Area of a Circle

Find the area of each circle described. Round your answers to the nearest hundredth.

1.
$$r = 3 \text{ cm}$$

2.
$$r = 3\frac{1}{2}$$
 ft

3.
$$r = 2.3 \text{ mm}$$

4.
$$d = 13$$
 ft

5.
$$d = 2\frac{2}{3}$$
 mi

6.
$$d = 6.42$$
 in.

7.
$$C = 80 \text{ mm}$$

8.
$$C = 15.54$$
 in.

9.
$$C = 12\frac{1}{2}$$
 mi

In a circle with radius of 5 cm, find the area of a sector whose central angle has the following measure. Round to the nearest hundredth.