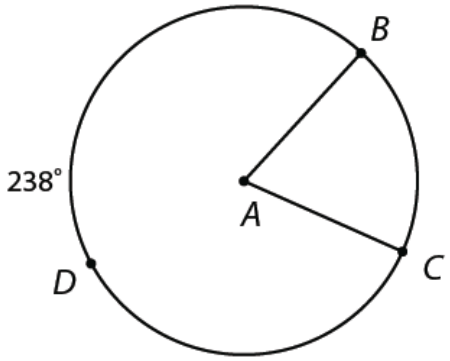
Name:_____ Pd:_____

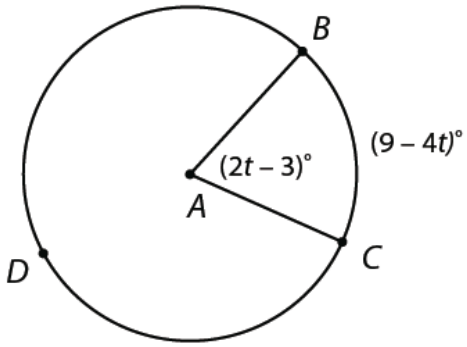
MATH 2 HONORS

HW: Introduction to Circles

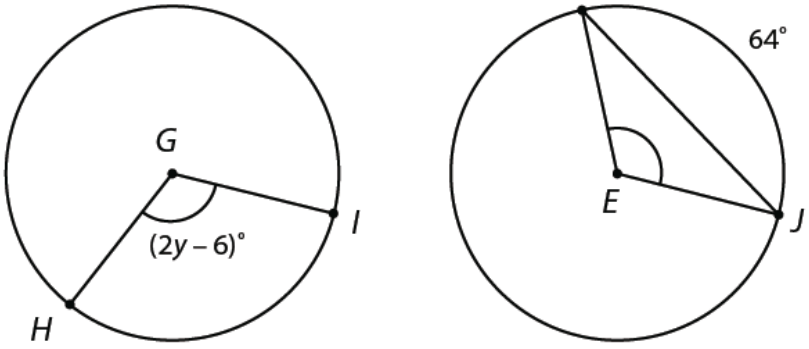
1. In $\odot A$, $\overset{\frown}{BDC} = 238$. What is $m\angle BAC$?



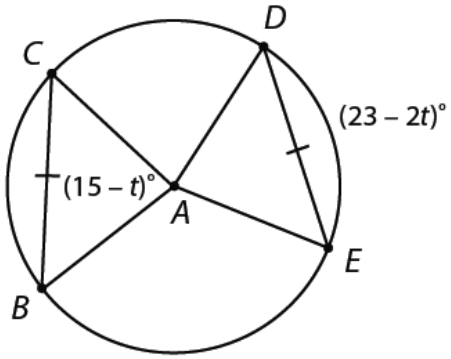
2. What is the value of t?



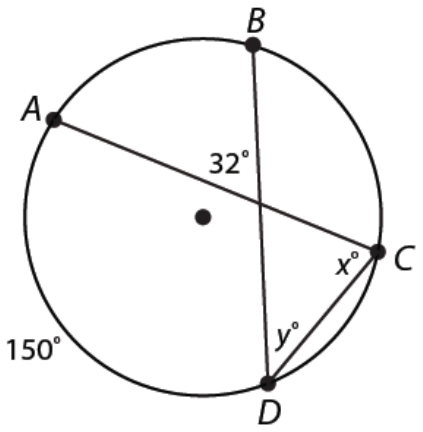
3. $\odot G \cong \odot E$. What is the value of y?



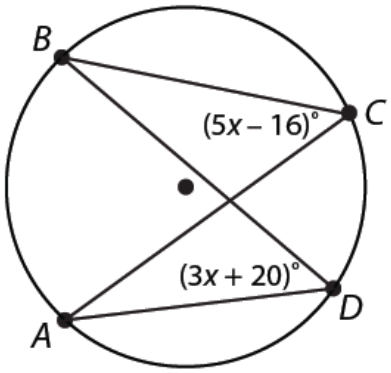
4. Find the value of t.



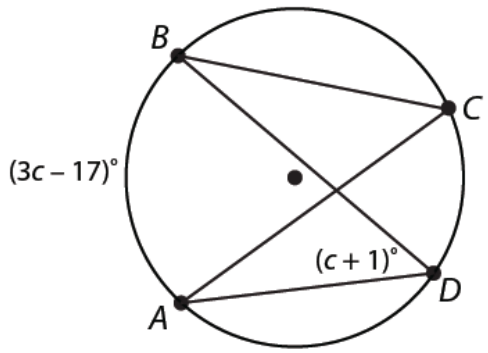
5. Find the values of x and y.



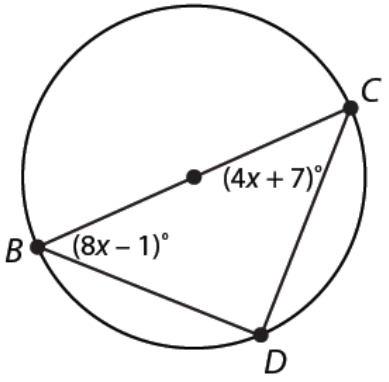
6. Find the value of x and the measure of $\overset{\frown}{AB}$.



