g $\frac{6}{14}$ **h** $\frac{3}{7}$ **i** $\frac{11}{14}$ **j** $\frac{6}{15}$ **k** $\frac{9}{16}$ **l** $\frac{13}{15}$

2 Work out the decimal equivalents for the fractions in Question 1. Round each decimal to these degrees of accuracy:

i 2 decimal places

ii 3 decimal places

3 Compare your estimates and the decimal equivalents from Questions 1 and 2. Which was your closest estimate? Why do you think that was?

4 The Williams family have made a cake.

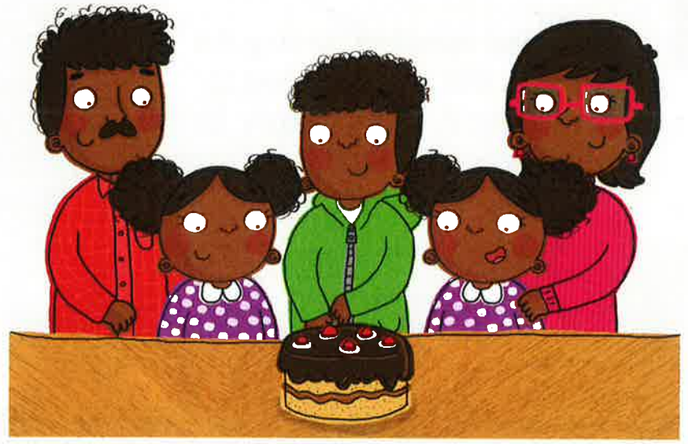
- Dad ate 19% of the cake.
- Mum ate $\frac{1}{8}$ of the cake.
- The twins ate 0·15 of the cake each.
- Their brother ate $\frac{1}{5}$.

a Who ate the most cake?

b How much of the cake is left?

c How much of the cake did Mum and Dad eat altogether?

d How much of the cake did the three children eat altogether?



Challenge 3

1 Work out the fraction and decimal equivalents for these percentages. Make sure the fraction is expressed in its simplest form.

You will need:
- calculator

a 54% **b** 92% **c** 39% **d** 22% **e** 3%

f 85% **g** 48% **h** 15% **i** 64% **j** 35%

2 How many fractions can you find that have a decimal equivalent from 0·5 to 0·7? How will you start to investigate this? What do you already know that can help you?