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

Lesson Objectives

- Model and identify circle, radius, diameter, center, circumference, and chord.
- Draw, label, and determine relationships among the radius, diameter, center, and circumference (e.g. radius is half the diameter) of a circle.
- Model and develop the concept that *pi* is the ratio of the circumference to the diameter of any circle.

Subtopic 1   **Circles**

A circle is the set of points that are equidistant from a special point in the _____
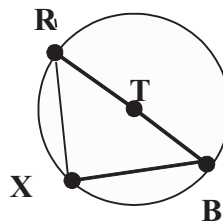
called the _____.

A radius is a line segment that connects the _____ of the circle to any point on the circle.

A _____ is a line segment that connects two points on a circle.

A diameter is a _____ _____ that connects two points on the circle and
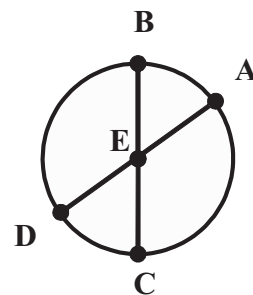
passes through the _____ of the circle.

The length of a _____ is twice the length of a radius.

1 Identify the radii, the diameter, and the chords shown in Circle *T*.

2 Identify the radii, the diameters, and the chords shown in circle *E*.

3 The diameter of a circle is 30 feet. Find the radius.

4 Tell whether each statement is always true, sometimes true, or never true.

- A radius is a chord.

- A diameter is a chord.

- A chord is a diameter.

Subtopic 2   **Circumference**

The _____ of a circle is the distance around the circle.

_____ is the ratio of the circumference of any circle to its _____.

Pi (π)

- _____ number
- Approximately _____ or $\dfrac{22}{7}$

5 The diameter of a bike wheel is 28 inches. What is the circumference? Round to the nearest inch.

6 The diameter of a manhole cover is $2\frac{1}{2}$ ft. What is the circumference?