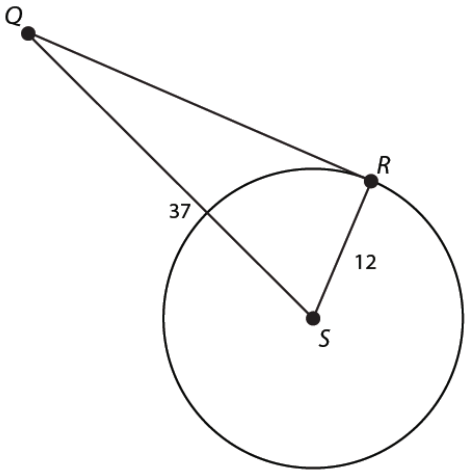
7. Find $m\angle C$ and $m\angle D$.



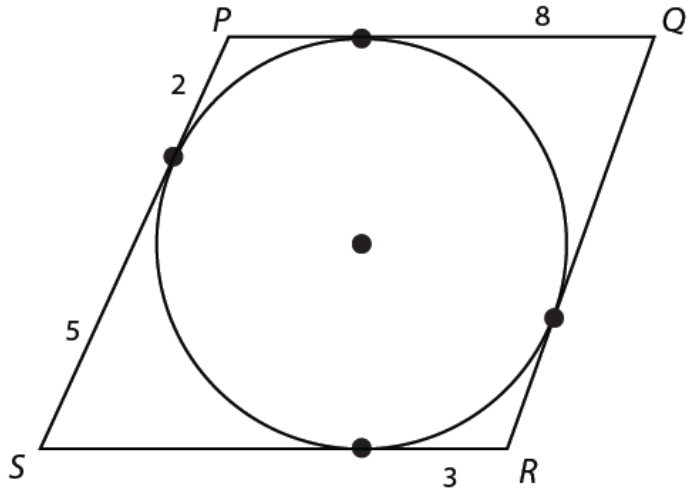
8. Find $m\angle B$ and $m\angle C$.



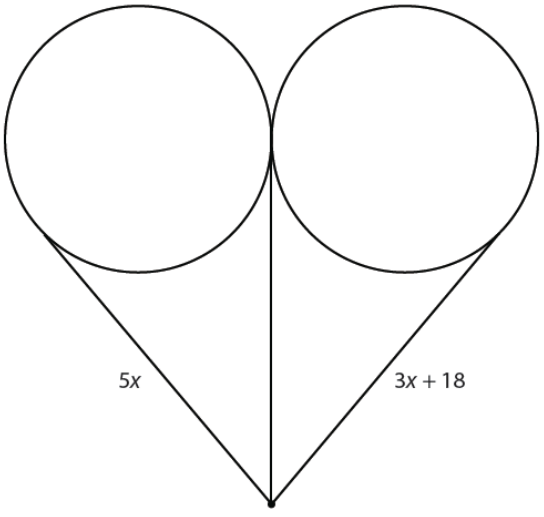
9. QR is tangent to circle S at point R. What is the length of QR?



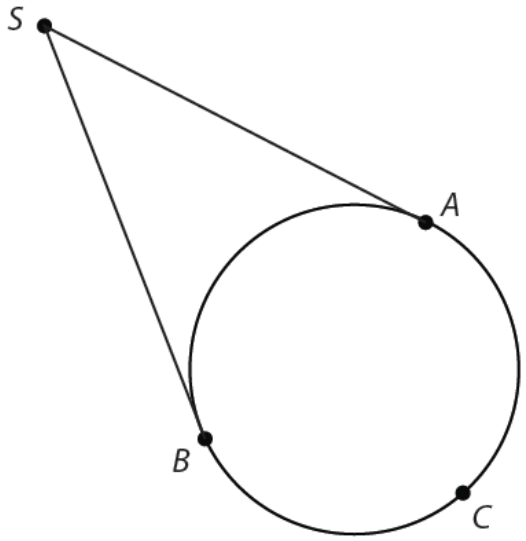
10. The sides of quadrilateral $PQRS$ are tangent to the circle at the points as pictured below. What is the length of $\overline{QR}$?



11. Pictured below is the logo for a new ice cream shop. The circles are congruent. If the diameter of each circle is 10 feet, will the logo fit on a billboard that is 60 feet tall? Explain.



12. A satellite (S) in orbit around the Earth is sending two signals that are tangent to Earth at points A and B. If $m\overset{\frown}{ACB}$ is 208° and $m\overset{\frown}{AB}$ is 152°, what is the measure of $\angle S$?



13. The weather satellite shown below covers the area between the signals. One signal hits the exterior of the coverage area in exactly one point. The other signal hits the exterior of the coverage area in exactly 2 points. Based on the information in the diagram, what is the angle measure formed by the two weather signals?