# Fractions to decimals (2)

**1** Fractions can be expressed as divisions.

For example, $\frac{1}{2} = 1 \div 2$

Write the fractions as divisions.

a) $\frac{1}{3} = \boxed{1} \div \boxed{3}$

b) $\frac{2}{3} = \boxed{2} \div \boxed{3}$

c) $\frac{4}{7} = \boxed{4} \div \boxed{7}$

d) $\frac{\boxed{3}}{\boxed{5}} = 3 \div 5$

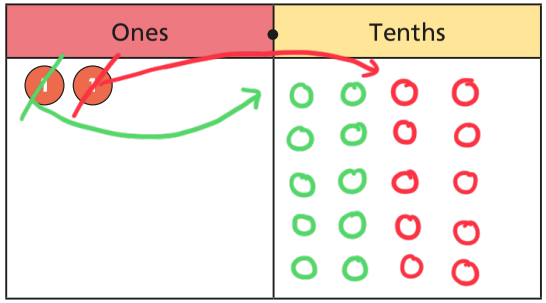
e) $\frac{\boxed{3}}{7} = 3 \div \boxed{7}$

f) $\frac{1}{10} = \boxed{1} \div \boxed{10}$

**2** Use place value counters to find the decimal equivalent of $\frac{2}{5}$

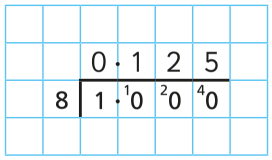
You can draw on the place value chart to help you with exchanging.

$\frac{2}{5} = 2 \div 5 = \boxed{0.4}$




**3** Fractions can be converted to decimals by using the short division method.

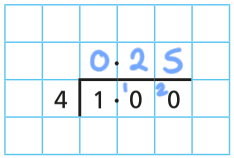
For example, $\frac{1}{8} = 1 \div 8$




$\frac{1}{8} = 0.125$

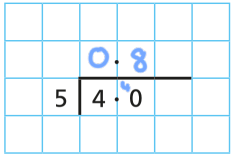
Use the short division method to find the decimal equivalent of the fractions.

a)



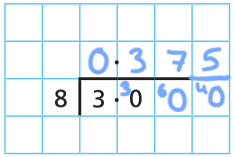

$\frac{1}{4} = \boxed{0.25}$

b)




$\frac{4}{5} = \boxed{0.8}$

c)




$\frac{3}{8} = \boxed{0.375}$

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**4** Find the decimal equivalents for these fractions.

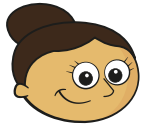
a) $\frac{7}{8}$ = 0·875

c) $\frac{1}{16}$ = 0·0625

b) $\frac{7}{5}$ = 1·4

d) $\frac{9}{16}$ = 0·5625

**5**



To find $\frac{19}{20}$ as a decimal, I found $\frac{1}{20}$ as a decimal, then took it away from 1

Here is Dora's working out.

```
        0 . 0 5
    ┌──────────
2 0 │ 1 . 1 0 10 0
```

1 − 0.05 = 0.95

$\frac{19}{20}$ = 0.95

Use Dora's method to find the decimal equivalent for $\frac{49}{50}$

```
      0 . 0 2
    ┌──────────
5 0 │ 1 . 1 0 10 0
```

1 − 0·02 = 0·98

0·98

**6**



I converted $\frac{1}{2}$ to a decimal and got the answer 2

Jack is incorrect.

Explain the mistake that Jack has made.

He did 2 ÷ 1 when he should have done 1 ÷ 2

**7** Filip is thinking of a fraction.

When he converts it to a decimal, it is smaller than 0.5 but greater than 0.4

What fraction could Filip be thinking of?

E.g $\frac{9}{20}$

Are there any other possible answers? Talk to a partner.

**8** Use the short division method to find the decimal equivalent of $\frac{1}{3}$

0·33333...

Compare answers with a partner.

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