

# Fully-Worked Solutions

## PRACTICE 10

### Section A

1 Perimeter =  $8 + 2(4 + 6 + 2 + 2) + 2 + 2 + 6 + 9$   
 $= 55 \text{ cm}$

Answer: C

2  $23 + 29 + 41 + x = 130$   
 $93 + x = 130$   
 $x = 37$

Answer: C

3 Perimeter of the drain  
 $= 2 \times 80 + 2 \times 50$   
 $= 260$   
 Total cost  
 $= \text{RM}15 \times 260$   
 $= \text{RM}3\,900$

Answer: A

4 Area of triangle  
 $= \frac{1}{2} \times 13 \times 8$   
 $= 52 \text{ cm}^2$

Answer: B

5 Area of triangle = 24  
 $\frac{1}{2} \times x \times 4 = 24$   
 $2x = 24$   
 $x = 12$

Answer: D

6 Area of trapezium  
 $= \frac{1}{2} \times (13 + 19) \times 9$   
 $= 144 \text{ cm}^2$

Answer: A

7 Area of shaded region  
 $= \frac{1}{2} \times (1 + 7 + 5) \times 10 - 5 \times 7$   
 $= 65 - 35$   
 $= 30 \text{ cm}^2$

Answer: A

8 Length of the sides of the square  
 $= \frac{24}{4}$   
 $= 6 \text{ cm}$   
 Area of square  
 $= 6 \times 6$   
 $= 36 \text{ cm}^2$   
 Answer: D

9 Width of the wall

$$= \frac{(16 - 2 - 2)}{2}$$

$$= 6 \text{ cm}$$

Area of the wall

$$= 6 \times 2$$

$$= 12 \text{ cm}^2$$

Total payment

$$= \text{RM}2.50 \times 12$$

$$= \text{RM}30$$

Answer: A

10 Length =  $2x$

Width =  $x$

Area =  $128 \text{ cm}^2$

$$x \times 2x = 128$$

$$2x^2 = 128$$

$$x^2 = 64$$

$$x = \sqrt{64} = 8$$

Perimeter =  $8 + 8 + 2(8) + 2(8)$   
 $= 48 \text{ cm}$

Answer: B

### Section B

1 (a)  $13 \text{ units}^2$

(b)  $14 \text{ units}^2$

(c)  $12 \text{ units}^2$

(d)  $12 \text{ units}^2$

2 (a) Perimeter =  $9 + 10 + 23 + 4 + 17 + 4$   
 $= 67 \text{ cm}$

(b) Perimeter =  $6 + 6 + 6 + 17$   
 $= 35 \text{ cm}$

(c) Perimeter =  $9 + 9 + 12 + 7 + 15$   
 $= 52 \text{ cm}$

(d) Perimeter =  $22 + 15 + 13$   
 $= 50 \text{ cm}$

3 (a) (i) Length of base =  $6 \text{ cm}$

(ii) Height =  $8 \text{ cm}$

(b) (i) Area of shaded region

$$= \frac{1}{2} \times (10 + 18) \times 12 - \frac{1}{2} \times 10 \times 12$$

$$= 168 - 60$$

$$= 108 \text{ cm}^2 \quad [\times]$$

(ii) Area of shaded region

$$= \frac{1}{2} \times 42 \times 30 - \frac{1}{2} \times 6 \times 30$$

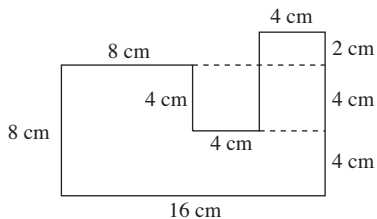
$$= 630 - 90$$

$$= 540 \text{ cm}^2 \quad [\checkmark]$$

- 4 (a) Perimeter of the shape  
 $= 7 + 5 + 16 + 14 + 9 + 14 + 6$   
 $= 71 \text{ cm}$   
 PALSU/FALSE
- (b) Area of parallelogram  $DCFE$   
 $= 9 \times 11$   
 $= 99 \text{ cm}^2$   
 FALSE
- (c) Area of trapezium  $ABCD$   
 $= \frac{1}{2} \times (7 + 9) \times 5$   
 $= 40 \text{ cm}^2$   
 TRUE
- (d) Area of the shape  
 $= 99 + 40 + \left(\frac{1}{2} \times 14 \times 11\right)$   
 $= 99 + 40 + 77$   
 $= 216 \text{ cm}^2$   
 TRUE

### Section C

1 (a)



$$8 + 8 + 4 + 4 + 4 + 4 + 6 + 10 + 16 = 60 \text{ cm}$$

(b) Width =  $x \text{ cm}$

$$\text{Length} = 2x \text{ cm}$$

$$\text{Perimeter} = 2(2x) + 2x$$

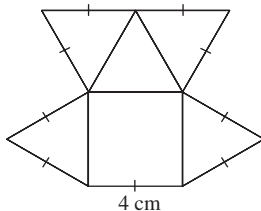
$$36 = 6x$$

$$x = 6$$

$$\text{Area} = 6 \times 2(6) = 72 \text{ cm}^2$$

(c) Length of sides of the square

$$\sqrt{64} = 8 \text{ cm}$$



$$\text{Perimeter} = 9 \times 8 = 72 \text{ cm}$$

(d) Area of kite = 28

$$\frac{1}{2} \times 7 \times x = 28$$

$$7x = 56$$

$$x = 8 \text{ cm}$$

2 (a) Perimeter of rhombus  $ABCD$  = Perimeter of trapezium  $PQRS$

$$4 \times 9 = 12 + 3x$$

$$3x = 24$$

$$x = 8$$

Area of trapezium  $PQRS$

$$= \frac{1}{2} \times (8 + 12) \times 7$$

$$= 70 \text{ cm}^2$$

(b) Area of parallelogram  $ABCD$

$$= 12 \times (18 + x)$$

$$= (216 + 12x) \text{ cm}^2$$

Area of triangle  $EFG$

$$= \frac{1}{2} \times 18 \times 4$$

$$= 36 \text{ cm}^2$$

Area of rectangle  $EGHD$

$$= 18 \times 8$$

$$= 144 \text{ cm}^2$$

Area of shaded region =  $60 \text{ cm}^2$

$$216 + 12x - 60 = 36 + 144$$

$$156 + 12x = 180$$

$$12x = 24$$

$$x = 2$$

(c) Perimeter of rectangle

$$= 2(9 + 5)$$

$$= 28 \text{ cm}$$

Perimeter of rhombus =  $4x$

$$4x = 28$$

$$x = 7 \text{ cm}$$

Area of rhombus

$$= 7 \times 6$$

$$= 42 \text{ cm}^2$$