

1 Write in order of size, smallest first,

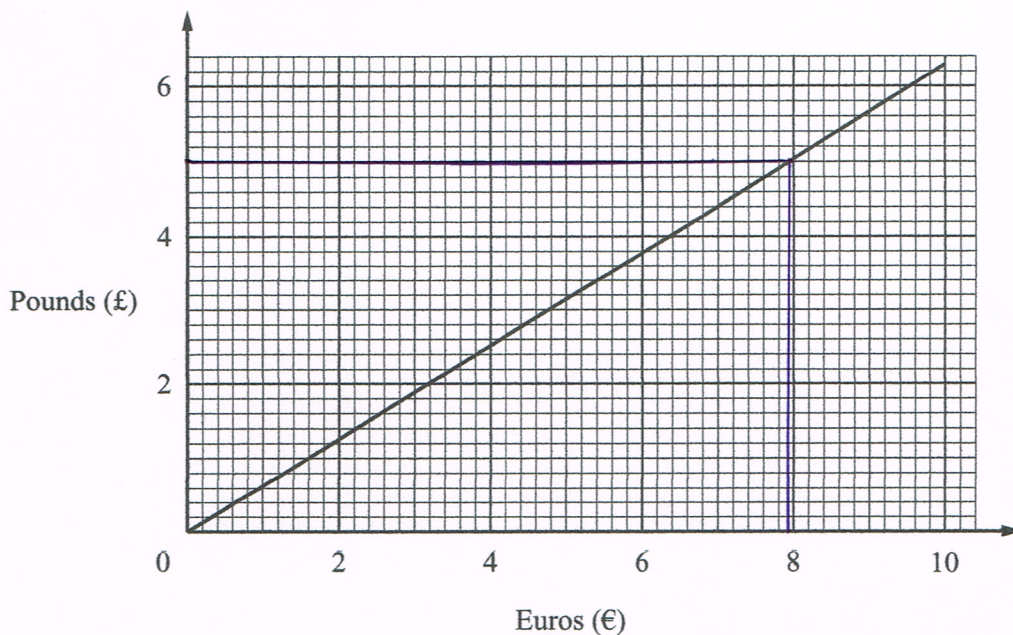
$\frac{5}{98}$, 0.049, 5%.

$\frac{5}{98} = 0.051$

5% = 0.05

Answer $0.049 < 5\% < \frac{5}{98}$ [2]

2 The graph below can be used to convert between euros (€) and pounds (£).



(a) Change £5 into euros.

Answer (a) € 7.85 [1]

(b) Change €90 into pounds.

€10 = £6.3

€90 = £6.3 × 9
= £56.7

Answer (b) £ 56.7 [1]

3 The top speed of a car is 54 metres per second.

Change this speed into kilometres per hour.

$54 \text{ m/s} = 54 \times 3600 \text{ m/h} = 194400 \text{ m/h}$

$= 194.4 \text{ km/h}$ Answer 194.4 km/h [2]

4 $\mathbf{a} = \begin{pmatrix} 2 \\ -3 \end{pmatrix}$ and $\mathbf{b} = \begin{pmatrix} 5 \\ -1 \end{pmatrix}$. Find $3\mathbf{a} - 2\mathbf{b}$.

$3\begin{pmatrix} 2 \\ -3 \end{pmatrix} - 2\begin{pmatrix} 5 \\ -1 \end{pmatrix} = \begin{pmatrix} 6 \\ -9 \end{pmatrix} - \begin{pmatrix} 10 \\ -2 \end{pmatrix}$

$= \begin{pmatrix} 6-10 \\ -9-(-2) \end{pmatrix} = \begin{pmatrix} -4 \\ -7 \end{pmatrix}$

Answer $\begin{pmatrix} -4 \\ -7 \end{pmatrix}$ [2]