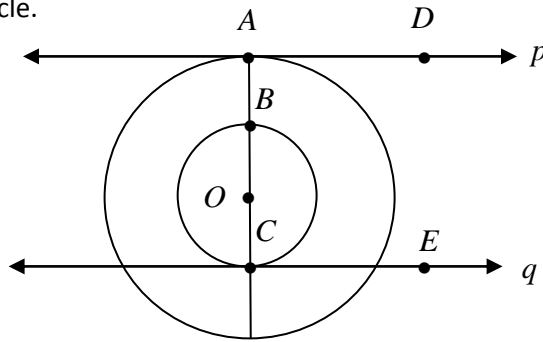


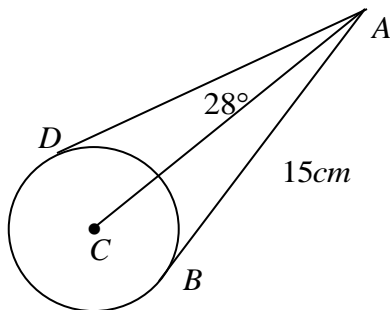
Tangent Lines Bell Work

Solve problems involving tangent of a circle.



Consider a pair of concentric circles with center O and complete each statement.

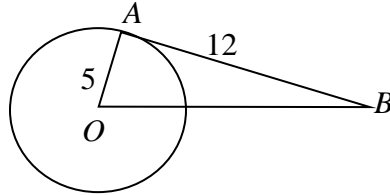
1. Suppose that p is tangent to the circle. Then $m\angle OAD =$ _____.
2. Suppose that $m\angle OCE = 90^\circ$. Then q is _____ to the circle at C.
3. Suppose that q is tangent to the circle at C and that $p \parallel q$. Then $m\angle CAD =$ _____.



AB and AD are tangent segments from A. Complete each statement.

4. $AD =$ _____
5. $m\angle BAC =$ _____

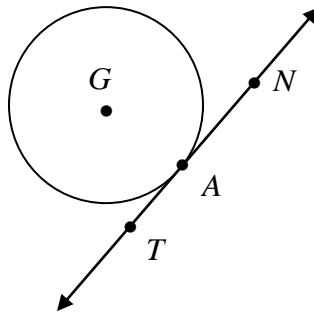
Tangent Lines Bell Work



AB is a tangent segment from B. Complete each statement.

6. $m\angle OAB =$ _____
7. If $AB = 12$ and $OA = 5$, then $OB =$ _____.

8. If $m\angle ABO = 25^\circ$, then $m\angle AOB =$ _____.



9. Tell whether TN is a tangent to $\odot G$ at A if $GA = 12$, $AN = 5$ and $GN = 13$.
10. Given that $GA = 4.3$, $AT = 3.2$ and $GT = 5$, tell whether TN is a tangent to $\odot G$ at A.