

ANSWERS

Trial Trail Revision #3

IGCSE Mathematics
Trial Trail Revision Papers

Answer 1

$$\begin{aligned}161x &= 3059 \\x &= \frac{3059}{161} \\&= 19 \text{ litres}\end{aligned}$$

[2 marks]

Answer 2

$$V_{CUBOID} = length \times breadth \times height$$

$$45 = 3 \times 6 \times h$$

$$\begin{aligned}h &= \frac{45}{3 \times 6} \\&= 2.5 \text{ cm}\end{aligned}$$

$$V_{CUBE} = x \times x \times x$$

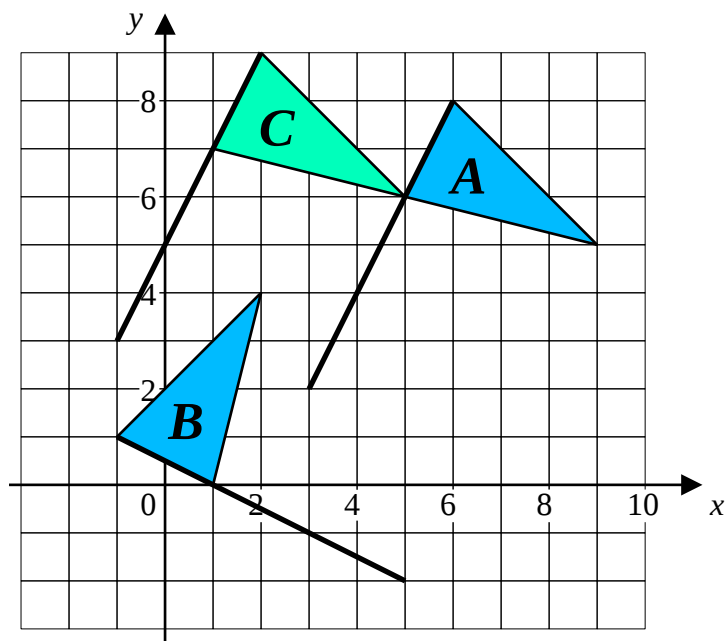
$$= 2.5 \times 2.5 \times 2.5 \text{ as } x = h$$

$$= 15.6 \text{ cm}^3$$

[4 marks]

Answer 3

(i)



[2 marks]

(ii) Rotation, 90° , about (6, 1)

[3 marks]

Answer 4

$$5x + 6y = 9 \Rightarrow 5x + 6y = 9$$

$$2x + 3y = 3 \Rightarrow 4x + 6y = 6 \quad \text{SUBTRACT}$$

$$x = 3 \Leftrightarrow y = -1$$

[4 marks]

Answer 5

(i) $6x^2 + 7x - 5$

(ii) $16x^2 + 24x + 9$

[3, 3 marks]

Answer 6

Put the data in order : 12 28 30 37 43

The median is 30

[2 marks]

Answer 7

5

[1 mark]

Answer 8

(i) $f(7) = 3 \times 7 + 4 = 25$

(ii) $g(g(11)) = g(19) = 35$

(iii) $fg(4) = f(5) = 19$

[1, 2, 3 marks]

Answer 9

STRATEGY : Get angle ACB first using reciprocal sine rule

$$\frac{\sin C}{c} = \frac{\sin B}{b}$$

$$\sin C = \frac{7 \times \sin 75}{11} = 0.615 \Leftrightarrow C = 37.9^\circ \text{ so } BAC = 67.1^\circ$$

[5 marks]

Answer 10

For the given equation, $a = 5$, $b = 7$, $c = 2$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-7 \pm \sqrt{7^2 - 4 \times 5 \times 2}}{2 \times 5} = \frac{-7 \pm \sqrt{49 - 40}}{10}$$

which gives $x = \frac{-7 \pm 3}{10}$ and final answers of $x = -1$ or $x = -0.4$

[5 marks]

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