

17th August

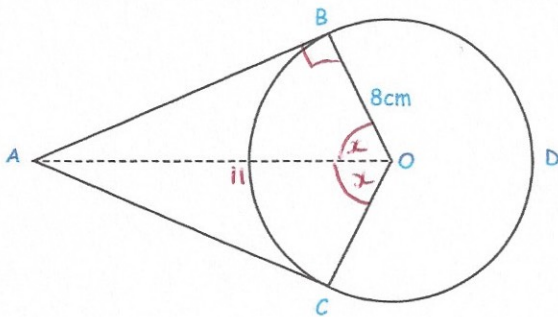


Corbettmaths

Expand

$$(3 + \sqrt{2})(1 - \sqrt{2})$$

$$3 - 3\sqrt{2} + \sqrt{2} - 2 = 1 - 2\sqrt{2}$$



Work out the length of arc BDC

$$\cos x = \frac{8}{11} \quad x = 43.34$$

$$\hat{BOC} = 86.68$$

$$360 - 86.68 = 273.32$$

$$\frac{273.32}{360} \times \pi \times 16 = 38.2 \text{ cm}$$

B, C and D are points on a circle of radius 8cm.

AB and AC are tangents to the circle.

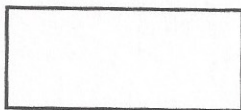
AO = 11cm

Work out the area of sector BOC

$$\frac{86.68}{360} \times \pi \times 8^2 = 48.4 \text{ cm}^2$$

The area of the rectangle is greater than 10 cm^2

$$(2x - 1) \text{ cm}$$



$$(x + 2)$$

Work out the range of possible values of x

$$x > 1.81$$

$$(2x - 1)(x + 2) > 10$$

$$2x^2 + 3x - 2 > 10$$

$$2x^2 + 3x - 12 > 0$$

$$x < -3.31 \quad x > \underline{1.81}$$

Can't be negative