

Revision Homework 1

Q1 $D = \pi \times 1.2 \times 10^7$
 $\Rightarrow \underline{\underline{37699111.84 \text{ km}}}$
 distance

$$S = \frac{D}{T}$$

$$= \frac{37699111.84}{2112}$$

$$= \underline{\underline{17849.96 \text{ km/h.}}}$$

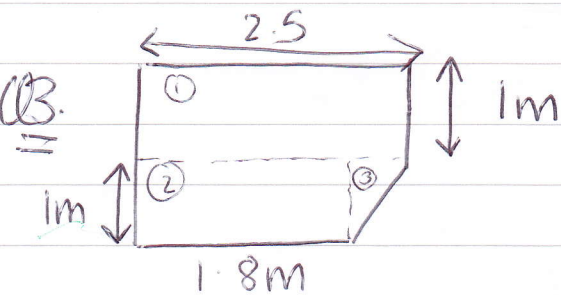
Q2: $(2y-3)^2$
 $\Rightarrow (2y-3)(2y-3)$
 $\Rightarrow 4y^2 - 6y - 6y + 9$
 $\Rightarrow 4y^2 - \underline{\underline{12y}} + 9$

(b) $2x^2 + 7x - 4$

$$\frac{2x^2}{2x \times x} \quad \frac{4}{4 \times 1}$$

$\Rightarrow \underline{\underline{(2x-1)(x+4)}}$

$$\begin{array}{r} \underline{+} \quad \underline{-} \\ (2x-1) - x \\ (x+4) + 8x \\ \hline + 7x \end{array}$$



A of ① = $l \times b$
 $= 2.5 \times 1$
 $= \underline{\underline{2.5 \text{ m}^2}}$

A of ③
 $= \frac{1}{2}(b \times h)$
 $= \frac{1}{2}(0.7 \times 1)$
 $= \underline{\underline{0.35}}$

A of ② = $l \times b$
 $= 1.8 \times 1$
 $= \underline{\underline{1.8 \text{ m}^2}}$

$$\begin{array}{r} b^* = 2.5 \\ - 1.8 \\ \hline 0.7 \end{array}$$

(a) A of cross section $\Rightarrow A_{\text{①}} + A_{\text{②}} + A_{\text{③}}$
 $= 2.5 + 1.8 + 0.3$
 $= 4.3 + 0.35$
 $= \underline{\underline{4.65 \text{ m}^2}}$

$$\begin{aligned} \text{b)} \quad V &= A \times h \\ &= 4.6 \times 2 \\ &= \underline{\underline{9.2 \text{m}^3}} \end{aligned}$$

$$\begin{aligned} \text{Q4} \quad 4T + 6C &= 108 \text{ (1)} \quad \times 2 \\ 8T + 3C &= 108 \text{ (2)} \end{aligned}$$

$$8T + 12C = 216 \text{ (3)}$$

$$\underline{8T + 3C = 108 \text{ (2)}}$$

$$9C = 108$$

$$\underline{\underline{C = 12}}$$

$$\text{(3)} - \text{(2)}$$

$$\checkmark 8t - 8t = 0$$

$$8t + 8t$$

Sub $c = 12$ into (1)

$$4 \times T + 6 \times 12 = 108$$

$$4T + 72 = 108$$

$$4T = 36$$

$$\underline{\underline{T = 9}}$$

$$\text{tea} = \text{£}9$$

$$\text{coffee} = \text{£}12.$$