



1)
 a) $\frac{40}{100} = 40\%$
 b) $\frac{64}{100} = 64\%$
 c) $\frac{74}{100} = 74\%$

3)
 a) 60%
 b) 40%
 c) $\frac{1}{4}$

2)
 a) $\frac{7}{10} = 70\%$
 b) $\frac{2}{10} = 20\%$
 c) $\frac{9}{10} = 90\%$

1) Felix has mistakenly thought that all percentages are the same as the numerator. However, this is only the case when the denominator is 100. The correct answer is 40%, not 4%.



2) 65% is the odd one out because all of the others are equivalent to 75%.

3) Drew is incorrect as $\frac{3}{15}$ can be converted to a percentage by finding an equivalent fraction.

$$\frac{3}{15} = \frac{1}{5} = 20\%$$

4) Jia is correct. $\frac{6}{8}$ is equivalent to $\frac{3}{4}$ and this is equivalent to 75%.

1) Bartek is has taken 50 marbles. Hari has taken 120 marbles.

$200 - 170 = 30$ so there are 30 marbles left.

2) $\frac{1}{4} = 25\%$ so 25% of the sweets are red.

$100\% - 25\%$ (red sweets) = 75% of the sweets are green and blue.

If there are twice as many green sweets as blue sweets, 50% of the sweets are green and 25% of the sweets are blue.

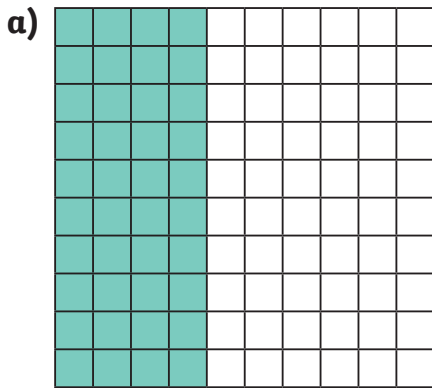
3) $\frac{12}{16}$, 66%, $\frac{3}{5}$, 53%, $\frac{1}{4}$



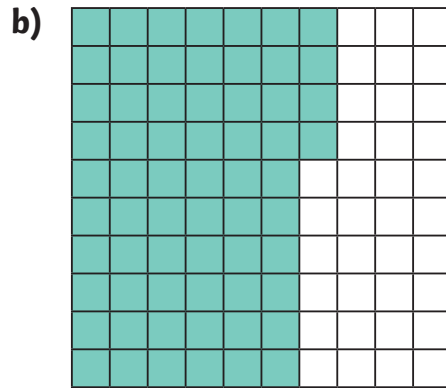
Percentages as Fractions



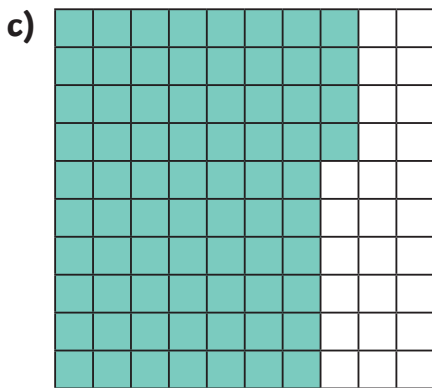
1) For each 100 square, find the fraction and percentage that is shaded.



$$\frac{\square}{100} = \text{ _____\% }$$

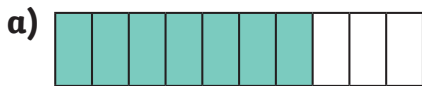


$$\frac{\square}{100} = \text{ _____\% }$$



$$\frac{\square}{100} = \text{ _____\% }$$

2) For each bar model, find the fraction and percentage that is shaded.



$$\frac{\square}{10} = \text{ _____\% }$$



$$\frac{\square}{10} = \text{ _____\% }$$



$$\frac{\square}{10} = \text{ _____\% }$$

3) Complete the number statements.

a) $\frac{1}{5} = 20\%$ so $\frac{3}{5} = \text{ _____\% }.$

b) $\frac{4}{10} = \text{ _____\% }$

c) $\frac{\square}{\square} = 25\%$



Percentages as Fractions

1) Explain what mistake Felix has made.



Felix

$\frac{4}{10}$ as a percentage is 4%.

2) Which is the odd one out? Explain your reasoning.

$$\frac{6}{8}$$

$$75\%$$

$$\frac{3}{4}$$

$$\frac{9}{12}$$

$$65\%$$

3) Do you agree with Drew? Explain why.



