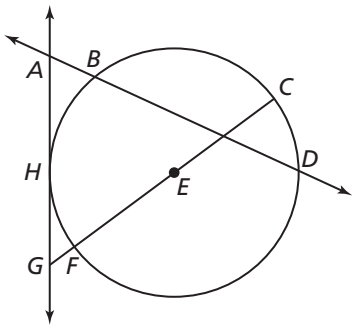
Name_____ Date _____

10.1 Practice B

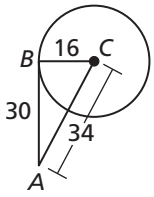
In Exercises 1–5, use the diagram.



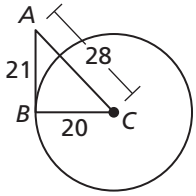
1. Name two radii.
2. Name two chords.
3. Name a diameter.
4. Name a secant.
5. Name a tangent and a point of tangency.

In Exercises 6 and 7, tell whether $\overline{AB}$ is tangent to $\odot C$. Explain your reasoning.

6.

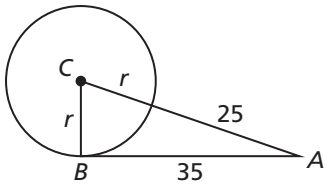


7.

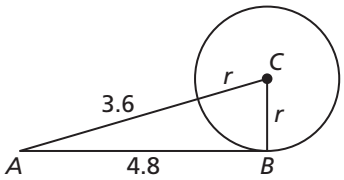


In Exercises 8 and 9, point B is a point of tangency. Find the radius r of $\odot C$.

8.

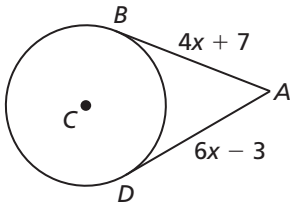


9.

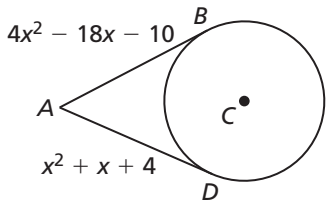


In Exercises 10 and 11, points B and D are points of tangency. Find the value(s) of x.

10.

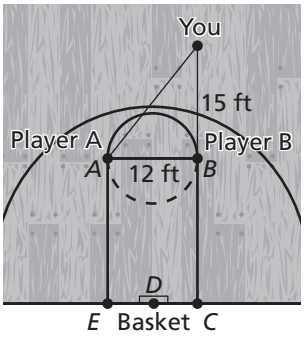


11.



12. When will two circles have no common tangents? Justify your answer.

13. During a basketball game, you want to pass the ball to either Player A or Player B. You estimate that Player B is about 15 feet from you, as shown.



   a. How far away from you is Player A?

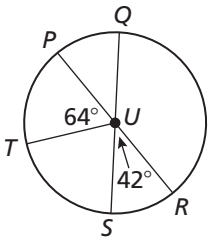
   b. How can you prove that Player A and Player B are the same distance from the basket?

Name _____ Date _____

10.2 Practice B

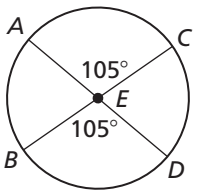
In Exercises 1–4, identify the given arc as a *major arc*, *minor arc*, or *semicircle*. Then find the measure of the arc of $\odot U$ if $\overline{SQ}$ and $\overline{PR}$ are diameters.

1. $\overset{\frown}{QRS}$
2. $\overset{\frown}{TS}$
3. $\overset{\frown}{TPS}$
4. $\overset{\frown}{PQ}$

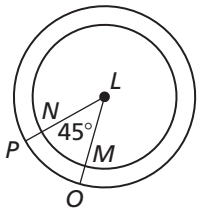


In Exercises 5–7, tell whether the given arcs are congruent. Explain why or why not.

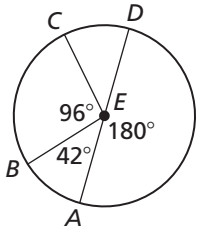
5. $\overset{\frown}{AC}$ and $\overset{\frown}{BD}$



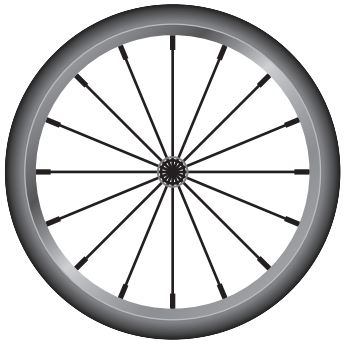
6. $\overset{\frown}{NM}$ and $\overset{\frown}{OP}$



7. $\overset{\frown}{AB}$ and $\overset{\frown}{CD}$

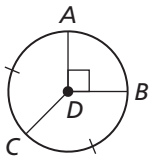


8. The spokes on a bicycle wheel divide the wheel into congruent sections. What is the measure of each arc in this circle?

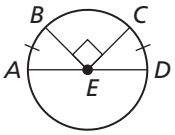


9. Find the measure of each arc.

   a. $\overset{\frown}{AC}$



   b. $\overset{\frown}{DAB}$



10. A water sprinkler covers the area shown in the figure. It moves through the covered area at a rate of about 5° per second.

    a. What is the measure of the arc covered by the sprinkler?

    b. When the sprinkler starts at the far left position, how long will it take for the sprinkler to reach the far right position?