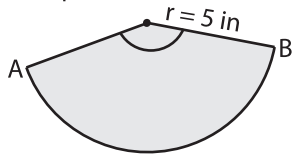


Finding Arc Length

Example:



Area = 32.71 in²
s=?

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

$$32.71 = \frac{\theta \times 3.14 \times 5 \times 5}{360^\circ}$$

$$\theta = 150^\circ$$

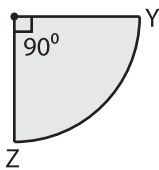
$$\text{Length of the arc AB} = \frac{\theta \times \pi \times r}{180^\circ}$$

$$= \frac{150^\circ \times 3.14 \times 5}{180^\circ}$$

$$= 13.08 \text{ in}$$

Find the arc length for each sector. Round the answer to two decimal places. (use $\pi=3.14$)

1)



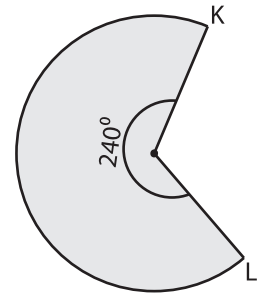
Area = 153.86 yd²

Length of the arc YZ = _____

2)



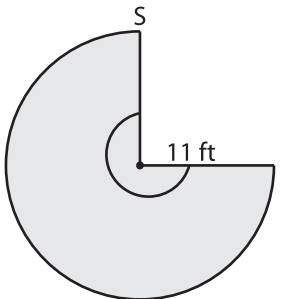
3)



Area = 52.33 ft²

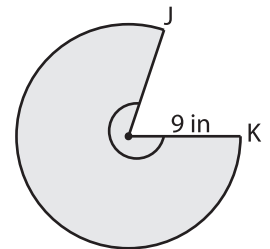
Length of the arc KL = _____

4)



Area = 284.96 ft²

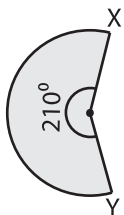
Length of the arc RS = _____



Area = 201.35 in²

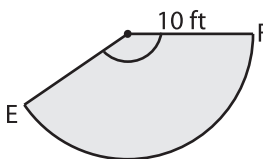
Length of the arc JK = _____

7)



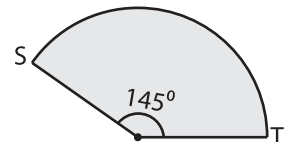
Area = 412.13 in²

Length of the arc XY = _____



Area = 130.83 ft²

Length of the arc EF = _____



Area = 20.24 yd²

Length of the arc ST = _____

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