

Area of a trapezium and compound shapes

Worksheet | Answers

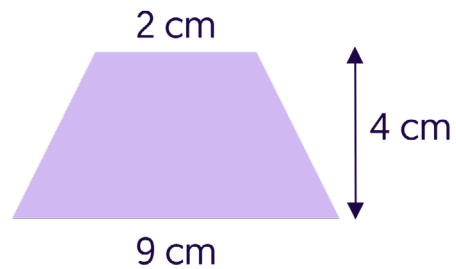
Area of a trapezium

1. Which of the following can be a unit of area?

- a. cm
- b. m
- c. m^2
- d. cm^3

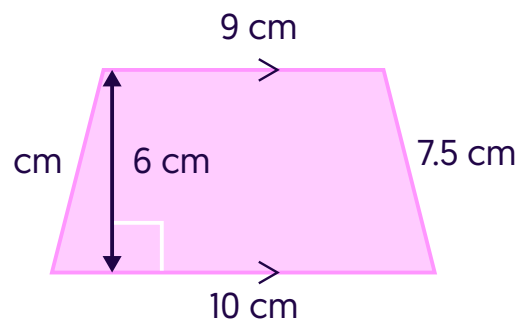
2. What is the area of this shape?

- a. 13 cm^2
- b. 20 cm^2
- c. 36 cm^2
- d. 22 cm^2



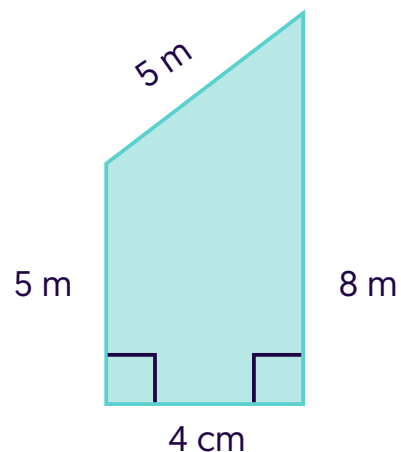
3. What is the area of the following trapezium?

- a. 66.5 cm^2
- b. 114 cm^2
- c. 57 cm^2
- d. 71.25 cm^2



4. What is the area of the following trapezium?

- a. 22.5 cm^2
- b. 26 cm^2
- c. 36 cm^2
- d. 32.5 cm^2

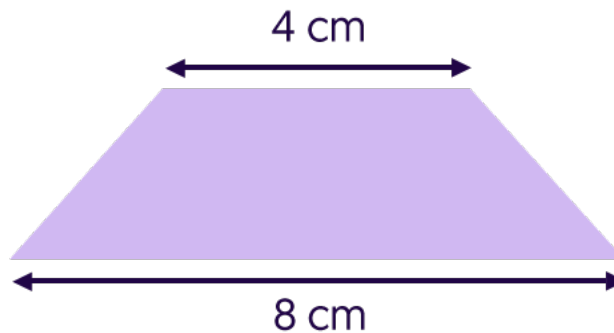


5. The area of this trapezium is 24cm^2 . What is the height?

$$(8 + 4) \times \text{height} \div 2 = 24$$

$$12 \times \text{height} = 48$$

$$\text{Height} = 4 \text{ cm}$$



6. A wall of a building has the shape below.

Joanna wants to paint the wall. The paint costs £4.70 for enough to cover 4 m^2 .

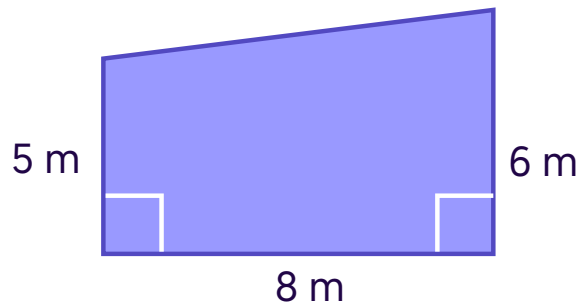
How much will it cost to buy the paint?

$$\text{Area of trapezium} = (5 + 6) \times 8 \div 2 = 44 \text{ cm}^2$$

$$44 \div 4 = 11$$

She needs 11 cans

$$4.70 \times 11 = \text{£}51.70$$



Challenge

7. Find the shaded area:

Easiest way is to find the area of the rectangle and then subtract the trapezium area.

$$\text{Rectangle} = 12 \times 8 = 96 \text{ cm}^2$$

$$\text{Trapezium} = (12 + 7) \times 3.5 \div 2 = 33.25 \text{ cm}^2$$

$$\text{Shaded area} = 96 - 33.25 = 62.75 \text{ cm}^2$$

