

MATHS · Y4–Y6

Percentages

Knowledge Organiser — Y4–Y6

Key vocabulary

1

Percentage

A fraction with denominator 100. 'Per cent' means 'out of 100'. Symbol: %

Example: 47% means 47 out of every 100

2

Fraction ↔ Decimal ↔ Percentage

These are three ways to express the same value.

Example: $\frac{1}{2} = 0.5 = 50%$ $\frac{1}{4} = 0.25 = 25%$ $\frac{3}{4} = 0.75 = 75%$ $\frac{1}{10} = 0.1 = 10%$

3

Finding a percentage of an amount

Divide by 100 to find 1%, then multiply.

Example: 30% of 80: $80 \div 100 = 0.8$ (1%), then $0.8 \times 30 = 24$

4

Percentage increase

Original amount \times (1 + percentage as decimal)

Example: 20% increase on £50: $50 \times 1.2 = £60$

5

Percentage decrease

Original amount \times (1 – percentage as decimal)

Example: 15% decrease on £80: $80 \times 0.85 = £68$

Conversions to know

Memorise these — they save



- $10\% = 0.1 = 1/10$ (divide by 10)
- $25\% = 0.25 = 1/4$ (divide by 4)
- $50\% = 0.5 = 1/2$ (divide by 2)
- $75\% = 0.75 = 3/4$ ($\times 50\% + \times 25\%$)
- $100\% = 1 =$ the whole
- $1\% = 0.01 = 1/100$ (divide by 100)
- $5\% =$ half of 10%
- STRATEGY: find 10% first, then adjust
- e.g. $30\% = 3 \times 10\%$; $15\% = 10\% + 5\%$; $40\% = 4 \times 10\%$

