

Circles- Area and Sector Area

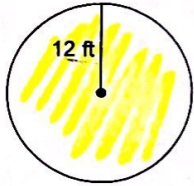
$$A = \pi r^2$$

Find the area of each.

(a) Leave in terms of pi.

(b) Round to nearest tenth.

1)



$$A = \pi (12)^2$$

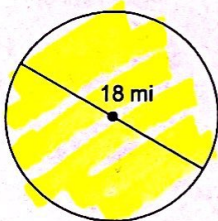
$$A = 144\pi \text{ ft}^2$$

$$A \approx 452.4 \text{ ft}^2$$

2)



3)

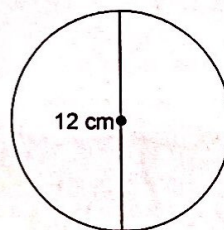


$$A = \pi (9)^2$$

$$A = 81\pi \text{ mi}^2$$

$$A \approx 254.5 \text{ mi}^2$$

4)



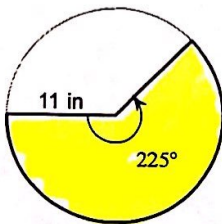
Find the area of each sector.

(a) Leave in terms of pi.

(b) Round to nearest tenth.

$$\text{Sector area} = \frac{\pi r^2 \theta}{360}$$

5)

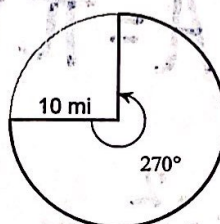


$$A = \frac{\pi (11)^2 (225^\circ)}{360}$$

$$A = \frac{605\pi}{8} \text{ in}^2$$

$$A \approx 237.6 \text{ in}^2$$

6)



$$(4) \pi = A$$

$$4 \pi (4) = A$$

$$4 \pi (4) = A$$