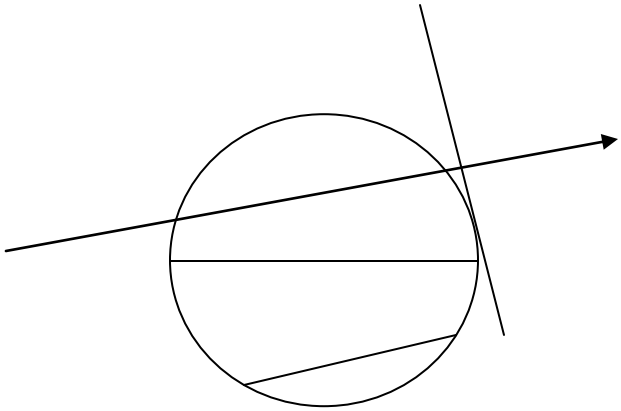
*20 questions *Calculators allowed *Show all work/steps- use separate paper *Recommend time frame 45min -60min

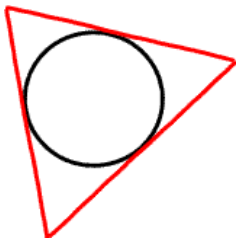
Provide complete explanations in your responses.

Introduction to Circles and Tangents

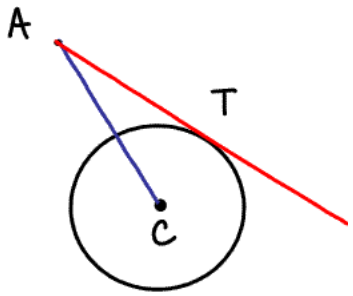
1. Name all the parts of the circle.



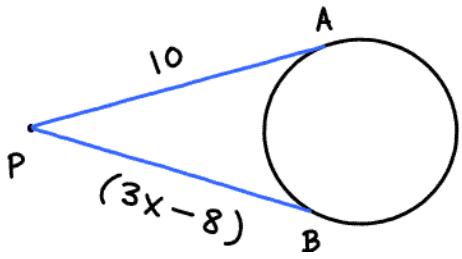
2. How many degrees is the angle formed by a tangent and radius at the point of tangency?
3. Half of the distance of the longest chord in a circle is called the _____.
4. This circle is _____ in the triangle.



5. AT is tangent to the circle at point T. Find the radius of the circle given AT = 7 and AC = 12.



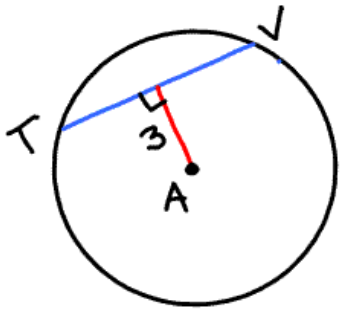
6. Both lines are tangent to the circle from the point P. Find the value of x.



Arcs and Chords

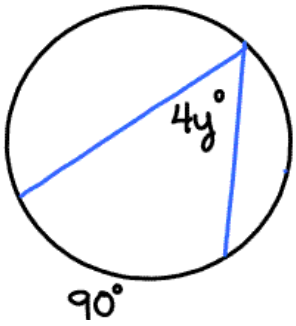
7. Circle (center O) has the points A and C that form an arc =78°. What is the measure of the central angle AOC?
8. What is the difference between a minor and major arc?
9. In a circle, congruent arcs have _____ chords.

