

Percentages

Knowledge Organiser

Key Vocabulary

per cent (%) =
'out of 100'

percentage

discount

equivalent fraction

equivalent decimal

convert

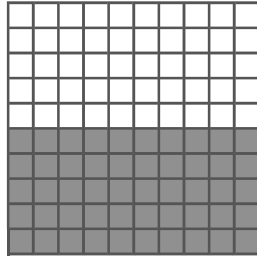
compare

order

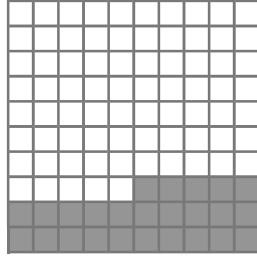
the whole



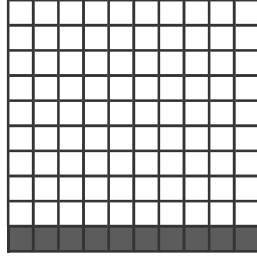
Equivalent Fractions, Decimals and Percentages



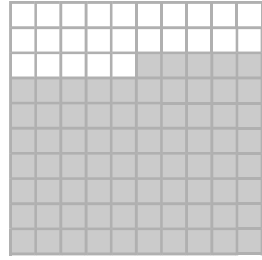
$$\frac{50}{100} = \frac{1}{2} = 0.5 = 50\%$$



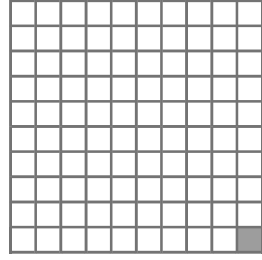
$$\frac{25}{100} = \frac{1}{4} = 0.25 = 25\%$$



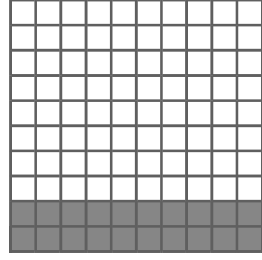
$$\frac{10}{100} = \frac{1}{10} = 0.1 = 10\%$$



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

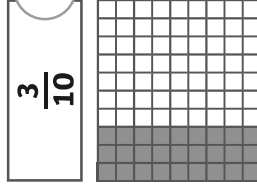


$$\frac{1}{100} = 0.01 = 1\%$$

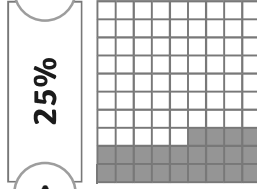


$$\frac{20}{100} = \frac{2}{10} = 0.2 = 20\%$$

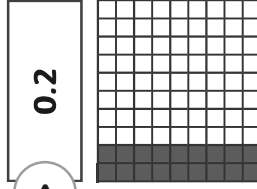
Order Fractions, Decimals and Percentages



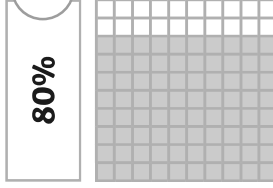
$$\frac{30}{100} = 30\%$$



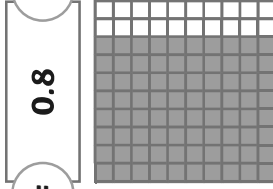
$$\frac{25}{100} = 25\%$$



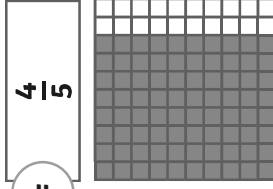
$$\frac{20}{100} = 20\%$$



$$80\%$$



$$= 0.8$$



$$= \frac{4}{5}$$

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

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

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

Fractions to Percentages

$$\frac{15}{50} = \frac{30}{100} = 0.3 = 30\%$$

(Note: $\frac{15}{50} \times 2 = \frac{30}{100}$ and $\frac{30}{100} \times 2 = \frac{60}{200}$)

$$\frac{60}{200} = \frac{30}{100} = 0.3 = 30\%$$

(Note: $\frac{60}{200} \div 2 = \frac{30}{100}$ and $\frac{30}{100} \div 2 = \frac{15}{50}$)

