

Area of a trapezium and compound shapes

Worksheet | Answers

Area and perimeter of compound shapes

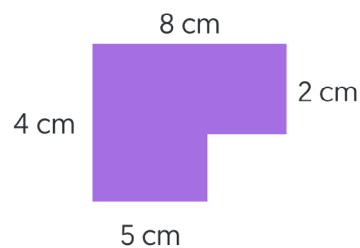
1. Find the area of this shape.

Missing sides: $4 - 2 = 2$ and $8 - 5 = 3$

Area 1: $8 \times 2 = 16$

Area 2: $2 \times 5 = 10$

Total: $16 + 10 = 26 \text{ cm}^2$

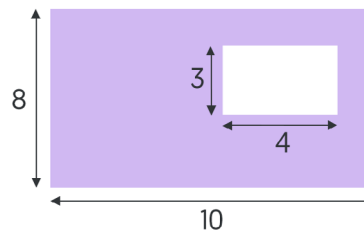


2. Find the shaded area.

Area of big rectangle = $8 \times 10 = 80$

Area of small rectangle = $3 \times 4 = 12$

Shaded area = $80 - 12 = 68 \text{ units}^2$

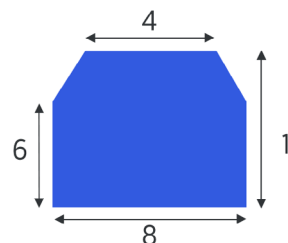


3. Find the area of this compound shape.

Area of rectangle = $6 \times 8 = 48$

Area of trapezium = $(4 + 8) \times 5 \div 2 = 30$

Total area = $48 + 30 = 78 \text{ units}^2$



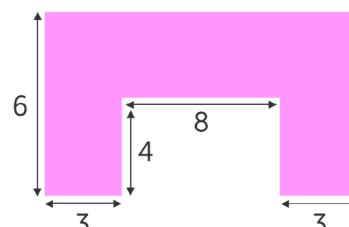
4. Find the area of this shape.

Easiest way of doing this one is to subtract the area of the white rectangle from the area of the pink and white rectangles combined.

Pink rectangle = $6 \times 14 = 84$

White rectangle = $8 \times 4 = 32$

Shaded area = $84 - 32 = 52 \text{ units}^2$

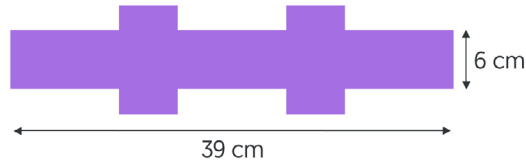


5. This shape is made up of five identical rectangles. Find the total area.

$$\text{Length of one rectangle} = (39 - 6 - 6) \div 3 = 9 \text{ cm}$$

$$\text{one rectangle} = 9 \times 6 = 54 \text{ cm}^2$$

$$\text{Five rectangles} = 54 \times 5 = 270 \text{ cm}^2$$



6. Find the area of the shape below.

Split into 3 rectangles

$$x = 26 - 10 - 7 = 9$$

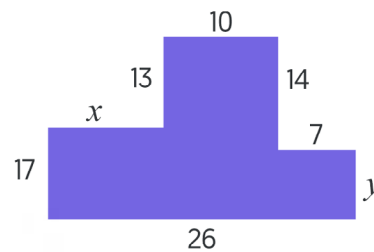
$$y + 14 = 17 + 13 \quad y = 16$$

$$\text{Area 1: } 17 \times 9 = 153$$

$$\text{Area 2: } 10 \times 30 = 300$$

$$\text{Area 3: } 7 \times 16 = 112$$

$$\text{Total} = 565 \text{ units}^2$$



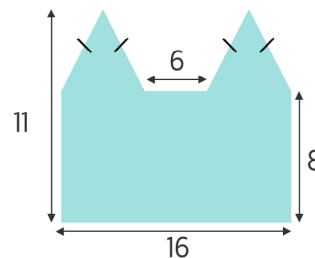
7. Find the area of this shape. It has one line of symmetry and all lengths are given in centimetres.

$$\text{Area of rectangle} = 8 \times 16 = 128$$

$$\text{Base of triangles} = (16 - 6) \div 2 = 5$$

$$\text{Area of one triangle} = 3 \times 5 \div 2 = 7.5$$

$$\text{Total} = 128 + 7.5 + 7.5 = 143 \text{ cm}^2$$



8. Find the shaded area. All lengths are given in metres.

$$\text{Area of rectangle} = 8 \times 11 = 88 \text{ m}^2$$

$$\text{Area of trapezium} = (2 + 4) \times 5 \div 2 = 15 \text{ m}^2$$

$$\text{Area of shaded} = 88 - 15 = 73 \text{ m}^2$$

