Lesson 1.7: Circles

In this lesson you will:

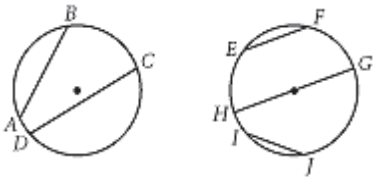
- learn the definition of circle
- write definitions for chord, diameter, and tangent
- learn about 3 types of arcs and how they are measured

*Add "circle" to your dictionary.

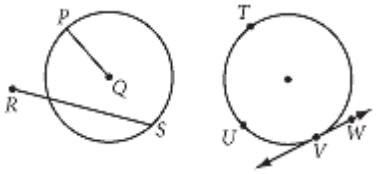
Investigation 1.7: "Defining Circle Terms"

A.) Write a good definition of each boldfaced term. Discuss your definitions with others in your group. Agree on a common set of definitions for your class and add them to your dictionary.

Chord

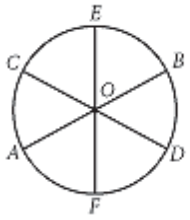


Chords:
$\overline{AB}$, $\overline{CD}$, $\overline{EF}$, $\overline{GH}$, and $\overline{IJ}$

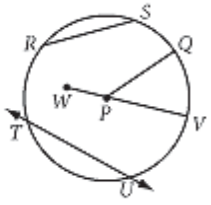


Not chords:
$\overline{PQ}$, $\overline{RS}$, $\overline{TU}$, and $\overline{VW}$

Diameter

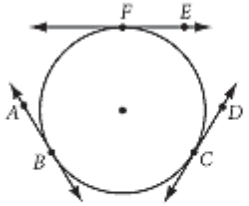


Diameters:
$\overline{AB}$, $\overline{CD}$, and $\overline{EF}$

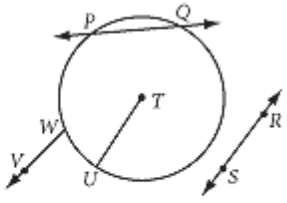


Not diameters:
$\overline{PQ}$, $\overline{RS}$, $\overline{TU}$, and $\overline{VW}$

Tangent



Tangents:
$\overline{AB}$, $\overline{CD}$, and $\overline{EF}$



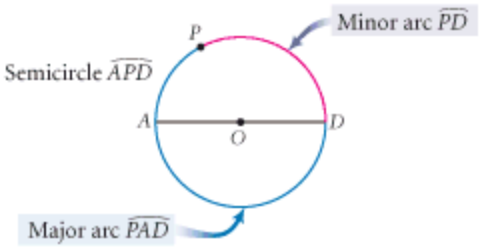
Not tangents:
$\overline{PQ}$, $\overline{RS}$, $\overline{TU}$, and $\overline{VW}$

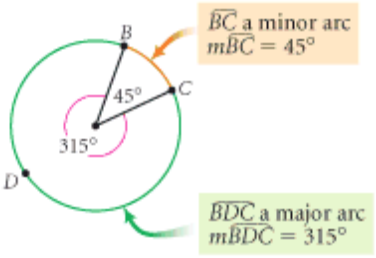
Note: You can say $\overleftrightarrow{AB}$ is a tangent, or you can say $\overrightarrow{AB}$ is tangent to circle O. The point where the tangent touches the circle is called the **point of tangency**.

B.) Can a chord of a circle also be a diameter of the circle? Can it be a tangent? Explain why or why not?

C.) Can two circles be tangent to the same line at the same point? Draw a sketch and explain.

*Add “concentric circles,” “arc,” “semicircle,” “major arc,” “minor arc,” and “central angle” to your dictionary.





⇒ASSIGNMENT: _____