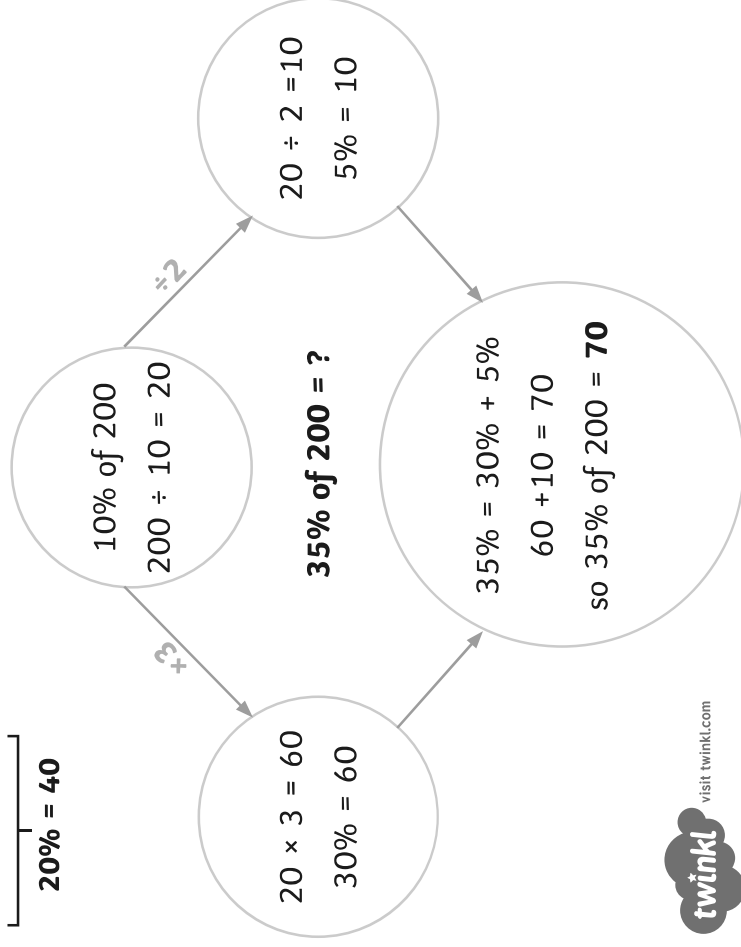
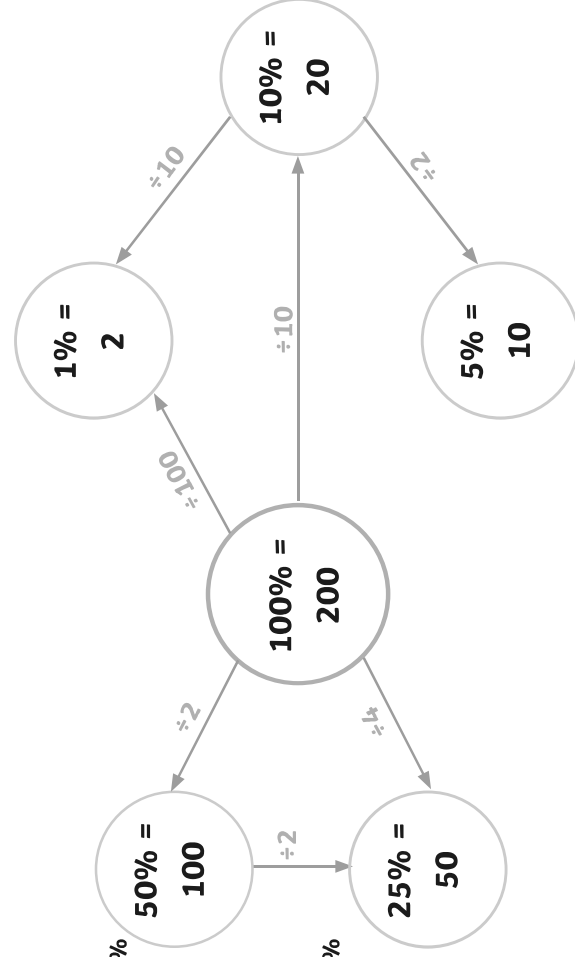
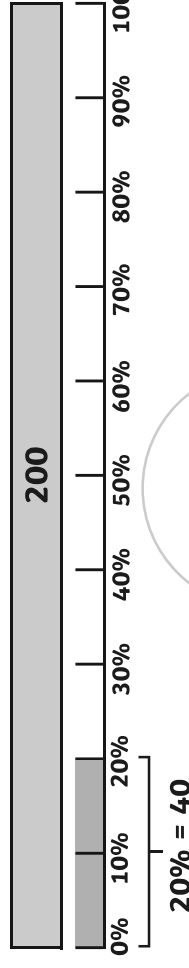
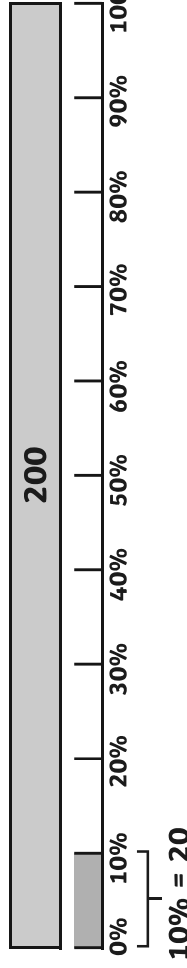
Finding a Percentage of an Amount

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

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

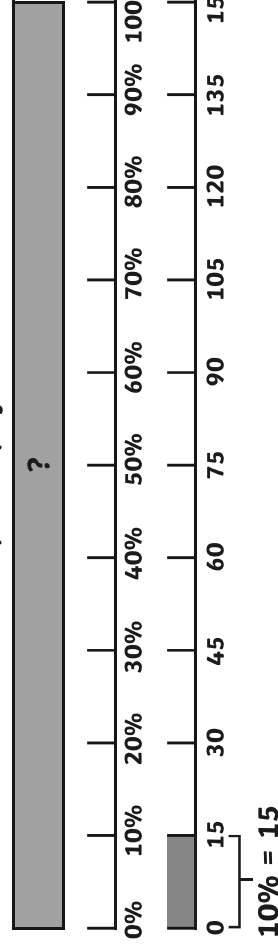
$25\% = \frac{1}{4}$ so we can divide by 4

$1\% = \frac{1}{100}$ 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 $15 \times 10 = 150$