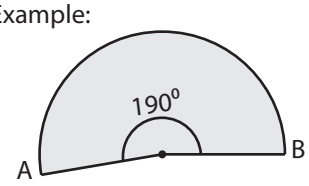
Name : _____ Score : _____

Sheet 2

Finding Area of a Sector

Example:



Length of the arc=26.40 in

Area=?

Length of the arc $= \frac{\theta \times \pi \times r}{180^0}$

$26.40 = \frac{190^0 \times 3.14 \times r}{180^0}$

r = **8 in**

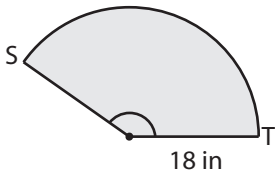
Area of a sector $= \frac{\theta \times \pi \times r^2}{360^0}$

$= \frac{190 \times 3.14 \times 8 \times 8}{360^0}$

= **106.06 in²**

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

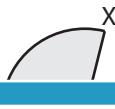
1)



Length of the arc ST = 45.53 in

Area = _____

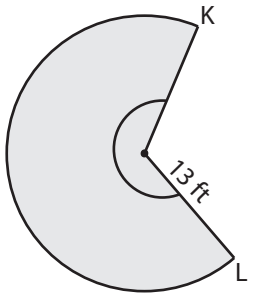
2)



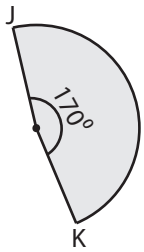
th of the arc KL = 54.43 ft

Area = _____

3)

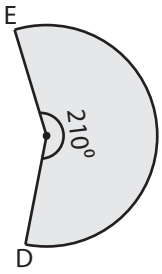


4)



Length of the arc JK = 26.69 ft

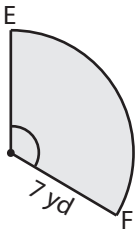
Area = _____



th of the arc DE = 18.32 yd

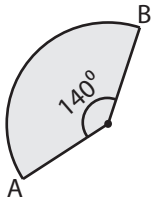
Area = _____

7)



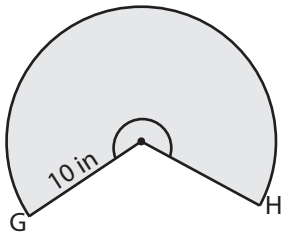
Length of the arc EF = 14.65 yd

Area = _____



Length of the arc AB = 26.86 ft

Area = _____



Length of the arc GH = 41.87 in

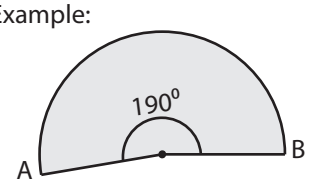
Area = _____

Name : _____ **Answer Key** Score : _____

Sheet 2

Finding Area of a Sector

Example:



Length of the arc=26.40 in

Area=?

Length of the arc $= \frac{\theta \times \pi \times r}{180^0}$

$26.40 = \frac{190^0 \times 3.14 \times r}{180^0}$

r = **8 in**

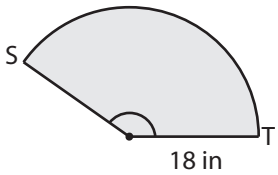
Area of a sector $= \frac{\theta \times \pi \times r^2}{360^0}$

$= \frac{190 \times 3.14 \times 8 \times 8}{360^0}$

= **106.06 in²**

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

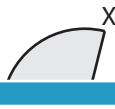
1)



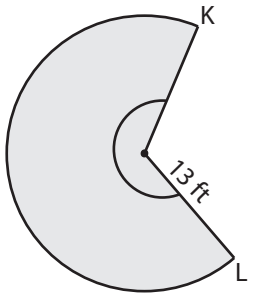
Length of the arc ST = 45.53 in

Area = **409.7**

2)



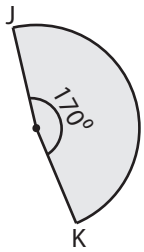
3)



th of the arc KL = 54.43 ft

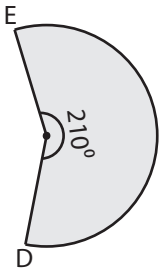
Area = **353.77 ft²**

4)



Length of the arc JK = 26.69 ft

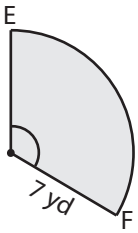
Area = **120.1**



th of the arc DE = 18.32 yd

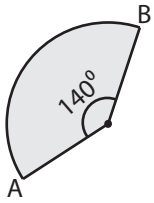
Area = **45.79 yd²**

7)



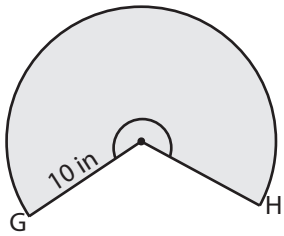
Length of the arc EF = 14.65 yd

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**