Fractions to Percentages

Notes and Guidance

It is important that children understand that 'percent' means 'out of 100'.
Children will be familiar with converting some common fractions from their work in Year 5
They learn to convert fractions to equivalent fractions where the denominator is 100 in order to find the percentage equivalent.

Mathematical Talk

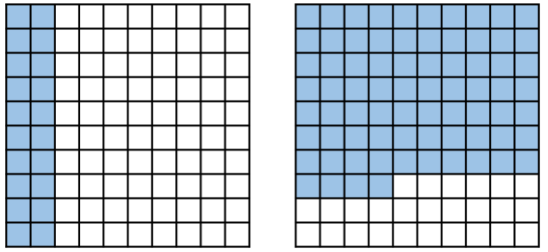
What does the word 'percent' mean?

How can you convert tenths to hundredths?

Why is it easy to convert fiftieths to hundredths?
What other fractions are easy to convert to percentages?

Varied Fluency

- What fraction of each hundred square is shaded? Write the fractions as percentages.



- Complete the table.

Fraction	Percentage
$\frac{1}{2}$	
$\frac{1}{4}$	
$\frac{1}{10}$	
$\frac{1}{5}$	

- Fill in the missing numbers.

$\frac{12}{100} = \square\ \%$ $\qquad$ $\frac{\square}{100} = 35\%$

$\frac{12}{50} = \frac{\square}{100} = \square\ \%$ $\qquad$ $\frac{44}{\square} = \frac{22}{100} = 22\%$

Fractions to Percentages

Reasoning and Problem Solving

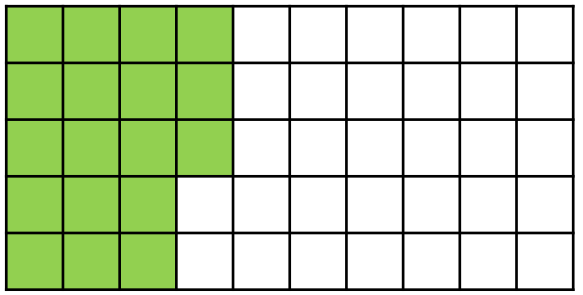
In a Maths test, Tommy answered 62% of the questions correctly.

Rosie answered $\frac{3}{5}$ of the questions correctly.

Who answered more questions correctly?

Explain your answer.

Tommy answered more questions correctly because $\frac{3}{5}$ as a percentage is 60% and this is less than 62%



Amir thinks that 18% of the grid has been shaded.

Dora thinks that 36% of the grid has been shaded.

Who do you agree with?

Explain your reasoning.

Dora is correct because $\frac{18}{50} = \frac{36}{100}$

Equivalent FDP

Notes and Guidance

Children use their knowledge of common equivalent fractions and decimals to find the equivalent percentage.

A common misconception is that 0.1 is equivalent to 1%. Diagrams may be useful to support understanding the difference between tenths and hundredths and their equivalent percentages.

Mathematical Talk

How does converting a decimal to a fraction help us to convert it to a percentage?

How do you convert a percentage to a decimal?

Can you use a hundred square to represent your conversions?

Varied Fluency

Complete the table.

Decimal	Fraction	Percentage
0.35	$\frac{35}{100}$	35%
0.27		
0.6		
0.06		

Use <, > or = to complete the statements.

0.36 ◯ 40%

$\frac{7}{10}$ ◯ 0.07

0.4 ◯ 25%

0.4 ◯ $\frac{1}{4}$

Which of these are equivalent to 60%?

$\frac{60}{100}$ | $\frac{6}{100}$ | 0.06 | $\frac{3}{5}$ | $\frac{3}{50}$ | 0.6

Equivalent FDP

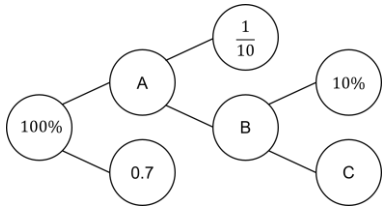
Reasoning and Problem Solving

Amir says 0.3 is less than 12% because 3 is less than 12

Explain why Amir is wrong.

Amir is wrong because 0.3 is equivalent to 30%

Complete the part-whole model.
How many different ways can you complete it?



Can you create your own version with different values?

A = 0.3, 30% or $\frac{3}{10}$

B = 0.2, 20%, $\frac{2}{10}$ or $\frac{1}{5}$

C = 0.1, 10% or $\frac{1}{10}$

How many different fractions can you make using the digit cards?

1	2	3	4	5	6

How many of the fractions can you convert into decimals and percentages?

Possible answers:

Children make a range of fractions.

They should be able to convert

$\frac{1}{2}, \frac{1}{4}, \frac{2}{4}, \frac{3}{4}, \frac{1}{5}, \frac{2}{5}, \frac{3}{5}$

and $\frac{4}{5}$ into decimals and percentages.