Drew

I cannot write $\frac{3}{15}$ as a percentage because 15 is not a factor of 100.

4) Joseph and Jia are converting the same fraction to a percentage. Who is correct?

Explain how you know.



Joseph

$\frac{6}{8}$ as a percentage is 60%.



Jia

$\frac{6}{8}$ as a percentage is 75%.

Percentages as Fractions



1) There are 200 marbles in a jar.



Bartek

I have taken $\frac{6}{10}$.

I have taken 25%.



Hari

How many marbles are left in the jar?

2) Bartek and Jia have 100 sweets to put into party bags. Use the clues to work out what percentage of the sweets are green and blue.



Bartek

$\frac{1}{4}$ of the sweets are red.

There are twice as many green sweets as blue sweets.



Jia

3) Write the fractions and percentages in descending order.

$\frac{1}{4}$

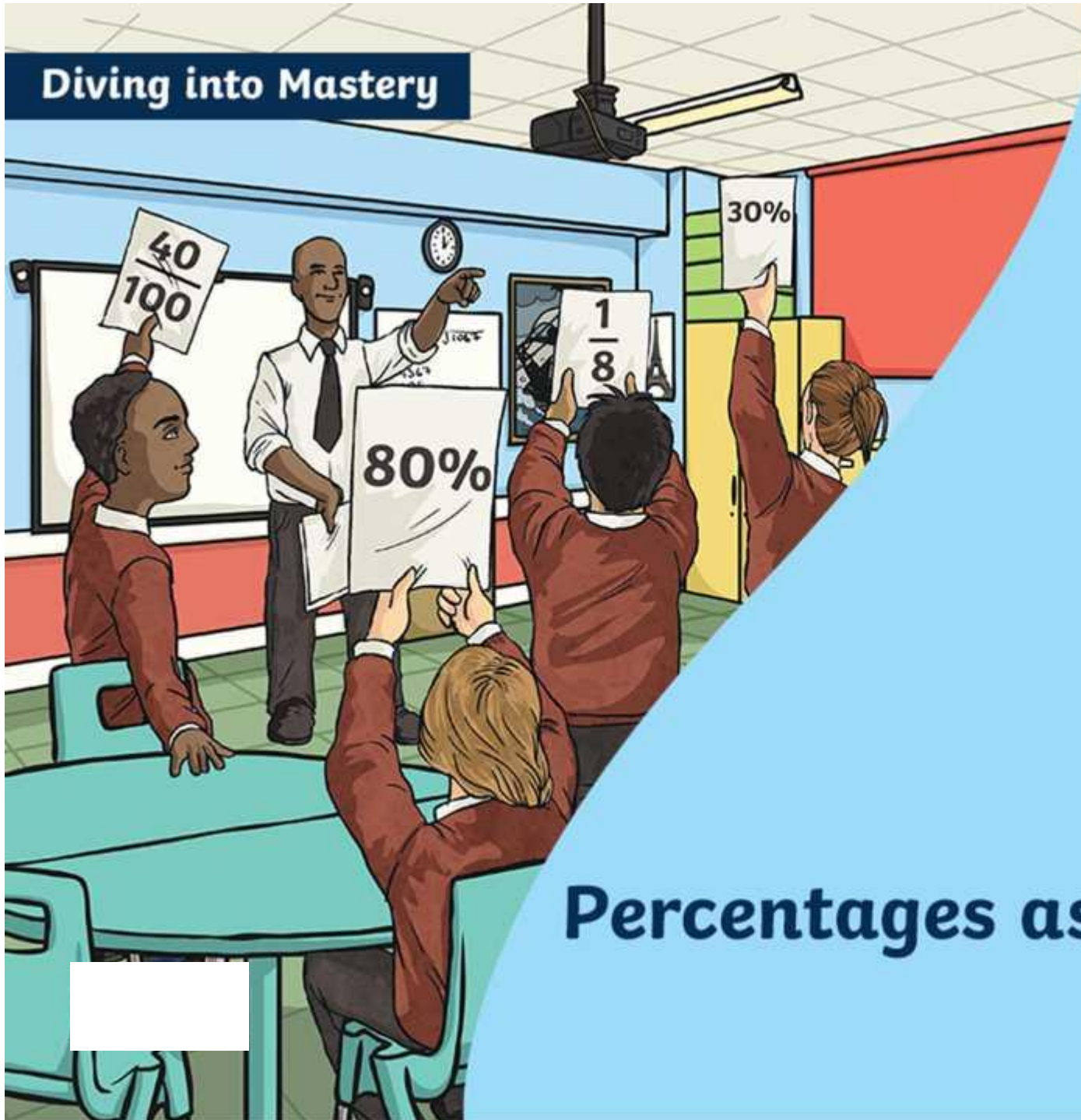
$\frac{3}{5}$

53%

$\frac{12}{16}$

66%

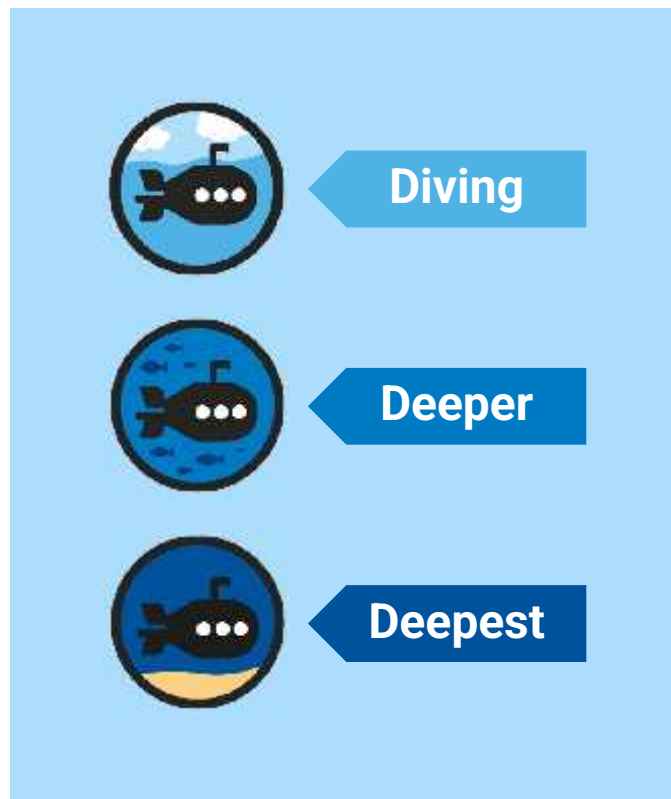
Diving into Mastery



Percentages as Fractions

Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:

