

ANSWERS

Trial Trail Revision #2

IGCSE Mathematics
Trial Trail Revision Papers

Answer 1

$$\begin{aligned} \text{(i)} \quad \text{Area } \Delta &= \frac{1}{2} \times \text{base} \times \text{height} \\ &= \frac{1}{2} \times 24 \times 7 \\ &= 84 \text{ cm}^2 \end{aligned}$$

[2 marks]

$$\text{(ii)} \quad h = \sqrt{24^2 + 7^2} = 25 \text{ cm}$$

[2 marks]

(iii) The perimeter is 56 cm

[1 mark]

Answer 2

$$\text{(i)} \quad x^2 - 9x + 14 \qquad \text{(ii)} \quad 4x^2 + 23x + 15$$

[2, 2 marks]

Answer 3

$$\text{(i)} \quad x = 108 - 60 = 48^\circ \qquad \text{(ii)} \quad y = \frac{180 - 48}{2} = 66^\circ$$

[2, 2 marks]

Answer 4

Method 1

$$5(x - 4) = 35$$

$$x - 4 = 7$$

$$x = 11$$

Method 2

$$5(x - 4) = 35$$

$$5x - 20 = 35$$

$$5x = 55$$

$$x = 11$$

[2 marks]

Answer 5

$$\text{(i)} \quad 1 \qquad \text{(ii)} \quad 3 \qquad \text{(iii)} \quad 4$$

[1, 1, 2 marks]

Answer 6

(i) 2 hours 45 minutes

[2 marks]

$$\begin{aligned}
 \text{(ii) } \quad \text{average speed} &= \frac{\text{Total Distance}}{\text{Total Time}} \\
 &= \frac{260}{2.75} \\
 &= 94.5 \text{ km/h}
 \end{aligned}$$

[3 marks]

Answer 7

(i) Use the Theorem of Pythagoras of $\triangle BCD$

$$BD = \sqrt{13^2 - 12^2} = 5 \text{ m}$$

[3 marks]

$$\begin{aligned}
 \text{(ii) } \quad \text{Total Area} &= \text{Area } \triangle ABE + \text{Area } \triangle BCD \\
 &= \frac{1}{2} \times 16 \times 7 + \frac{1}{2} \times 12 \times 5 \\
 &= 56 + 30 \\
 &= 86 \text{ m}^2
 \end{aligned}$$

[3 marks]

Answer 8

$$\begin{aligned}
 \text{mean} &= \frac{(1 \times 4) + (2 \times 9) + (3 \times 8) + (4 \times 0) + (5 \times 4)}{25} \\
 &= \frac{4 + 18 + 24 + 0 + 20}{25} = \frac{66}{25} = 2.64 \text{ children/family}
 \end{aligned}$$

[4 marks]

Answer 9

$$\begin{aligned}
 13 &\leq 3x + 7 \leq 22 \\
 6 &\leq 3x \leq 15 \\
 2 &\leq x \leq 5 \\
 \text{So } x &\in \{ 2, 3, 4, 5 \}
 \end{aligned}$$

[3 marks]

Answer 10

$$x = -9$$

[3 marks]

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