

General Paper 1 2004 Exam Solutions

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Graduate Bsc (Hons) MathsSci (Open) GIMA

1a. Given $14.93 - 3.7 + 2.15$

$$\begin{array}{r} 14.93 \\ - 3.70 \\ \hline 11.23 \end{array}$$

$$\begin{array}{r} 11.23 \\ + 2.15 \\ \hline 13.38 \end{array}$$

b. Given 42.8×7

$$\begin{array}{r} 42.8 \\ \times 7 \\ \hline 299.6 \end{array}$$

c. $1710 \div 3000$

Step 1 : Divide by 1000 1.710

Step 2 : Divide by 3

$$\begin{array}{r} 0.570 \\ 3 \overline{) 1.710} \end{array}$$

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- d. Given 90% of 92 litres

$$\frac{9}{10} \times 180$$

Step 1: divide $180 \div 10 = 18$

Step 2: $18 \times 9 = \text{£}162$

- 2 $\frac{3}{7}$ as decimal to two decimal places is:

$$3 \overline{) 7.1000} = 2.33 \text{ (2 d.p.)}$$

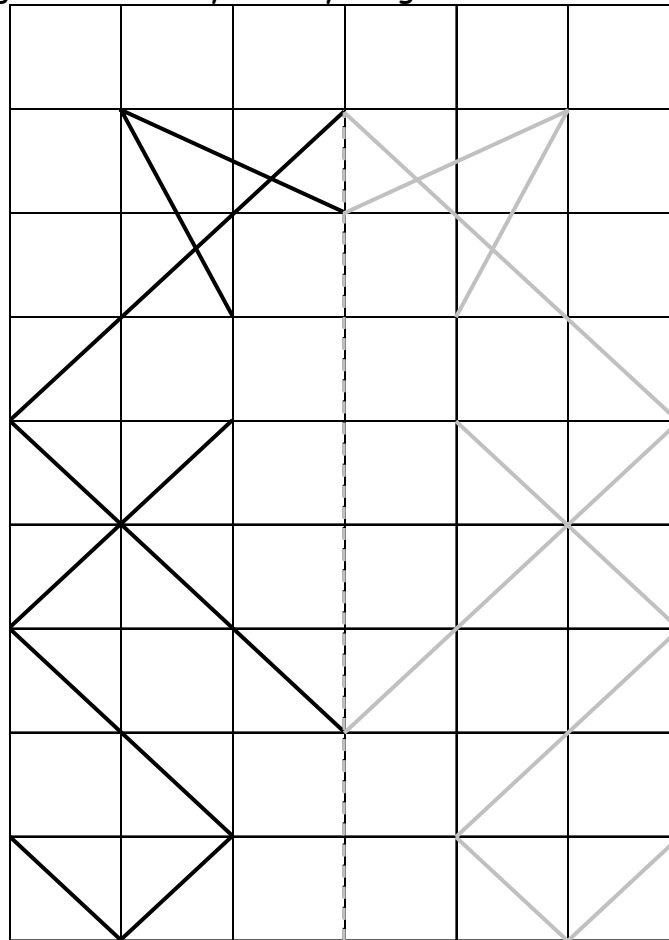
4. Given that ocean is $1.813 \times 10^8 \text{ km}^2$. In full this number is:

$$181300000 \text{ km}^2$$

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3. Completing the axis of symmetry we get:



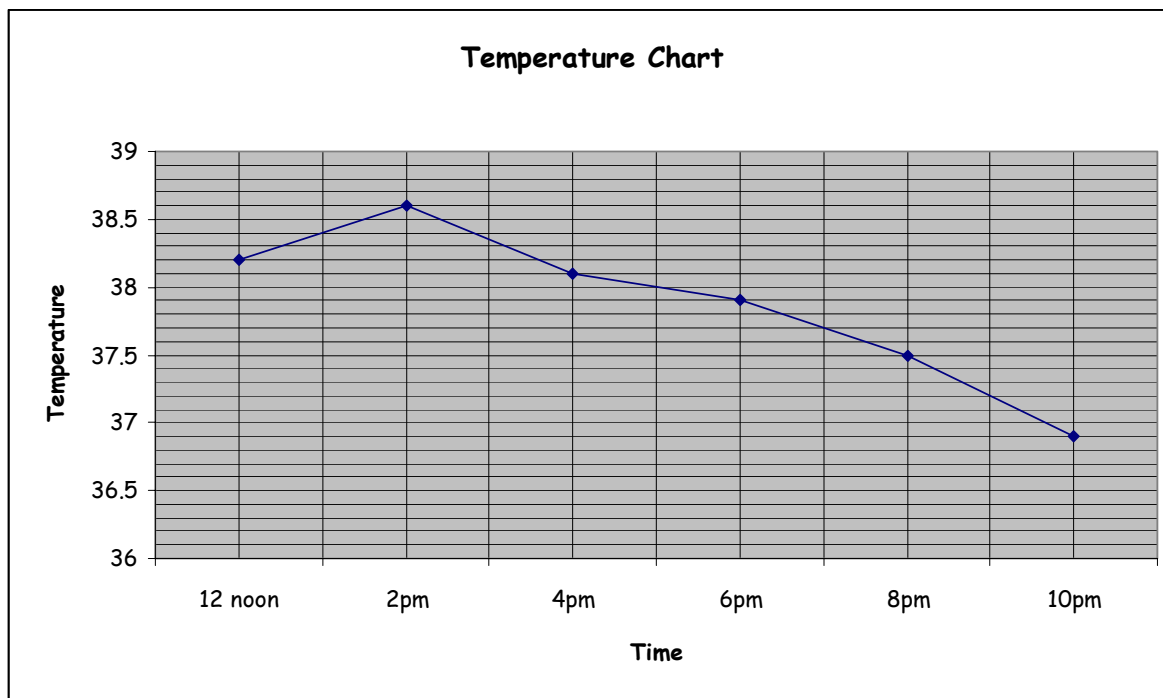
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5. Given the patient temperature table we can draw a line graph below:

Time	12 noon	2pm	4pm	6pm	8pm	10pm
Temperature °C	38.2	38.6	38.1	37.9	37.5	36.9



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- 6a. Given a garage sold 12 red cars, 9 silver cars, 15 black cars.

Probability of picking a silver car as a fraction in its simplest form is:

$$P(\text{silver}) = \frac{\text{number of silver}}{\text{total number of colours}} = \frac{9}{36} = \frac{1}{4}$$

7. Given the diagram:

Kite is made up of 4 right angle triangles.
It has a vertical line of symmetry.

$$\text{Angle DGF} = \text{Angle DGE} + \text{Angle FGE}$$

$$\text{Angle DGE} = 180^\circ - 90^\circ - 69^\circ = 21^\circ$$

$$\text{Angle FGE} = 180^\circ - 90^\circ - 33^\circ = 57^\circ$$

Hence

$$\text{Angle DGF} = 21^\circ + 57^\circ = 78^\circ$$