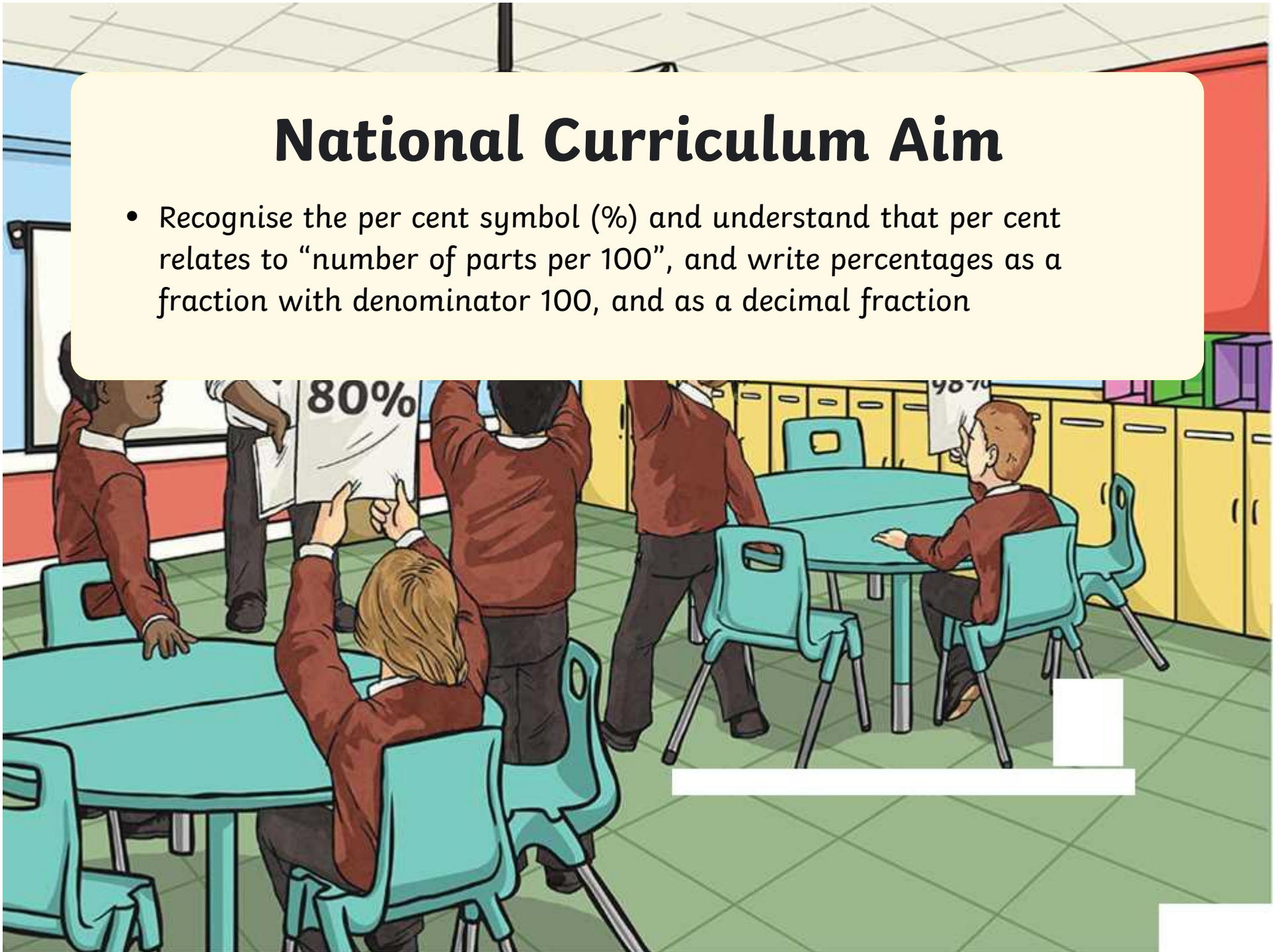


These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

National Curriculum Aim

- Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per 100”, and write percentages as a fraction with denominator 100, and as a decimal fraction

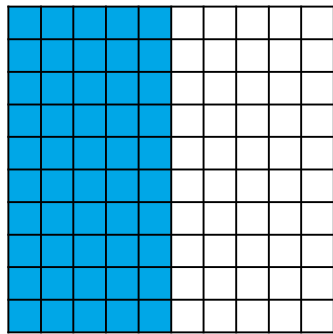


Percentages as Fractions

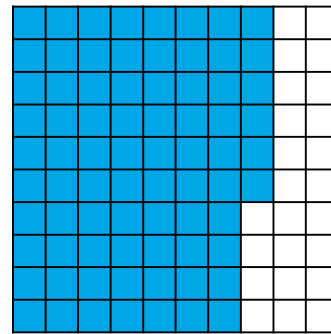
Diving



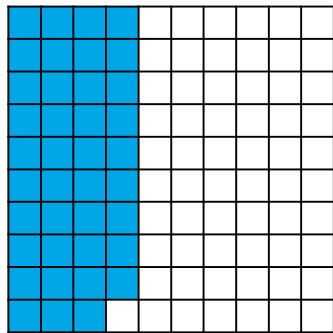
For each 100 square, find the fraction and percentage that is shaded.



