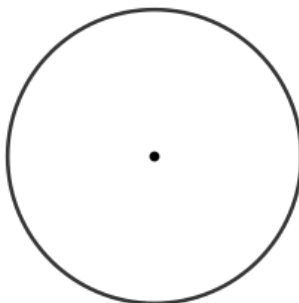


Investigating Tangent Lines Activity

- Label the center of the circle O .
- Use a straightedge to draw a line (not a line segment) that intersects the circle in only one point. Label the intersection point A .
- Draw the radius connecting point O to point A .



1. What seems to be true about the angle formed between the line and the radius OA ?
2. Use the 90° angle from the corner of a sheet of paper to test your theory. Is it true?
3. Compare your results with others in class. Make a conjecture about the relationship between a line that intersects a circle in only one point and the radius to that point.
4. Now, draw a different tangent line to the circle that intersects the first tangent line you drew. Label the point where the two lines intersect C and the point that touches the circle B . Use a ruler to measure the distance from C to A and from C to B in millimeters.

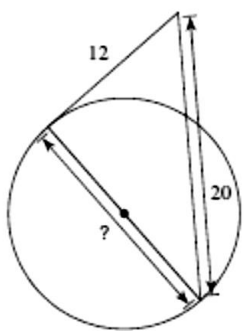
$CA =$ _____ $CB =$ _____

5. Compare your results with others in class. Make a conjecture about what you discover.

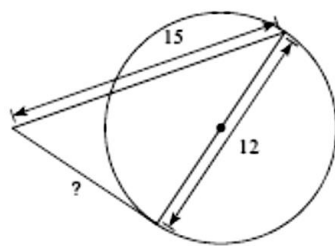
Day 8 Classwork:

Find the segment length indicated. Assume that lines which appear to be tangent are tangent.

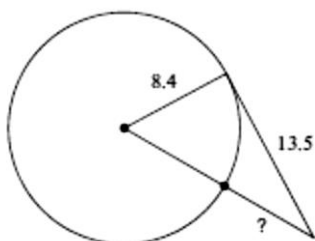
1)



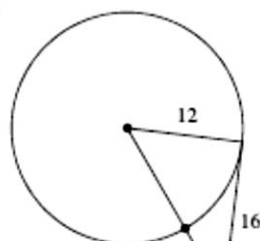
2)



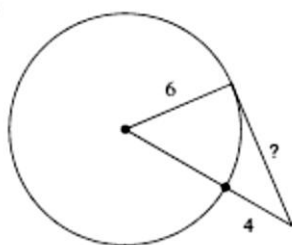
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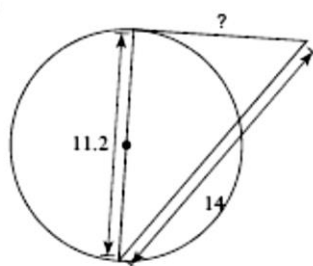
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5)

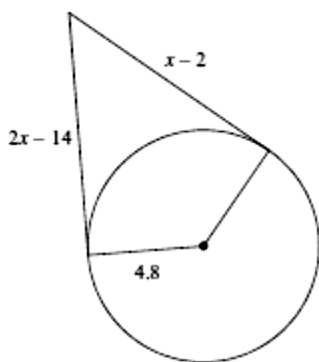


6)

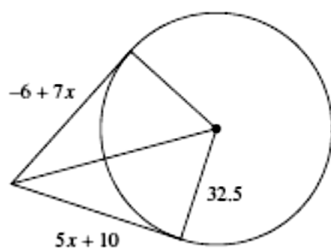


Solve for x . Assume that lines which appear to be tangent are tangent.

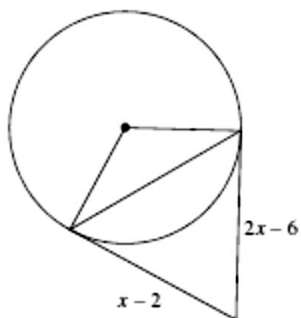
7)



8)



9)



10)

