

FORM 1
CHAPTER 13

Summative Practice

Section A

1 $60^2 + 25^2 = 3\,600 + 625$
 $= 4\,225$
 $= 65^2$

Answer: **C**

2 $y^2 = x^2 + z^2$
 $z^2 = y^2 - x^2$
 $x^2 = y^2 - z^2$

Answer: **B**

3 $(x + 40)^2 = 48^2 + 14^2$
 $(x + 40)^2 = 2\,304 + 196$
 $= 2\,500$
 $(x + 40)^2 = 50^2$
 $x + 40 = 50$
 $x = 10$ cm

Answer: **A**

4 $AB = 18 - 13$
 $= 5$
 $BE^2 = 12^2 + 5^2$
 $= 144 + 25$
 $= 169$
 $BE^2 = 13^2$
 $BE = 13$ cm

Answer: **D**

5 $OR^2 = 20^2 - 16^2$
 $= 400 - 256$
 $= 144$
 $OR = 12$
 $PO = 2OR$
 $= 2 \times 12$
 $= 24$
 $PQ^2 = 24^2 + 7^2$
 $= 576 + 49$
 $= 625$
 $PQ = 25$ cm

Answer: **C**

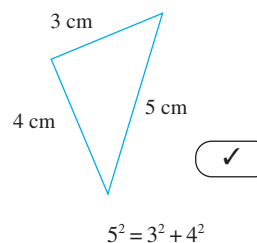
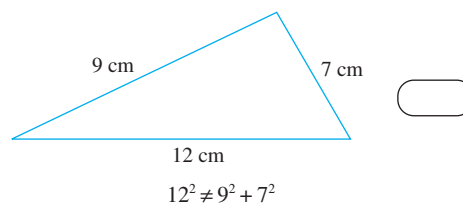
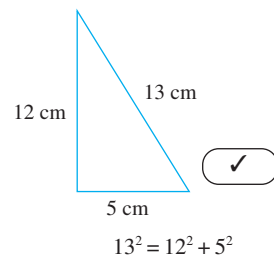
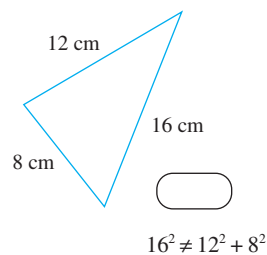
6 $DG^2 = AG^2 - AD^2$
 $= 5^2 - 3^2$
 $= 16$
 $DG = 4$
 Area of square $ABCD = 3 \times 3$
 $= 9$ cm²
 Area of square $DEFG = 4 \times 4$
 $= 16$ cm²
 Area of square $AGHI = 5 \times 5$
 $= 25$ cm²
 Area of triangle $ADG = \frac{1}{2} \times 3 \times 4$
 $= 6$ cm²

Area of the whole diagram
 $= 9$ cm² + 16 cm² + 25 cm² + 6 cm²
 $= 56$ cm²

Answer: **B**

Section B

1 (a)



(b) (i) $x^2 = 7.5^2 - 4.5^2$
 $= 56.25 - 20.25$
 $= 36$
 $x = 6$ cm
 (ii) $x^2 = 12.5^2 + 30^2$
 $= 156.25 + 900$
 $= 1\,056.25$
 $x = 32.5$ cm

Section C

1 (a) (i) $BC^2 = AC^2 - AB^2$
 $BC^2 = 50^2 - 40^2$
 $= 2\,500 - 1\,600$
 $= 900$
 $BC = \sqrt{900}$
 $= 30$ cm

(ii) Perimeter of $ABC = 50 + 40 + 30$
 $= 120$ cm

(b) (i) $JM^2 = 10^2 - 6^2$
 $= 100 - 36$
 $= 64$
 $JM = 8$ cm

Perimeter of $JKLM = 8 + x + 10 + (x + 6)$
 $40 = 2x + 24$
 $2x = 16$
 $x = 8$ cm

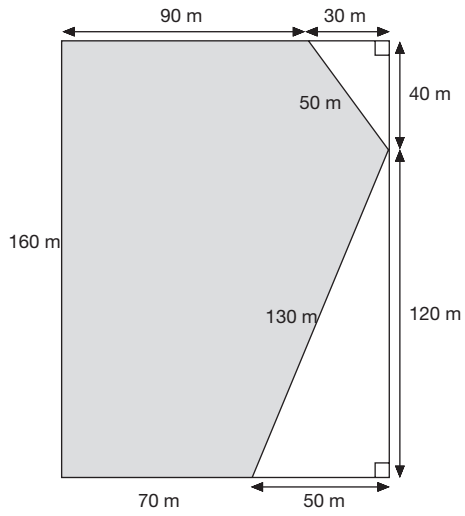
(ii) Area of trapezium $JKLM$

$$= \frac{1}{2} \times 8 \times (8 + 8 + 6)$$

$$= \frac{1}{2} \times 8 \times (22)$$

$$= 88 \text{ cm}^2$$

(c)



$$40^2 + 30^2 = 2\,500$$

$$\sqrt{2\,500} = 50 \text{ m}$$

$$120^2 + 50^2 = 16\,900$$

$$\sqrt{16\,900} = 130 \text{ m}$$

$$\text{Perimeter} = 90 + 50 + 130 + 70 + 160$$

$$= 500 \text{ m}$$

$$\text{Total cost} = \text{RM}12 \times 500$$

$$= \text{RM}6\,000$$