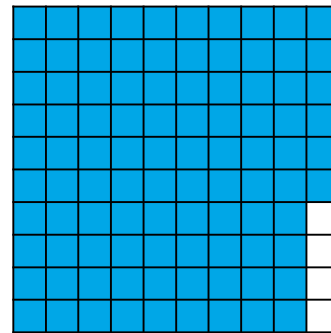
$$\frac{\square}{100} = \underline{\hspace{2cm}} \%$$



$$\frac{\square}{100} = \underline{\hspace{2cm}} \%$$



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$$\frac{\square}{100} = \underline{\hspace{2cm}} \%$$

Percentages as Fractions

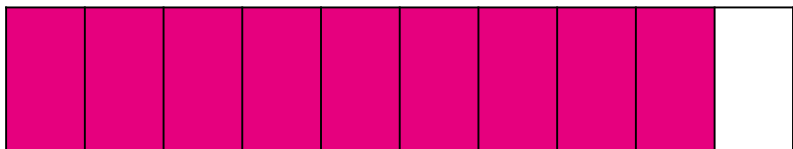
Diving



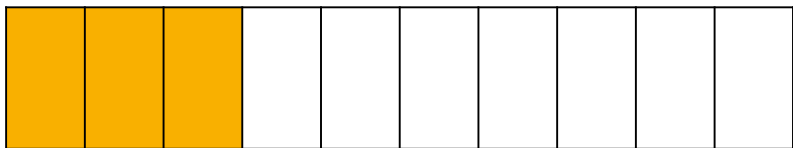
For each bar model, find the fraction and percentage that is shaded.