10. The circle has a center at point A. Find AV given that TV = 10.

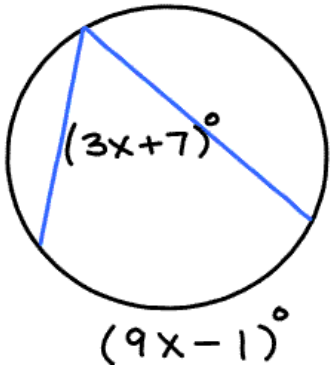


Inscribed Angles

11. Find the value of the variable.



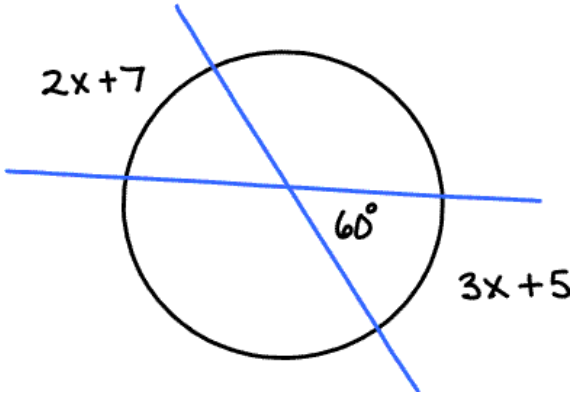
12. Find the value of the variable.



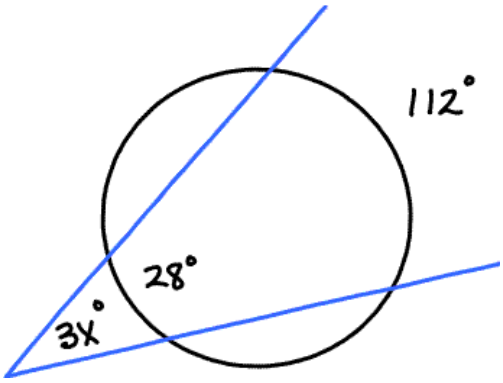
Other Angle Relationships in Circles

13. Identify the measure of the vertical angle in question 14.

14. Solve for the variable.

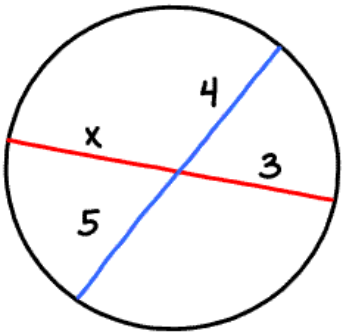


15. Solve for the variable

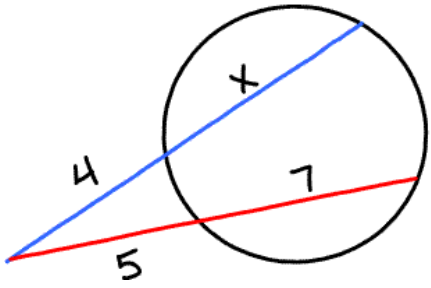


Segment Lengths and Circles

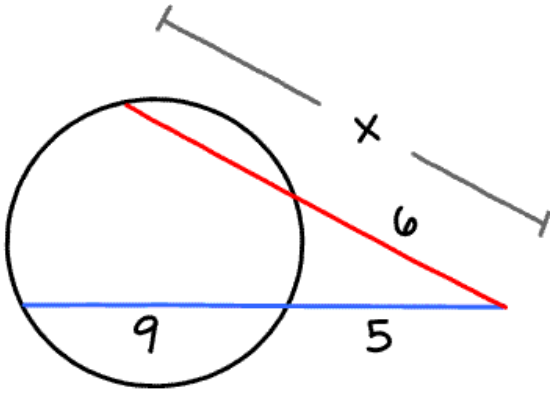
16. Find the value of x.



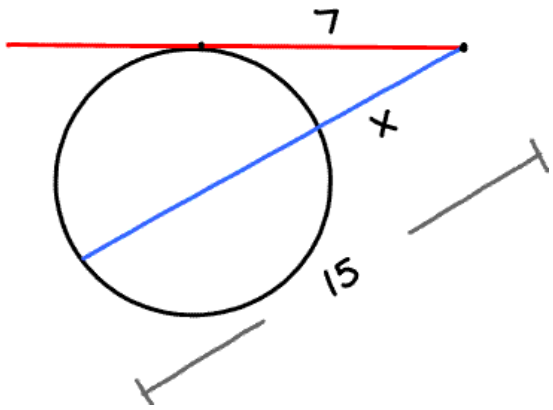
17. Find the value of x.



18. Find the value of x.



19. Find the value of x.



20. Find the value of x.