

1. Write 6730000 in Standard Form

$$\underline{6.73 \times 10^6}$$

2. Expand $3x(5-x)$
 $\underline{15x - 3x^2}$

3. Work out 431×21

$$\begin{array}{r} 431 \times 20 = 8620 \\ 431 \times 1 = 431 \\ \hline \text{Total} = \underline{9051} \end{array}$$

4. Round 47080 to 2 significant figures

$$\begin{array}{r} 47080 \\ \underline{47000} \\ \text{2.s.f.} \end{array}$$

5. What is the gradient of the line

$$2y = 6x + 4$$

$$\frac{2y}{2} = \frac{6x+4}{2} \quad y = 3x + 2$$

The gradient of the line is 3

6. Round 3.573m to the nearest cm

Convert to cm ($\times 100$)

$$3.573 \times 100 = 357.3\text{cm}$$

To the nearest cm it is 357cm

7. Sales rise from £340 to £425 per week. Calculate the percentage increase.

$$\text{Difference} \rightarrow 425 - 340 = 85$$

$$\frac{85}{340} = \frac{1}{4} \quad \text{convert } \frac{1}{4} \text{ into a percentage}$$

$$\frac{1}{4} = \underline{25\%}$$

8. If 8 pens cost £2.40, how much would 3 pens cost?

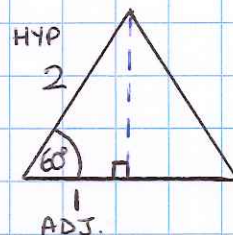
$$\begin{array}{r} 8 \text{ pens} = \text{£}2.40 \\ \div 8 \quad \left. \begin{array}{l} \phantom{8 \text{ pens}} \\ \phantom{8 \text{ pens}} \end{array} \right\} \div 8 \\ 1 \text{ pen} = 30\text{p} \\ \times 3 \quad \left. \begin{array}{l} \phantom{1 \text{ pen}} \\ \phantom{1 \text{ pen}} \end{array} \right\} \times 3 \\ \underline{3 \text{ pens} = 90\text{p.}} \end{array}$$

9. Solve $3x - 1 = 2x + 3$

$$\begin{array}{r} -2x \quad -2x \\ 3x - 1 = 2x + 3 \\ - 1 = + 3 \\ + 1 = + 1 \end{array}$$

$$\underline{x = 4}$$

10. State the exact value of $\cos 60^\circ$



$$\cos 60^\circ = \frac{\text{Adj}}{\text{Hyp}}$$

$$\cos 60^\circ = \frac{1}{2} \text{ exact value.}$$