$$\frac{\square}{10} = \underline{\quad} \%$$



$$\frac{\square}{10} = \underline{\quad} \%$$



$$\frac{\square}{10} = \underline{\quad} \%$$



Explain what mistake Elias has made.



Elias

$\frac{7}{10}$ as a percentage is 7%.

Percentages as Fractions

Deeper

Do you agree with Joseph? Explain your reasoning.



Joseph

I cannot write $\frac{3}{12}$ as a percentage because 12 is not a factor of 100.

Percentages as Fractions

Deepest

Use the clues to work out what percentage of the marbles are red and what percentage of the marbles are purple.



Amrit

$\frac{1}{4}$ of the marbles are blue.

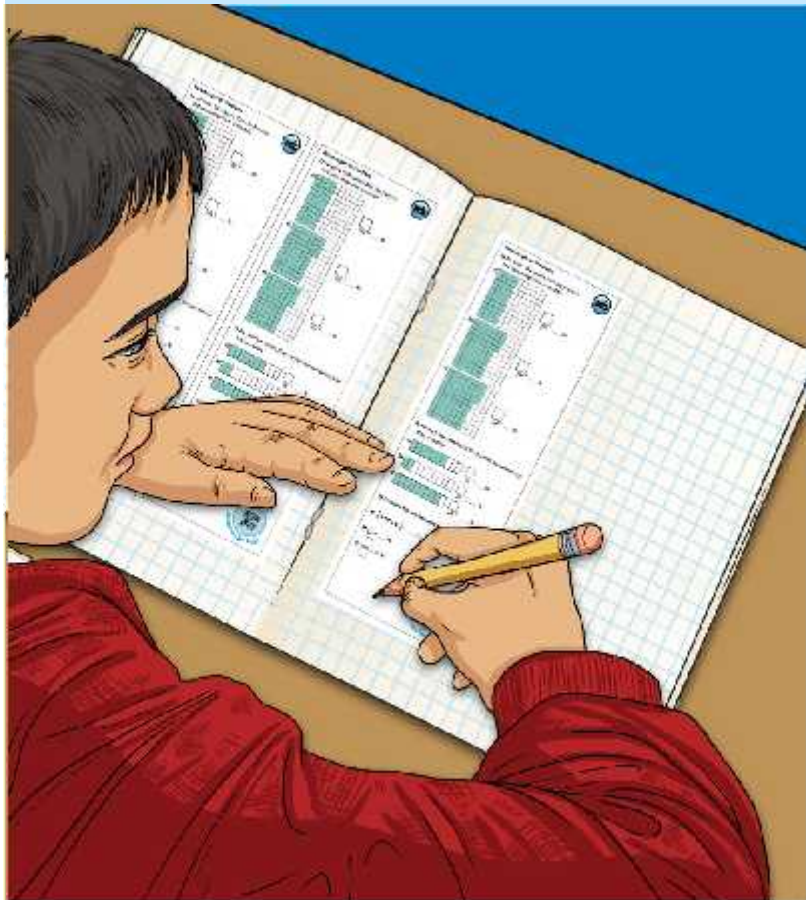
There are twice as many purple marbles as there are red marbles.



Abi

Percentages as Fractions

Dive in by completing your own activity!



Percentages as Fractions

1) For each 100 square, find the fraction and percentage that is shaded.

a) %

b) %

c) %

2) For each bar model, find the fraction and percentage that is shaded.

a) %

b) %

c) %

3) Complete the number statements.

