

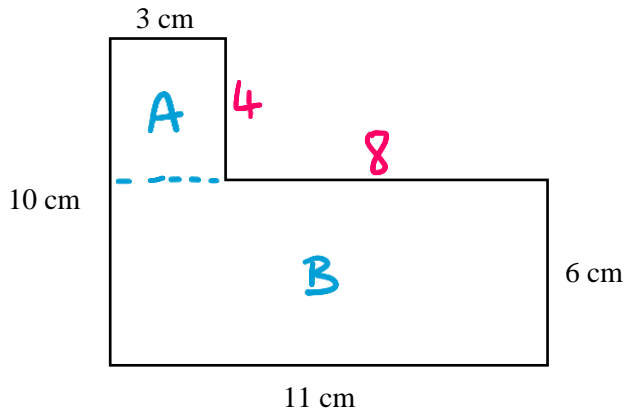


Compound Shapes



REVISE THIS TOPIC

1 A shape is made from two rectangles.



(a) Work out the perimeter of the shape.

$$10 + 3 + 4 + 8 + 6 + 11 = 42$$

..... **42** cm
(2)

(b) Work out the area of the shape.

$$A : 3 \times 4 = 12 \text{ cm}^2$$

$$B : 11 \times 6 = 66 \text{ cm}^2$$

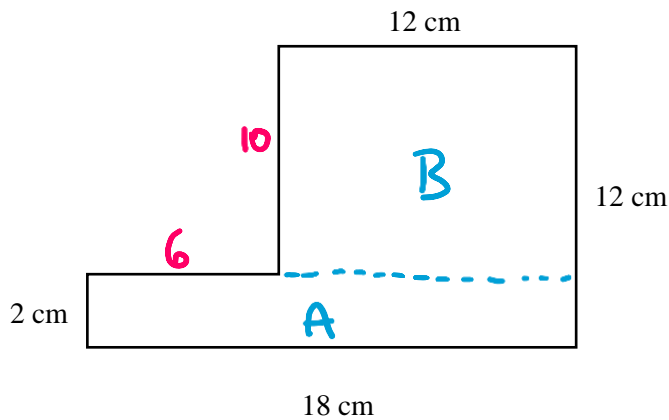
$$12 + 66 = 78$$

..... **78** cm²
(3)

(Total for Question 1 is 5 marks)



2 A shape is made from two rectangles.



(a) Work out the perimeter of the shape.

$$2 + 18 + 12 + 12 + 10 + 6$$

$$\underline{\hspace{1cm} 60 \hspace{1cm}} \text{ cm}$$

(2)

(b) Work out the area of the shape.

$$A: 2 \times 18 = 36 \text{ cm}^2$$

$$B: 10 \times 12 = 120 \text{ cm}^2$$

$$120 + 36$$

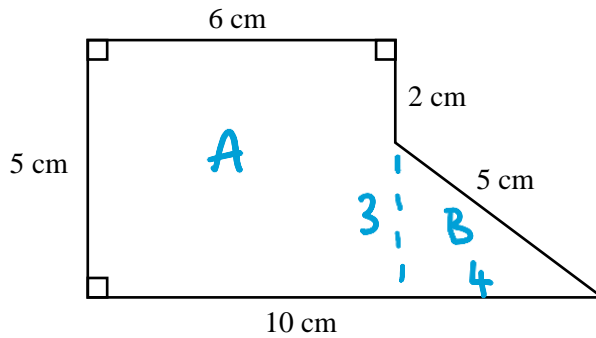
$$\underline{\hspace{1cm} 156 \hspace{1cm}} \text{ cm}^2$$

(3)

(Total for Question 2 is 5 marks)



3 Here is a pentagon.



(a) Work out the perimeter of the pentagon.

$$5 + 6 + 2 + 5 + 10 = 28$$

$\underline{\hspace{1cm} 28 \hspace{1cm}}$ cm
 (2)

(b) Work out the area of the pentagon.

$$A: 6 \times 5 = 30 \text{ cm}^2$$

$$B: \frac{1}{2} \times 4 \times 3 = 6 \text{ cm}^2$$

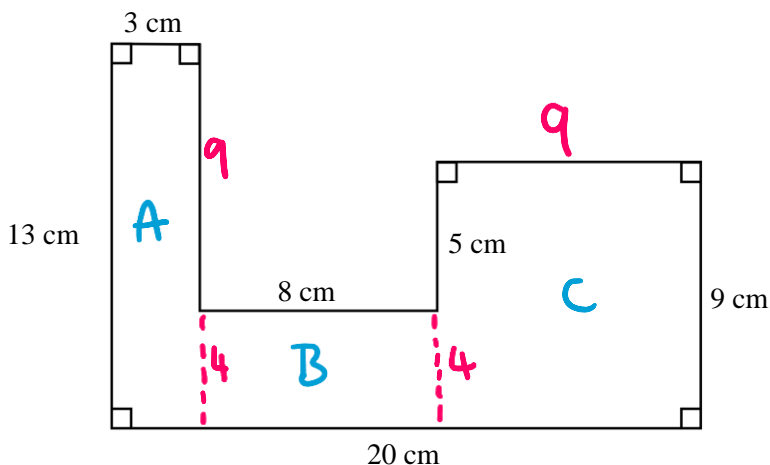
$$30 + 6 = 36$$

$\underline{\hspace{1cm} 36 \hspace{1cm}}$ cm²
 (3)

