

Year 6 Block 9 Unit: Fractions, decimals and percentages

Key Vocabulary:

decimal	fraction	equivalent	division	percentages	tenths
hundreds	Decimal point	order	compare	amount	

What will I know by the end of this unit?

Decimals and fraction equivalents:

$$\frac{17}{20} = \frac{85}{100} = 0.85$$

Fractions as division:

Ron is using place value counters to convert $\frac{1}{2}$ to a decimal by dividing.

$$\frac{1}{2} = 1 \div 2$$

$$\frac{1}{2} = 0.5$$

Understand percentages:

$$\frac{6}{10} = \frac{60}{100} = 60 \text{ out of } 100 = 60\%$$

Fractions to percentages:

Huan thinks that 18% of the grid has been shaded.
Dora thinks that 36% of the grid has been shaded. ✓

Who do you agree with?

$$\frac{18}{50} = \frac{36}{100} = 36\%$$

Equivalent fractions, decimals and percentages:

Four children were completing some maths work. Put the children in order of who got the most correct.

	F	D	P
$\frac{17}{20}$ correct 2 nd	$\frac{85}{100}$	0.85	85%
84% correct 3 rd	$\frac{84}{100}$	0.84	84%
0.8 correct 4 th	$\frac{80}{100}$	0.80	80%
12% incorrect 1 st 88% correct	$\frac{88}{100}$	0.88	88%

Order fractions, decimals and percentages:

$$0.6 = \frac{6}{10} = \frac{60}{100} \quad \frac{2}{5} = \frac{4}{10} = \frac{40}{100} \quad 11\% = \frac{11}{100}$$

$$11\% < \frac{2}{5} < 0.6$$

Percentage of an amount:

How could we calculate 15% of 80?

15% of 80 = 8 + 4
15% of 80 = 12

10% 5%

Percentages - missing values:

75% of Year 6 are boys.
There are 36 boys.
How many children are there in Year 6 altogether?

$$75\% = \frac{75}{100} \quad \frac{75}{100} = \frac{3}{4}$$

$$36 \div 3 = 12 \quad ? \quad 12 \times 4$$

48 children in Year 6