a) $\frac{2}{5}$ = 20% or $\frac{2}{10}$ = ____ %

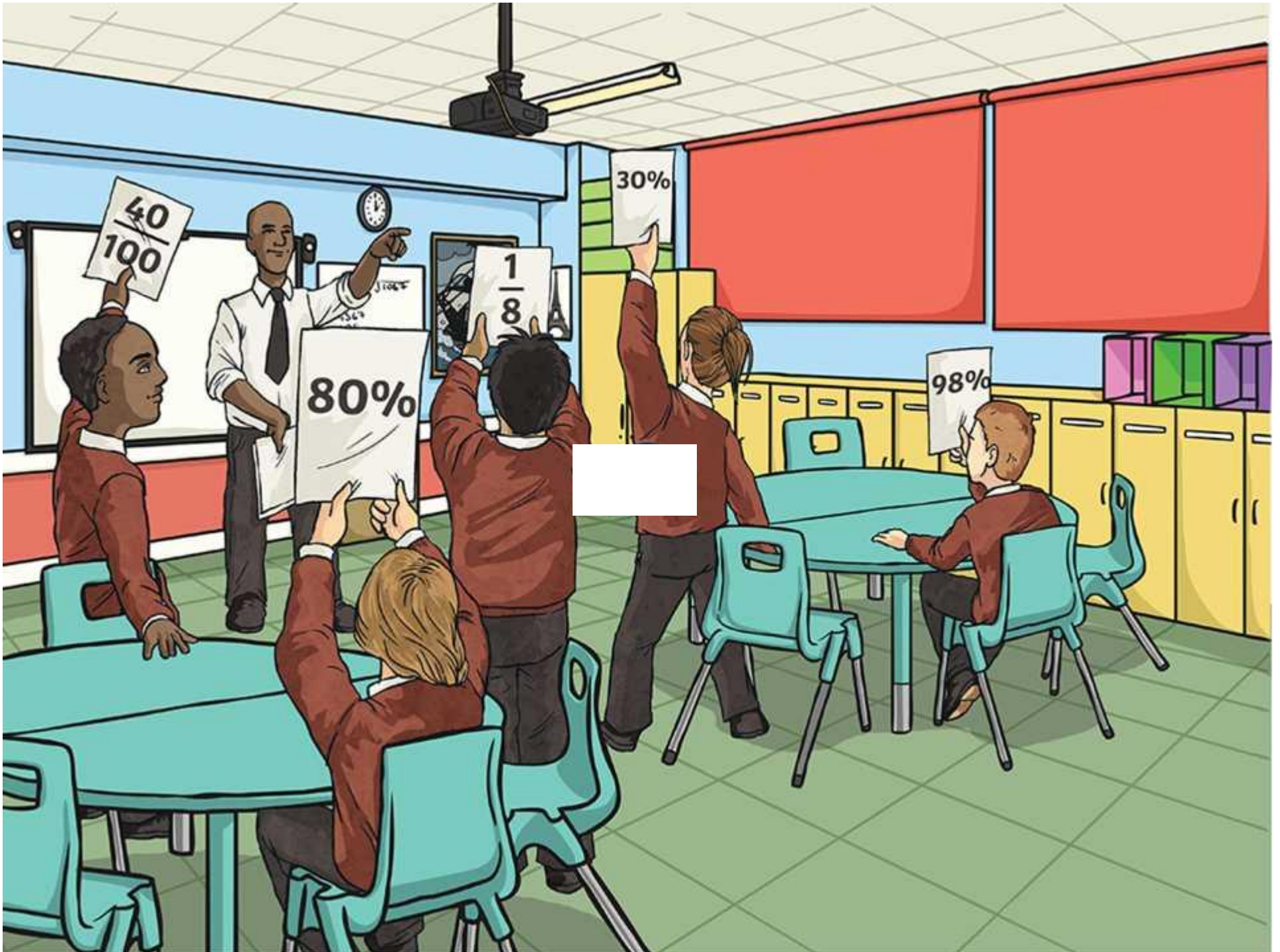
b) $\frac{1}{10}$ = ____ %

c) $\frac{1}{2}$ = ____ %

a) $\frac{3}{10}$ = 20% or $\frac{3}{15}$ = ____ %

b) $\frac{1}{20}$ = ____ %

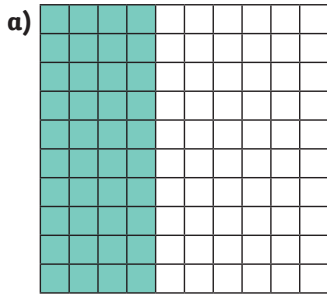
c) $\frac{1}{10}$ = ____ %



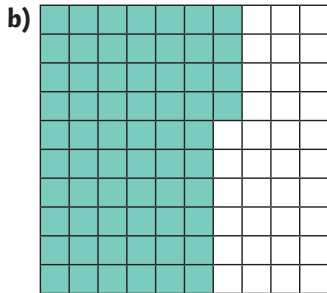
Percentages as Fractions



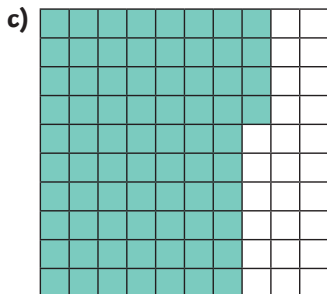
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$$\frac{\square}{100} = \underline{\hspace{2cm}}\%$$

