Equivalent fractions, decimals and percentages

White Rose MATHS

1 Rosie makes a number on a 100 bead string.
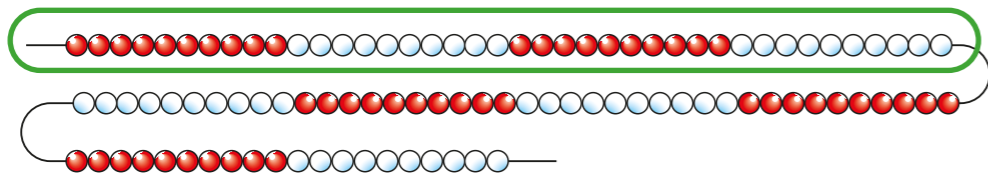
a) What fraction of the bead string is circled?
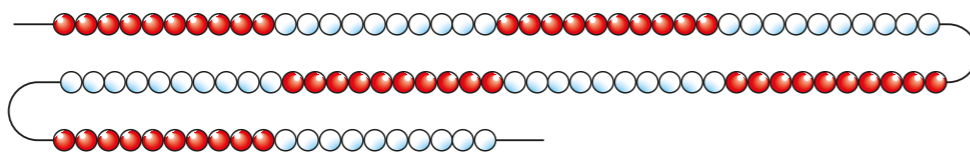
b) Write the fraction as a decimal.
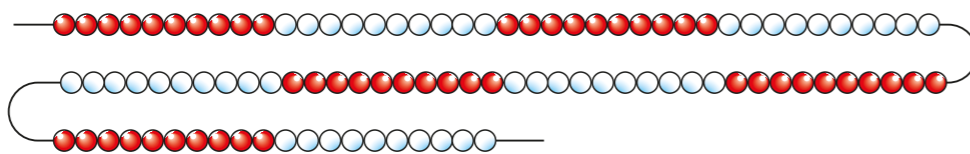
c) Write the decimal as a percentage.
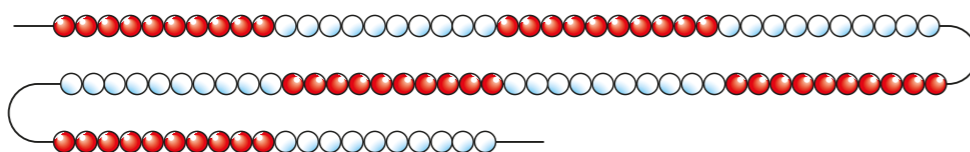
___ %

2 Circle the value on each 100 bead string.
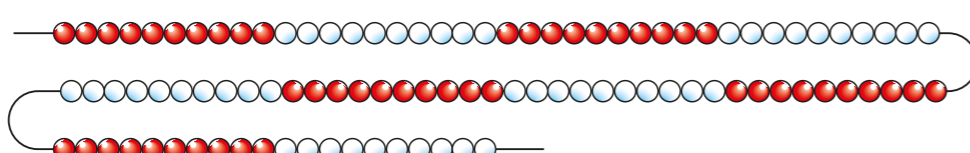
a) 70%

b) 0.8

c) $\frac{3}{10}$

d) $\frac{1}{2}$

3 **a)** What fraction, decimal and percentage of the hundred square is shaded?

Hundred square	Fraction	Decimal	Percentage

Compare answers with a partner.
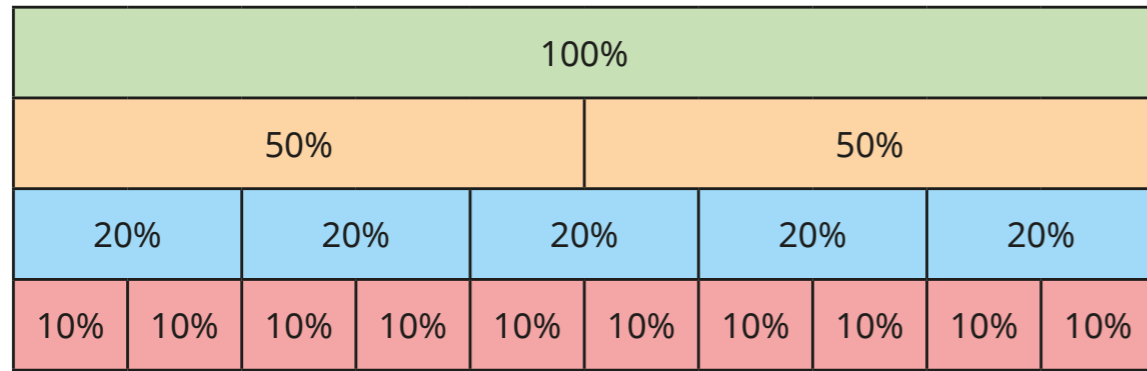
Did you get the same answers?

Did you simplify any of your answers?

b) Complete the table.

Quarters	Hundredths	Decimal
$\frac{1}{4}$	$\frac{\square}{100}$	
$\frac{\square}{4}$	$\frac{50}{100}$	
		0.75

4 Use the diagram to help you complete the equivalence statements.

100%									
50%					50%				
20%		20%		20%		20%		20%	
10%	10%	10%	10%	10%	10%	10%	10%	10%	10%

a) 1 whole = [ ] %

$\frac{1}{2}$ = [ ] %

$\frac{1}{5}$ = [ ] %

$\frac{1}{10}$ = [ ] %

b) $\frac{1}{5}$ = [ ] = [ ] %

$\frac{2}{5}$ = [ ] = [ ] %

$\frac{3}{5}$ = [ ] = [ ] %

$\frac{4}{5}$ = [ ] = [ ] %

$\frac{5}{5}$ = [ ] = [ ] %

c) $\frac{1}{10}$ = [ ] = [ ] %

$\frac{3}{10}$ = [ ] = [ ] %

$\frac{7}{10}$ = [ ] = [ ] %

$\frac{9}{10}$ = [ ] = [ ] %

5 Filip gets some money for his birthday.

He spends $\frac{2}{5}$ of the money and saves the rest.

What percentage of his money does Filip save? [ ] %

6 Dora is doing a school survey.

She compares how many children wear glasses in Class 4 and Class 5

- $\frac{1}{5}$ of the children in Class 4 wear glasses.
- 25% of the children in Class 5 wear glasses.
- Both classes have the same number of children.

Which class has more children who wear glasses? _____

Explain your reasoning.

_____

_____

7 There are 30 children in Class 5

- $\frac{2}{5}$ have brown hair.
- 50% have blonde hair.

a) What percentage of children do **not** have brown or blonde hair?

[ ] %

b) What information did you **not** need to know to work out the answer?

_____

8

$$\frac{1}{4} = 25\% = \frac{25}{100} = \frac{250}{1000}$$

Use this fact to convert $\frac{1}{8}$ and $\frac{3}{8}$ to decimals.

$\frac{1}{8}$ = [ ] $\frac{3}{8}$ = [ ]