(Total for Question 3 is 5 marks)



4 A shape is made from three rectangles.



(a) Work out the perimeter of the shape.

$$13 + 3 + 9 + 8 + 5 + 9 + 9 + 20$$

$$\underline{\hspace{1cm} 76 \hspace{1cm}} \text{ cm}$$

(3)

(b) Work out the area of the shape.

$$\begin{aligned}
 A: & 13 \times 3 = 39 \text{ cm}^2 \\
 B: & 8 \times 4 = 32 \text{ cm}^2 \\
 C: & 9 \times 9 = 81 \text{ cm}^2
 \end{aligned}$$

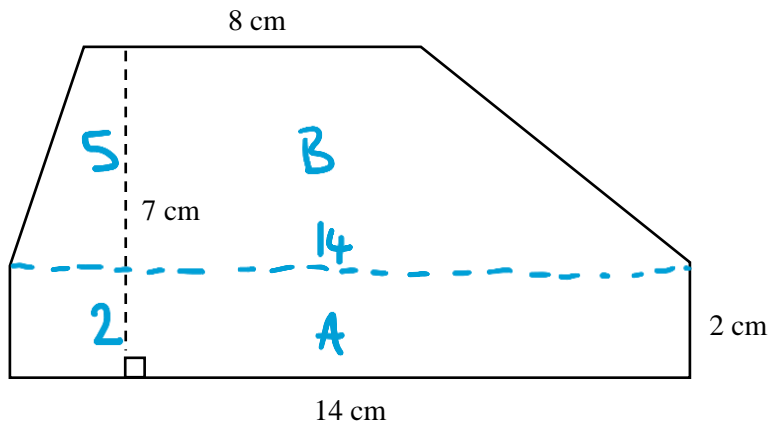
$$\underline{\hspace{1cm} 152 \hspace{1cm}} \text{ cm}^2$$

(4)

(Total for Question 4 is 7 marks)



5 Here is a shape made from a trapezium and a rectangle.



Work out the area of the shape.

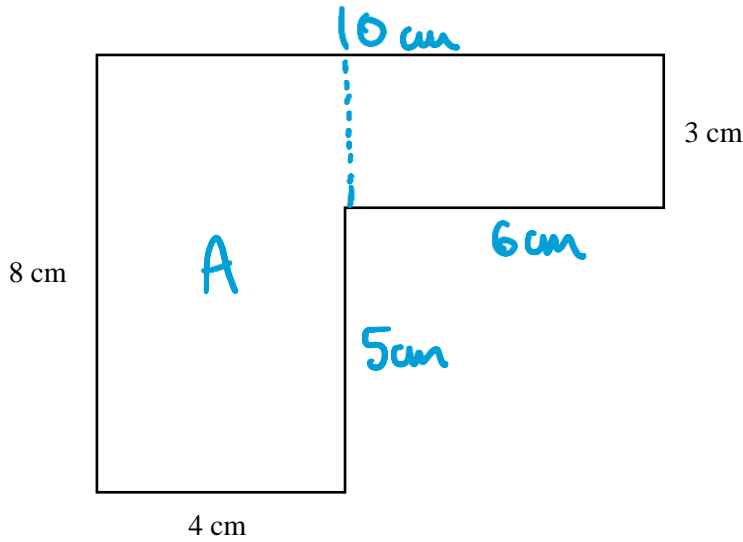
$$A: 14 \times 2 = 28 \text{ cm}^2$$

$$B: \frac{1}{2}(14+8) \times 5 = 55 \text{ cm}^2$$

$$55 + 28 = 83$$



6 A shape is made from rectangles.



The area of the shape is 50 cm^2
Work out the perimeter of the shape.