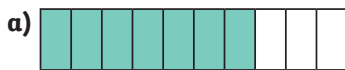


$$\frac{\square}{100} = \underline{\hspace{2cm}}\%$$



$$\frac{\square}{100} = \underline{\hspace{2cm}}\%$$

2) For each bar model, find the fraction and percentage that is shaded.



$$\frac{\square}{10} = \underline{\hspace{2cm}}\%$$



$$\frac{\square}{10} = \underline{\hspace{2cm}}\%$$



$$\frac{\square}{10} = \underline{\hspace{2cm}}\%$$

3) Complete the number statements.

a) $\frac{1}{5} = 20\%$ so $\frac{3}{5} = \underline{\hspace{2cm}}\%$

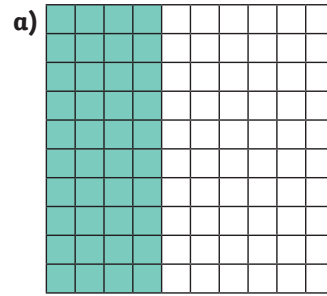
b) $\frac{4}{10} = \underline{\hspace{2cm}}\%$

c) $\frac{\square}{\square} = 25\%$

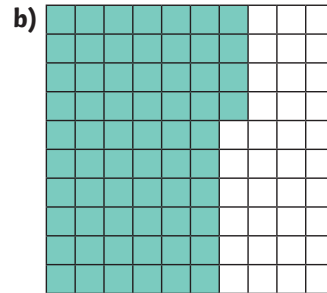
Percentages as Fractions



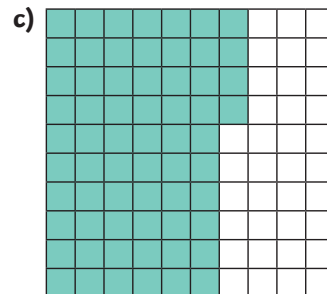
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3) Complete the number statements.

a) $\frac{1}{5} = 20\%$ so $\frac{3}{5} = \underline{\hspace{2cm}}\%$

b) $\frac{4}{10} = \underline{\hspace{2cm}}\%$

c) $\frac{\square}{\square} = 25\%$

Percentages as Fractions



1) Explain what mistake Felix has made.



Felix

$\frac{4}{10}$ as a percentage is 4%.

2) Which is the odd one out? Explain your reasoning.

$\frac{6}{8}$ 75% $\frac{3}{4}$

$\frac{9}{12}$ 65%

3) Do you agree with Drew? Explain why.



Drew

I cannot write $\frac{3}{15}$ as a percentage because 15 is not a factor of 100.

4) Joseph and Jia are converting the same fraction to a percentage. Who is correct? Explain how you know.



Joseph

$\frac{6}{8}$ as a percentage is 60%.



Jia

$\frac{6}{8}$ as a percentage is 75%.

Percentages as Fractions



1) Explain what mistake Felix has made.



Felix

$\frac{4}{10}$ as a percentage is 4%.

2) Which is the odd one out? Explain your reasoning.

$\frac{6}{8}$ 75% $\frac{3}{4}$

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$\frac{6}{8}$ as a percentage is 75%.

Percentages as Fractions



1) There are 200 marbles in a jar.



Bartek

I have taken $\frac{6}{10}$.

I have taken 25%.



Hari

How many marbles are left in the jar?

2) Bartek and Jia have 100 sweets to put into party bags. Use the clues to work out what percentage of the sweets are green and blue.



Bartek

$\frac{1}{4}$ of the sweets are red.

There are twice as many green sweets as blue sweets.



Jia

3) Write the fractions and percentages in descending order.

$\frac{1}{4}$

$\frac{3}{5}$

53%

$\frac{12}{16}$

66%

Percentages as Fractions



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Bartek

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