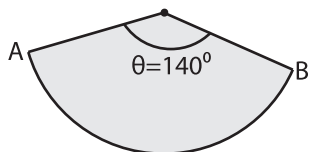


Finding Area of a Sector

Example:



Length of the arc = 17.10 yd
Area = ?

$$\text{Length of the arc} = \frac{\theta \times \pi \times r}{180^\circ}$$

$$17.10 = \frac{140^\circ \times 3.14 \times r}{180^\circ}$$

$$r = 7 \text{ yd}$$

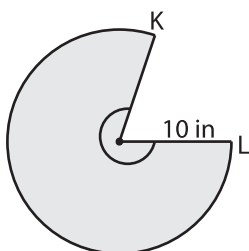
$$\text{Area of a sector} = \frac{\theta \times \pi \times r^2}{360^\circ}$$

$$= \frac{140 \times 3.14 \times 7 \times 7}{360^\circ}$$

$$= 59.83 \text{ yd}^2$$

Find the area of each shaded region. Round the answer to two decimal places. (use $\pi=3.14$)

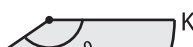
1)



Length of the arc KL = 49.72 in

Area = _____

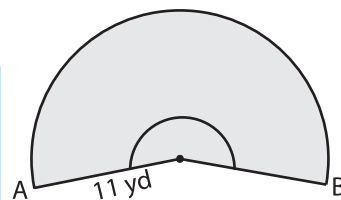
2)



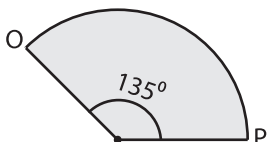
Length of the arc AB = 38.38 yd

Area = _____

3)

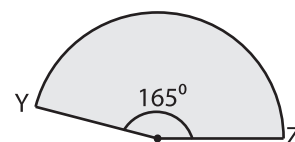


4)



Length of the arc OP = 44.75 ft

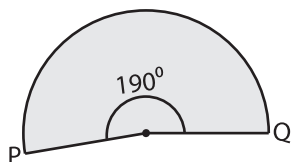
Area = _____



Length of the arc YZ = 48.93 in

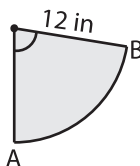
Area = _____

5)



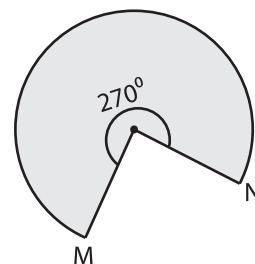
Length of the arc PQ = 46.40 yd

Area = _____



Length of the arc AB = 17.79 in

Area = _____



Length of the arc MN = 37.68 ft

Area = _____

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