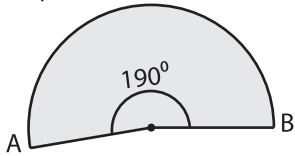**Finding Area of a Sector**   Sheet 2

Example:

190⁰

A   B

Length of the arc=26.40 in
Area=?

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

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

r = 8 in
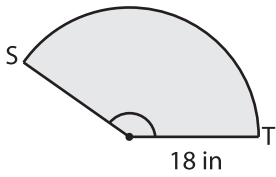
Area of a sector = $\dfrac{\theta \times \pi \times r^2}{360^0}$

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

= 106.06 in²

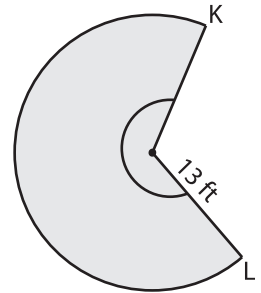Find the area of each shaded region. Round the answer to two decimal places. (use π=3.14)

1)

S

T

18 in

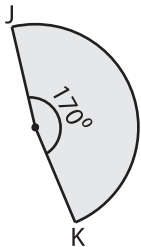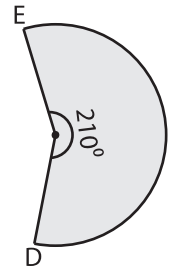Length of the arc ST = 45.53 in

Area = _____

2)

X

Length of the arc ... = ...

Area = _____

3)

K

13 ft

L

th of the arc KL = 54.43 ft

Area = _____

4)

J

170⁰

K

Length of the arc JK = 26.69 ft
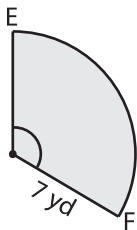
Area = _____

E

210⁰

D

th of the arc DE = 18.32 yd

Area = _____

7)

E

7 yd

F

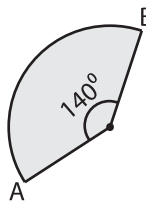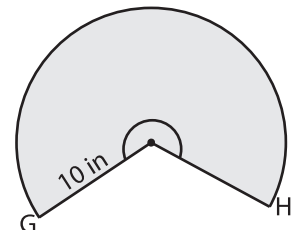Length of the arc EF = 14.65 yd

Area = _____

B

140⁰

A

Length of the arc AB = 26.86 ft

Area = _____

10 in

G   H

Length of the arc GH = 41.87 in

Area = _____