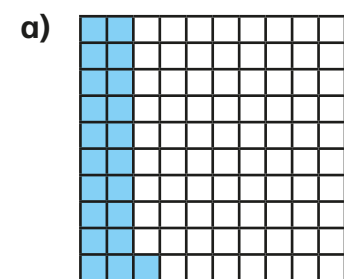# Convert fluently between simple fractions, decimals and percentages
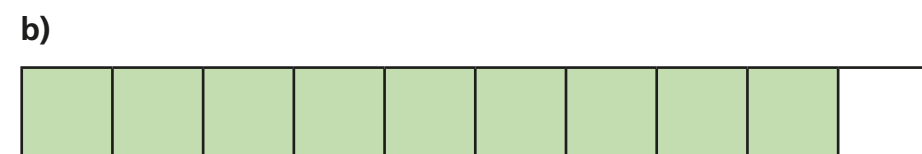
1 What fraction, decimal and percentage of each diagram are shaded?
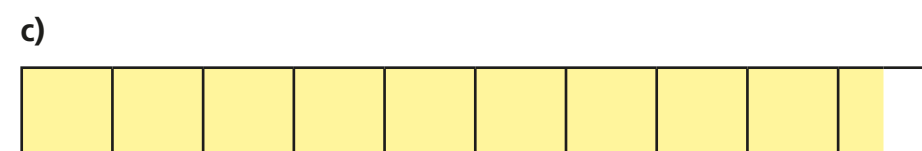
a)

fraction = $\frac{21}{100}$

decimal = $0 \cdot 21$

percentage = 21%

b)

fraction = $\frac{9}{10}$ decimal = $0 \cdot 9$ percentage = 90%

c)

fraction = $\frac{95}{100}$ decimal = $0 \cdot 95$ percentage = 95%

2 What fraction, decimal and percentage of the bar model is shaded?

fraction = $\frac{4}{5}$ decimal = $0 \cdot 8$ percentage = 80%

3 **a)** Sort the statements into those that are correct and those that are incorrect.

| 0.09 is the same as $\frac{9}{10}$ | 25% is equivalent to $\frac{1}{4}$ |

| $\frac{7}{100}$ is equal to 0.07 | 50% is the same as 0.05 |

| $\frac{3}{10}$ is equivalent to 30% | 0.4 is the same as $\frac{1}{4}$ |

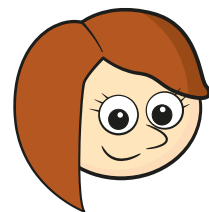| Correct statements	Incorrect statements
$\frac{7}{100}$ is equal to $0 \cdot 07$ $\frac{3}{10}$ is equivalent to 30% 25% is equivalent to $\frac{1}{4}$	$0 \cdot 09$ is the same as $\frac{9}{10}$ 50% is the same as $0 \cdot 05$ $0 \cdot 4$ is the same as $\frac{1}{4}$

b) For the ones that are incorrect, change the statement to make it correct.

E.g. $0 \cdot 09$ is the same as $\frac{9}{100}$

50% is the same as $0 \cdot 5$

$0 \cdot 4$ is the same as $\frac{2}{5}$

4

$\frac{4}{5}$ is the same as 45%.
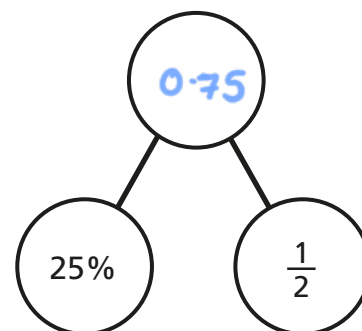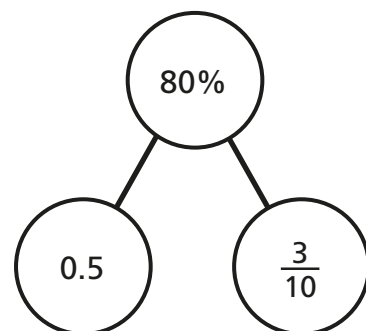
Is Rosie correct? **NO**

Explain your reasoning.

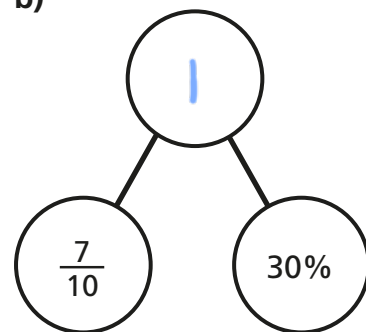$\frac{4}{5} = \frac{8}{10} = \frac{80}{100} = 80\%$

5 Complete the missing values.
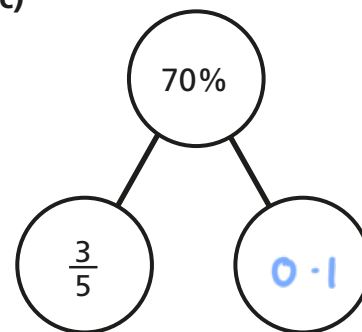
Give your answers as decimals. One has been done for you.

a)

80%

0.5 $\frac{3}{10}$

0.75

25% $\frac{1}{2}$

b)

1

$\frac{7}{10}$ 30%

c)

70%

$\frac{3}{5}$ 0.1

6 Complete the statements with possible decimal answers.

E.g.

a) $\frac{1}{5}$ < 0.3 < 0.5 < 60%

b) 5% < 0.07 < $\frac{1}{10}$ < 0.4

c) $\frac{3}{100}$ < 0.21 < 30% < 0.99

7 Tick the odd one out.
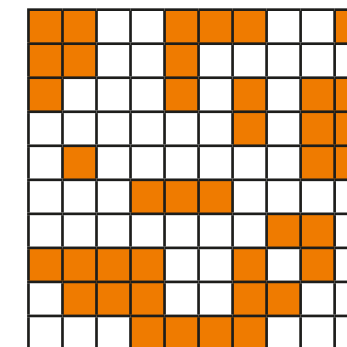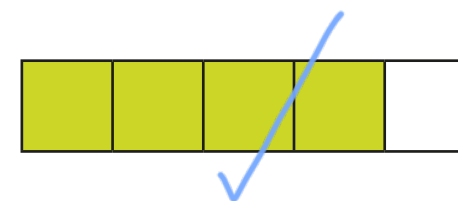
0.4

two-fifths

How did you work this out?

All the others are equivalent to 0.4

Create your own problem like this for a partner.