

Example 2.

Find the area of the sector ABC, where $\angle ABC = 60^\circ$ and $r = 8\text{cm}$, give your answer

$$60^\circ = 60 \times \frac{\pi}{180}$$

$$= \frac{\pi}{3}$$

$$A = \frac{1}{2} r^2 \theta \quad \text{where } \theta = \frac{\pi}{3}, r = 8\text{cm}$$

$$A = \frac{1}{2} \times 8 \times 8 \times \frac{\pi}{3}$$

$$A = \frac{32\pi}{3}$$

$$A = 33.5 \text{ cm}^2 \text{ (2sf)}$$

