

9.0 Circle Definitions and Arcs Homework Day 1  
Geometry 3313

Name Key  
Date \_\_\_\_\_ Period \_\_\_\_\_

Identify each of the following for circle P.

1. Name 3 chords.

$\overline{EF}, \overline{AB}, \overline{BD}$

2. Name 1 diameter.

$\overline{EC}$

3. Name 5 radii.

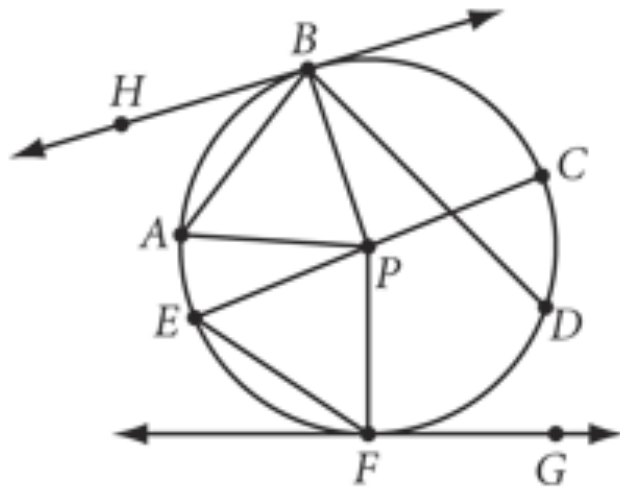
$\overline{PB}, \overline{PA}, \overline{PE}, \overline{PF}, \overline{PC}$

4. Name 1 inscribed angle.

$\angle ABD$

6. Name 2 points of tangencies.

$\bullet F, \bullet B$



5. Name 2 tangents.

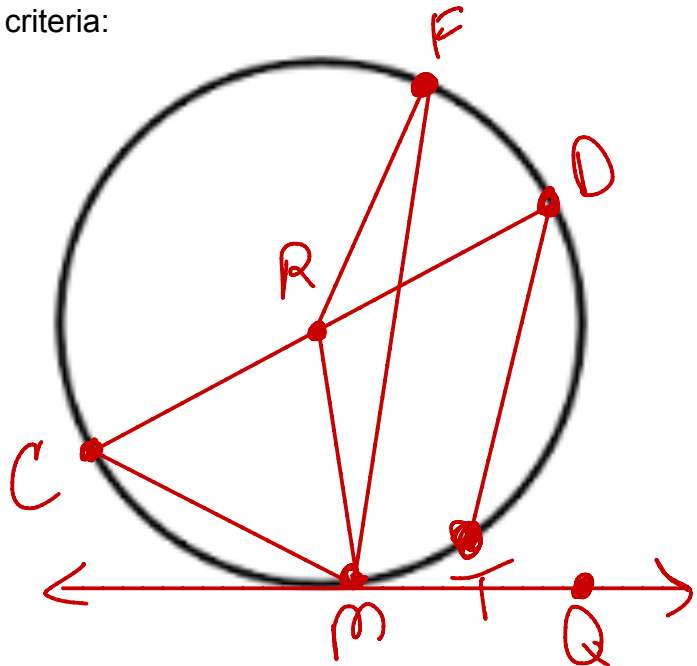
$\overline{HB}, \overline{FG}$

7. Name 2 central angles.

$\angle APB, \angle EPF$

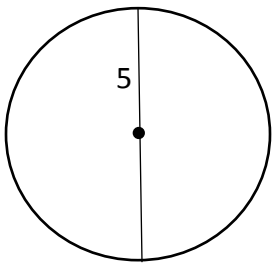
8. Draw and label a circle with the following criteria:

- Center is point R
- Diameter is  $\overline{CD}$
- Two radii  $\overline{RF}$  and  $\overline{RM}$
- Chords  $\overline{FM}$  and  $\overline{CM}$
- Inscribed angle  $\angle CDT$
- Tangent line  $\overline{MQ}$



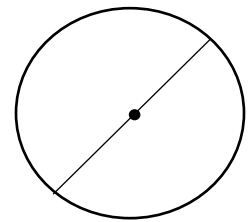
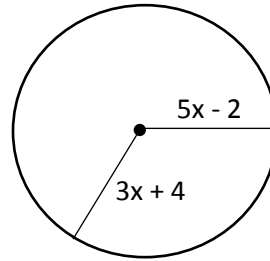
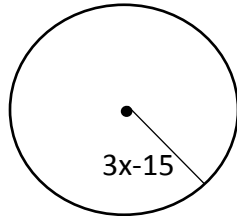
Determine if each of the following sets of circles are congruent. The circles may not be drawn to scale.

9. Diameter =  $2x - 4$



10.

Diameter =  $4x + 1$

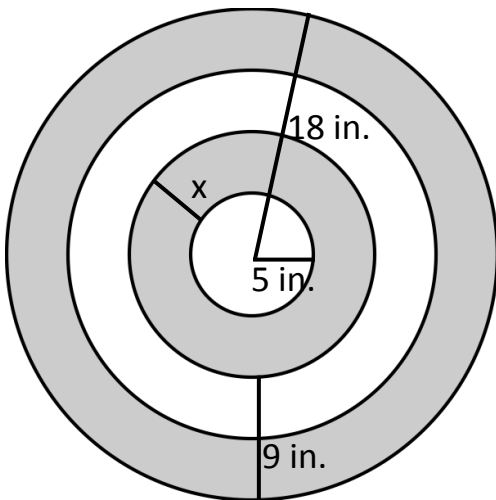


$$2x - 4 = 10 \quad r = 3(7) - 15$$

$$2x = 14 \quad r = 6$$

$x = 7$  Circles not  $\cong$

11. A dartboard is composed of concentric circles. Use the information provided to find the length of the inner grey ring of the dartboard.



$$x = 18 - 5 - 9$$

$$x = \boxed{4 \text{ in}}$$

12. Give 3 more examples of things in the real world which are composed of concentric circles.

Ripples in a pond, a CD, Rings in a tree