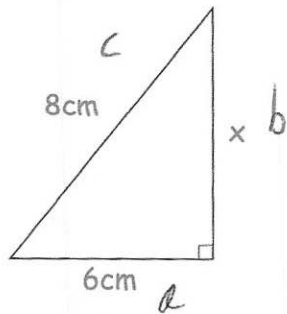


11th December



Corbettmaths



Find x

$$a^2 + b^2 = c^2$$

$$6^2 + x^2 = 8^2$$

$$36 + x^2 = 64$$

$$x^2 = 28$$

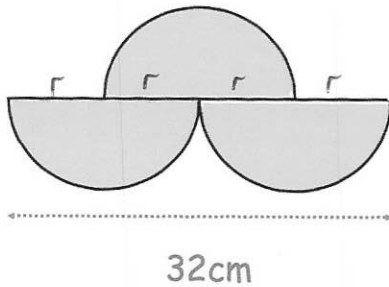
$$x = \sqrt{28} = 5.29 \text{ cm}$$

$2w^8$	w^4	$3w^{12}$	$w = 4$
$4w^{16}$	x^1	$7x^7$	$x = 1$
$22x^{22}$	w^4	y^{-2}	$y = -2$

Every row adds up to 24.
Find the value of $w^2 + x^2 + y^2$

$$w^2 + x^2 + y^2$$

$$16 + 1 + 4 = 21$$



Shown is a shape made from semi-circles.

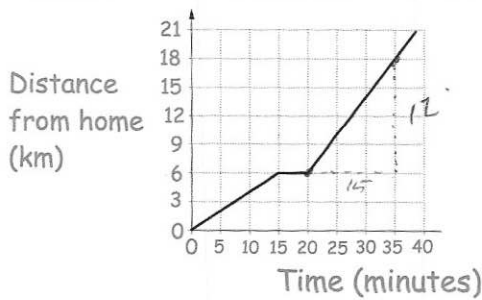
Find the area.

$$\frac{1}{2}(\pi \times 8^2) = 100.53 \text{ cm}^2$$

$$32 = 4r$$

$$r = 8$$

$$100.53 \times 3 = 301.59 \text{ cm}^2$$



The distance-time graph shows **part** of Hannah's journey to Ipswich.

She leaves her home and travels for 15 minutes.
She then stops for 5 minutes to make a phone call and carries on her journey for another 2 hours at a constant speed.

What speed was Hannah travelling in the first 15 minutes of the journey

6 km in 15 min
12 km in 30 min
24 km in 60 min
24 km/h

How far does Hannah travel, in total, to get to Ipswich?

12 km in 15 mins
48 km in 60 mins
48 km/h

$$d = s \times t$$

$$d = 48 \times 2 = 96 \text{ km}$$

96 + 6 = 102 km

(102)