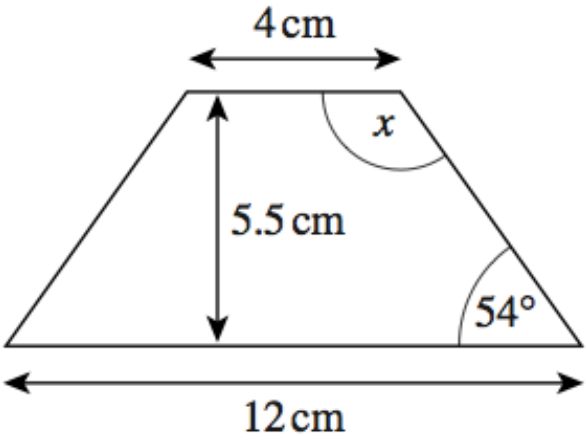
Geometry - Trapezium Area

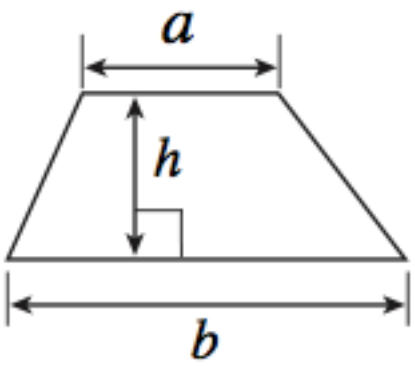
The diagram shows an **isosceles** trapezium.



Not drawn accurately

(a) Work out the value of x.

(b) Work out the area of the trapezium.



Area of trapezium $= \frac{1}{2}(a+b)h$

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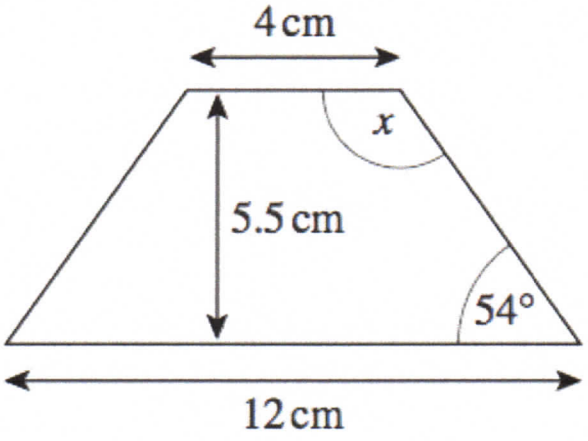


Not drawn accurately

(a) Work out the value of x.

$x = 180 - 54 = 126°$

(x and $54°$ are allied angles which add up to $180°$)

(b) Work out the area of the trapezium.

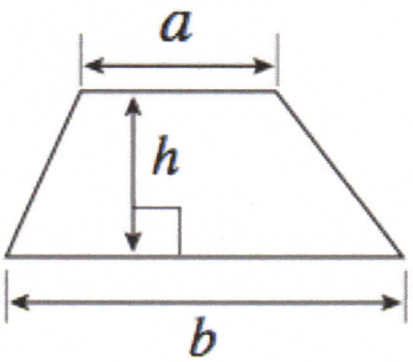
$$\text{Area} = \frac{1}{2}(12+4) \times 5.5$$

$$= \frac{1}{2} \times 16 \times 5.5$$

$$= 8 \times 5.5$$

$$= 44 \text{ cm}^2$$

$$\begin{array}{r} 5.5 \\ \times \quad 8 \\ \hline 44.0 \end{array}$$



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