

Percentages

Knowledge Organiser

Key Vocabulary

per cent (%) =
'out of 100'

percentage

discount

equivalent fraction

equivalent decimal

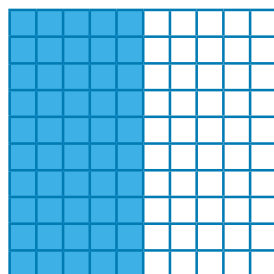
convert

compare

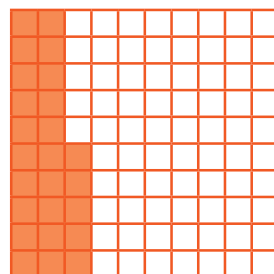
order

the whole

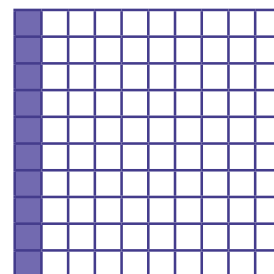
Equivalent Fractions, Decimals and Percentages



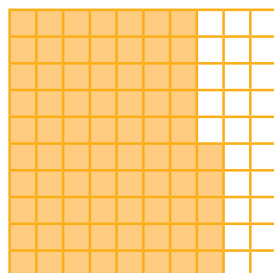
$$\frac{50}{100} = \frac{1}{2} = 0.5 = 50\%$$



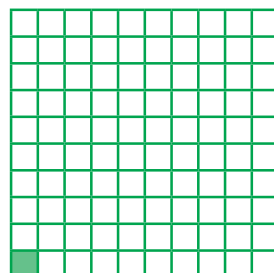
$$\frac{25}{100} = \frac{1}{4} = 0.25 = 25\%$$



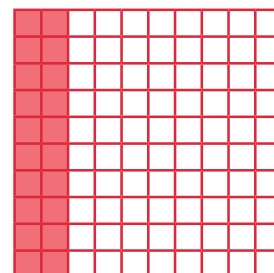
$$\frac{10}{100} = \frac{1}{10} = 0.1 = 10\%$$



$$\frac{75}{100} = \frac{3}{4} = 0.75 = 75\%$$



$$\frac{1}{100} = 0.01 = 1\%$$



$$\frac{20}{100} = \frac{2}{10} = 0.2 = 20\%$$

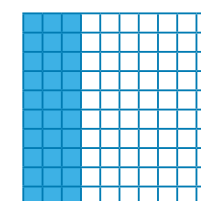
Fractions to Percentages

$$\begin{array}{c} \times 2 \\ \swarrow \quad \searrow \\ \frac{15}{50} = \frac{30}{100} = 0.3 = 30\% \\ \nwarrow \quad \nearrow \\ \times 2 \end{array}$$

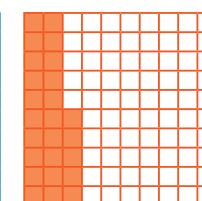
$$\begin{array}{c} \div 2 \\ \swarrow \quad \searrow \\ \frac{60}{200} = \frac{30}{100} = 0.3 = 30\% \\ \nwarrow \quad \nearrow \\ \div 2 \end{array}$$