$$A: 8 \times 4 = 32 \text{ cm}^2$$

$$50 - 32 = 18 \text{ cm}^2$$

$$18 \div 3 = 6$$

$$8 + 4 + 5 + 6 + 3 + 10 = 36$$

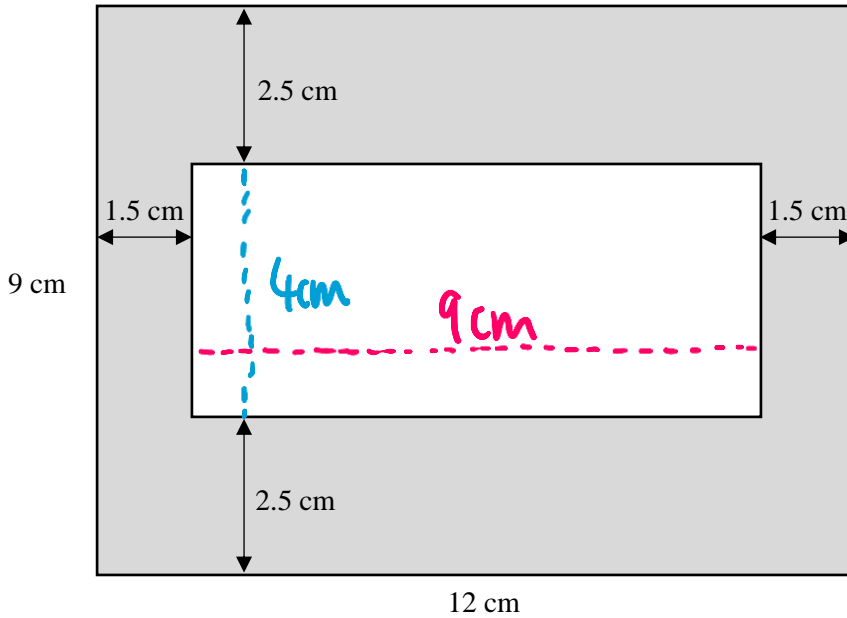
36

..... cm

(Total for Question 6 is 5 marks)



7 A rectangular hole is cut from a larger rectangle.



Work out the area of the shaded region.

$$9 - 2.5 - 2.5 = 4$$

$$12 - 1.5 - 1.5 = 9$$

$$12 \times 9 = 108$$

$$9 \times 4 = 36$$

$$108 - 36 = 72$$

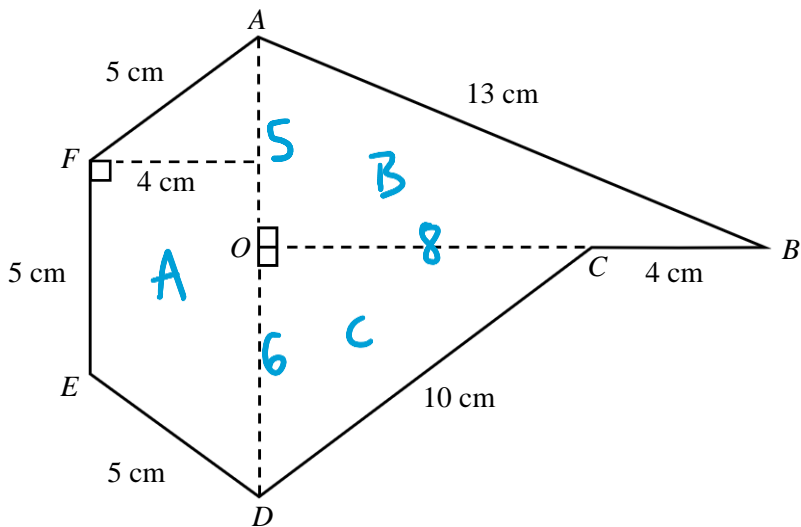
72

.....cm²

(Total for Question 7 is 4 marks)



8 $ABCDEF$ is a hexagon made from two right angled triangles and a trapezium.



$AO = 5 \text{ cm}$
 $AD = 11 \text{ cm}$
 $OC = 8 \text{ cm}$

(a) Work out the perimeter of the shape.

$$5 + 5 + 5 + 13 + 4 + 10$$

42
cm
 (2)

(b) Work out the area of the shape.

$$\begin{aligned}
 A: & \quad \frac{1}{2}(5+11) \times 4 = 32 \text{ cm}^2 \\
 B: & \quad \frac{1}{2} \times 5 \times 8 = 20 \text{ cm}^2 \\
 C: & \quad \frac{1}{2} \times 6 \times 8 = 24 \text{ cm}^2
 \end{aligned}$$

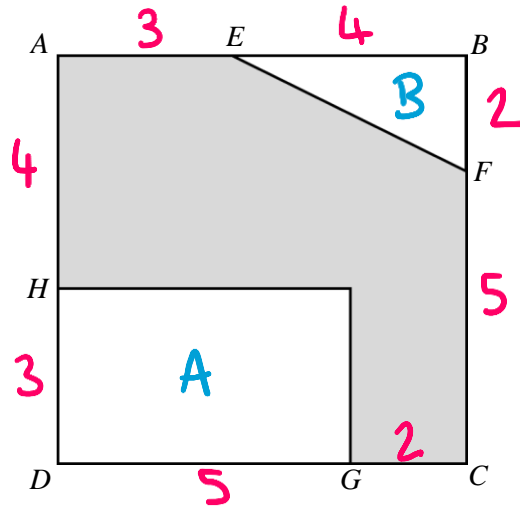
$$32 + 20 + 24$$

76
cm²
 (4)

(Total for Question 8 is 6 marks)



9 $ABCD$ is a square.



$GC = 2\text{ cm}$ $AE = 3\text{ cm}$ $EB = AH = 4\text{ cm}$ $FC = 5\text{ cm}$

Work out the area of shaded region.

$$7 \times 7 = 49$$

$$3 \times 5 = 15$$

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

$$49 - 15 - 4 = 30$$

30

30

..... cm^2

(Total for Question 9 is 5 marks)

