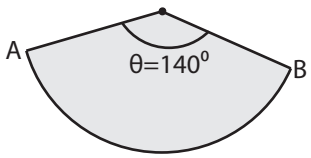


Finding Area of a Sector

Example:



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

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

$r = 7 \text{ yd}$

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

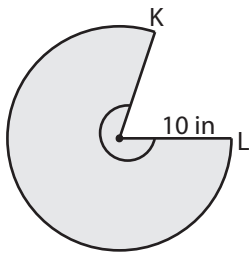
$= \frac{140 \times 3.14 \times 7 \times 7}{360^\circ}$

$= 59.83 \text{ yd}^2$

Length of the arc = 17.10 yd
Area = ?

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 = _____

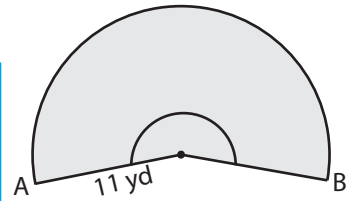
2)



Length of the arc AB = 38.38 yd

Area = _____

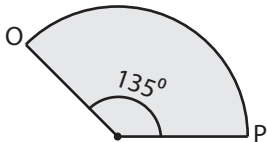
3)



Length of the arc OP = 44.75 ft

Area = _____

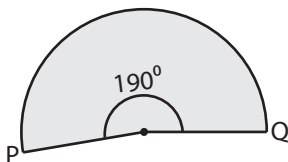
4)



Length of the arc YZ = 48.93 in

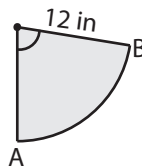
Area = _____

7)



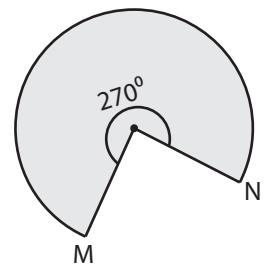
Length of the arc PQ = 46.40 yd

Area = _____



Length of the arc AB = 17.79 in

Area = _____



Length of the arc MN = 37.68 ft

Area = _____

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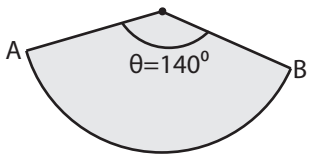
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Finding Area of a Sector

Example:



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

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

$r = 7 \text{ yd}$

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

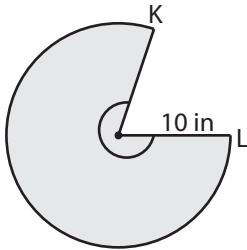
$$= \frac{140 \times 3.14 \times 7 \times 7}{360^\circ}$$

$= 59.83 \text{ yd}^2$

Length of the arc = 17.10 yd
Area = ?

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

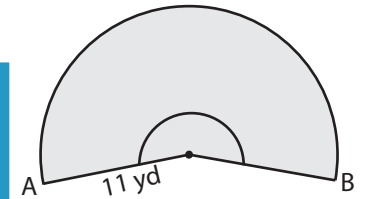
1)



Length of the arc KL = 49.72 in

Area = **248.5**

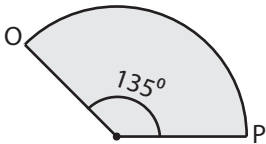
2)



Length of the arc AB = 38.38 yd

Area = **211.08 yd²**

4)



Length of the arc OP = 44.75 ft

Area = **425.0**

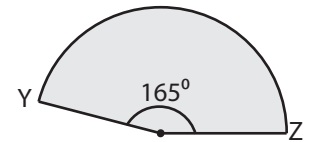
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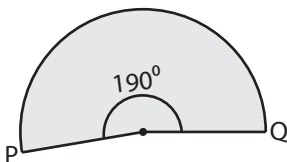
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Length of the arc YZ = 48.93 in

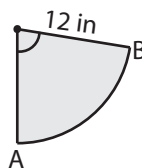
Area = **415.92 in²**

7)



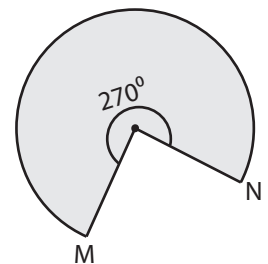
Length of the arc PQ = 46.40 yd

Area = **324.82 yd²**



Length of the arc AB = 17.79 in

Area = **106.76 in²**



Length of the arc MN = 37.68 ft

Area = **150.72 ft²**