Order Fractions, Decimals and Percentages

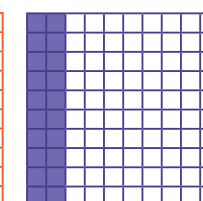
$$\frac{3}{10} > 25\% > 0.2$$



$$\frac{30}{100} = 30\%$$

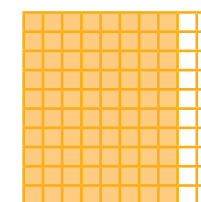


$$\frac{25}{100} = 25\%$$

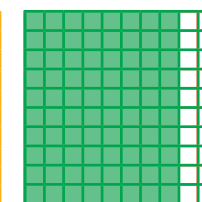


$$\frac{20}{100} = 20\%$$

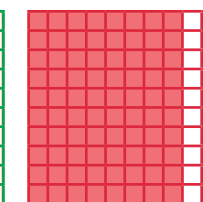
$$80\% = 0.8 = \frac{4}{5}$$



$$\frac{80}{100} = 80\%$$



$$\frac{80}{100} = 80\%$$



$$\frac{80}{100} = 80\%$$

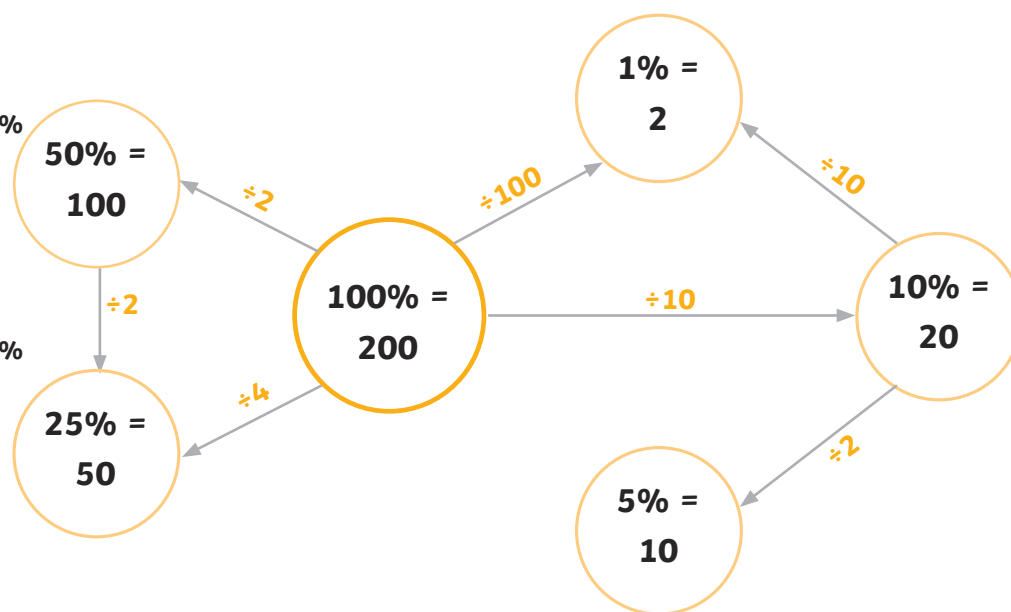
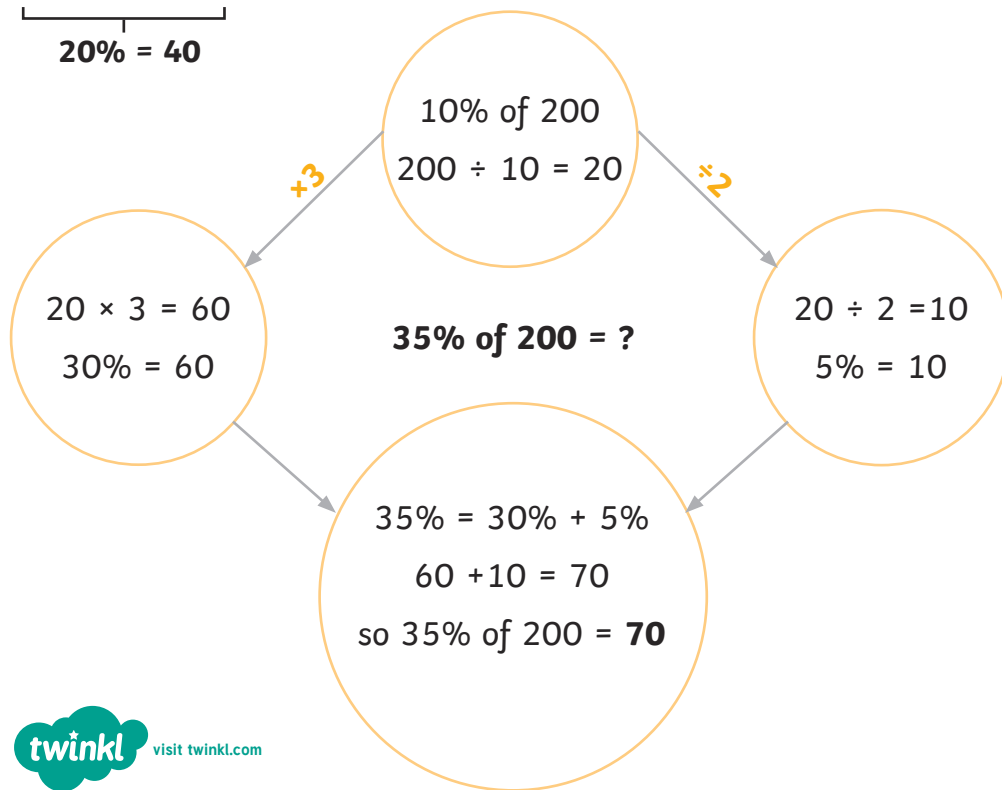
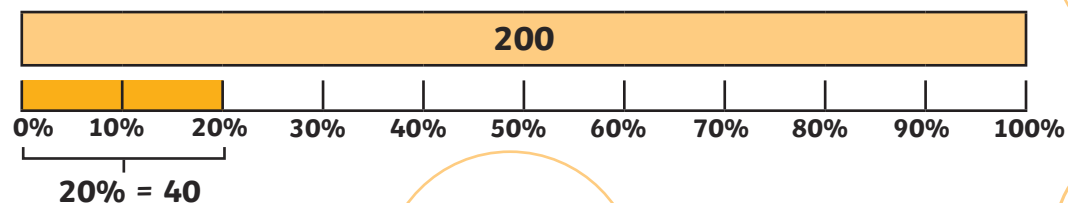
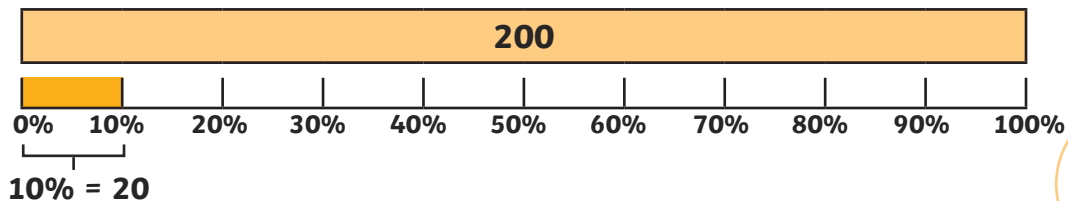
Finding a Percentage of an Amount

