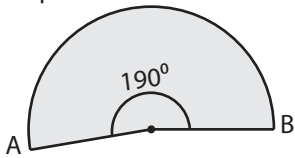


Finding Area of a Sector

Example:



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

$$26.40 = \frac{190^\circ \times 3.14 \times r}{180^\circ}$$

$r = 8 \text{ in}$

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

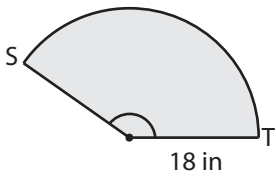
$$= \frac{190 \times 3.14 \times 8 \times 8}{360^\circ}$$

$= 106.06 \text{ in}^2$

Length of the arc = 26.40 in
Area = ?

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

1)



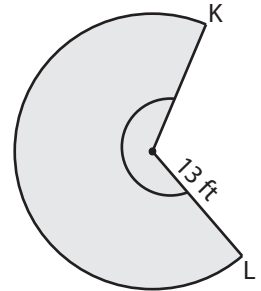
Length of the arc ST = 45.53 in

Area = _____

2)



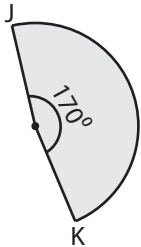
3)



Length of the arc KL = 54.43 ft

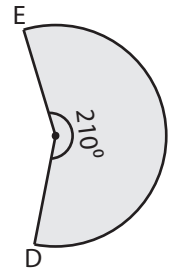
Area = _____

4)



Length of the arc JK = 26.69 ft

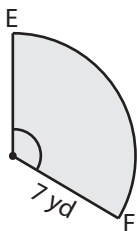
Area = _____



Length of the arc DE = 18.32 yd

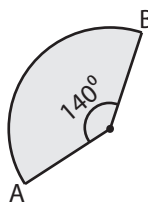
Area = _____

7)



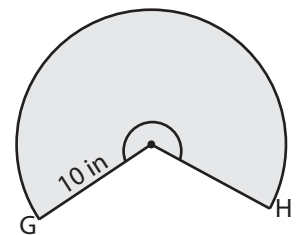
Length of the arc EF = 14.65 yd

Area = _____



Length of the arc AB = 26.86 ft

Area = _____



Length of the arc GH = 41.87 in

Area = _____

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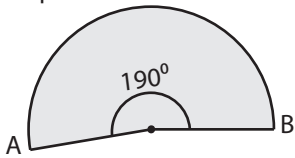
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Finding Area of a Sector

Example:



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

$$26.40 = \frac{190^\circ \times 3.14 \times r}{180^\circ}$$

$r = \mathbf{8 \text{ in}}$

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

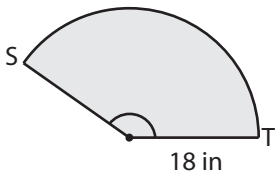
$$= \frac{190 \times 3.14 \times 8 \times 8}{360^\circ}$$

$= \mathbf{106.06 \text{ in}^2}$

Length of the arc = 26.40 in
Area = ?

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

1)



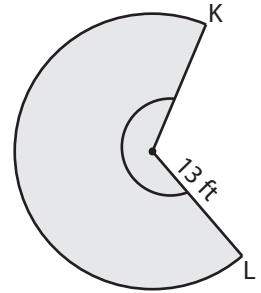
Length of the arc ST = 45.53 in

Area = **409.7**

2)



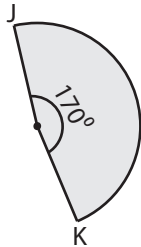
3)



Length of the arc KL = 54.43 ft

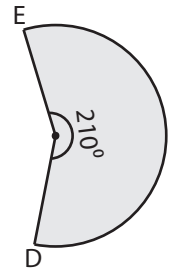
Area = **353.77 ft²**

4)



Length of the arc JK = 26.69 ft

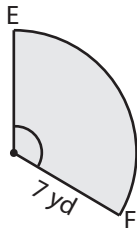
Area = **120.1**



Length of the arc DE = 18.32 yd

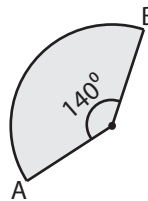
Area = **45.79 yd²**

7)



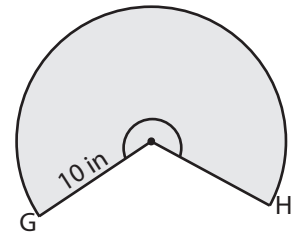
Length of the arc EF = 14.65 yd

Area = **51.29 yd²**



Length of the arc AB = 26.86 ft

Area = **147.75 ft²**



Length of the arc GH = 41.87 in

Area = **209.33 in²**

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