Circles worksheet #3   Name: _____

1) Find the Arc Length of the following sectors

a)

B

6 cm

120°

A

b)

D

60°

C

Diameter = 24 cm

c)

E

30°

F

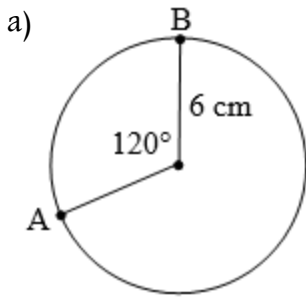Radius = 30 in

d)

10 cm

Y

70°

X
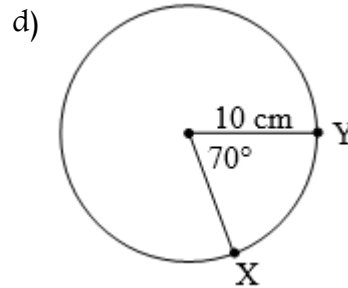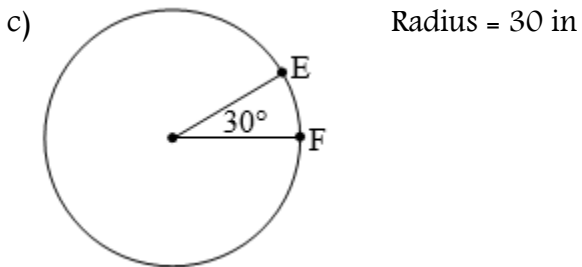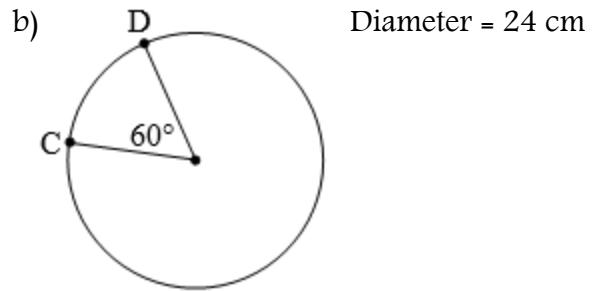
2) Find the Area of the following sectors

a)

16 in 90°

b)

8 m

135°

c)

40°

18 m
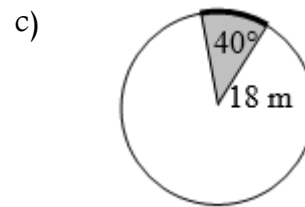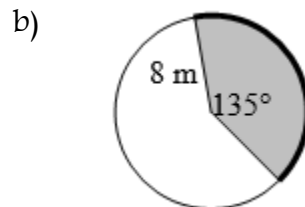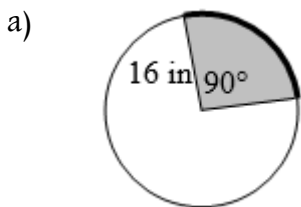
3) A circle has an arc whose measure is 80° and whose length is 88π. What is the diameter of the circle?

4) A circle has a circumference of 25π. Find the length of an arc whose central angle is 50°.

5) Find the measure of the central angle of a circle if its minor arc length is 14π and the radius is 18 inches.

6) The area of a circle is $225\pi \; in^2$. Find the area of the sector whose central angle is 45°.

7) The central angle of a sector is 60° and the area of the circle is $144\pi \; cm^2$. What is the area of the sector?

8) Find the radius of a circle which has a sector area of $9\pi \; cm^2$ and a central angle of 72°.

9) Find the measure of a central angle of a circle if its sector area is $5\pi \; in^2$ and the radius is 6 in.