$$50\% = \frac{1}{2} \text{ so we can divide by 2}$$

$$10\% = \frac{1}{10} \text{ so we can divide by 10}$$

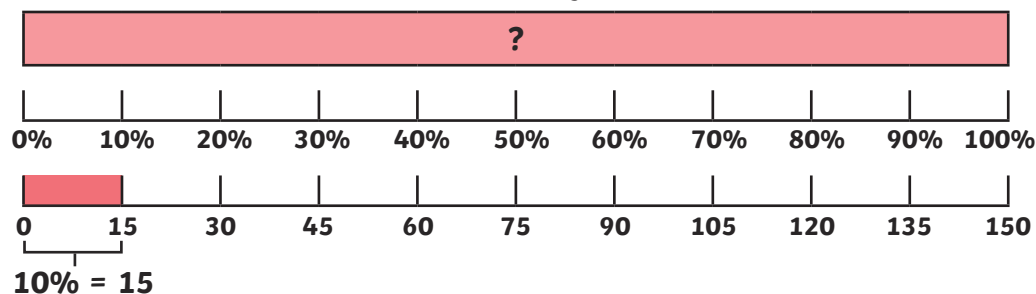
$$25\% = \frac{1}{4} \text{ so we can divide by 4}$$

$$1\% = \frac{1}{100} \text{ so we can divide by 100}$$



Percentages – Missing Values

Whole value (100%) of bar model = ?



We know 10% = 15 $10\% \times 10 = 100\%$ (the whole) so $15 \times 10 = 150$