Module 9 **Characteristics of Geometric Shapes**
Lesson 3 **Circles**

Use the circle at right for questions 1 – 6.
Point Q is the center of the circle.

1. Name the circle.

    Circle Q

2. Name all the chords shown in the circle.

    $\overline{AD}$ and $\overline{BC}$

3. Name all the diameters shown in the circle.

    $\overline{AD}$

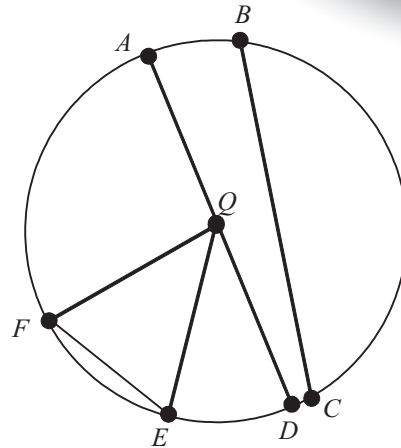4. Name all the radii shown in the circle.

    $\overline{QA}$, $\overline{QF}$, $\overline{QE}$, and $\overline{QD}$

5. Classify $\triangle FQE$ by its sides. Explain why it is classified in this way.

    Isosceles: $\overline{QF}$ and $\overline{QE}$ are radii, and all radii in the same circle are congruent. An isosceles triangle has at least two congruent sides.
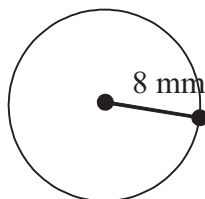
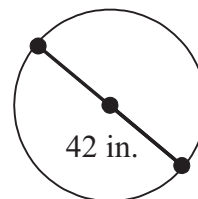6. Find the length of $\overline{AD}$ if $EQ = 6.5$ cm.

    $\overline{AD} = 13$ cm

Find the circumference of each circle. Round to the nearest tenth.

7.

8 mm

About 50.2 mm

8.

42 in.

About 131.9 inches

9. The circumference of a circular rug is about 57 inches. To the nearest inch, what is the radius of the rug?

The radius of the rug is about nine inches.

10. The two circles on the right have the same center point. The diameter of the smaller circle is seven meters, and $\overline{AB}$ is 10 meters long. Find the circumference of the larger circle. Round to the nearest meter.
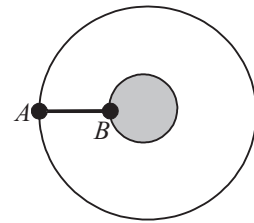
The circumference of the larger circle is about 85 meters.