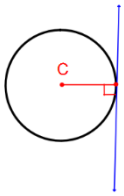
Geometry **Name:** _____

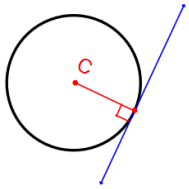
Guided Notes

Properties of Tangents **Date:** _____ **Period:** ____

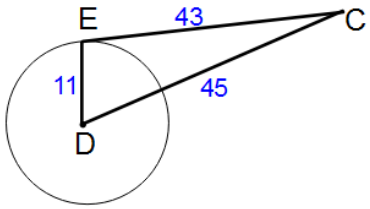
Theorem - If a line is tangent to a circle, then it is perpendicular to the radius drawn to the point of tangency.

Theorem - In a plane, if a line is perpendicular to a radius of a circle at its endpoint on the circle, then the line is tangent to the circle.

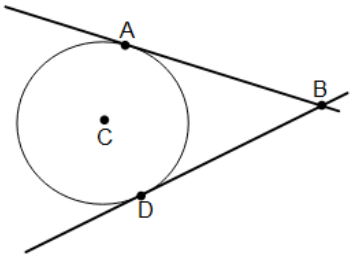




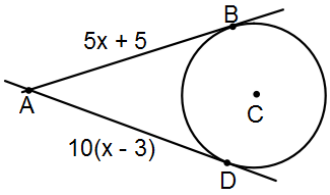
Example #1: Is CE tangent to ʘD? Explain why?



Theorem -If two segments from the same exterior point are tangent to a circle, then they are congruent.

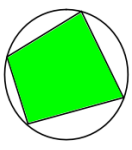


Example #2: $\overline{AB}$ and $\overline{AD}$ are tangent to ʘC. Find the value of x.

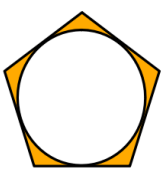


A circle is _____ in a polygon if each side of the polygon is tangent to the circle.

A circle is _____ about a polygon if each vertex of the polygon lies on the circle.



circumscribed



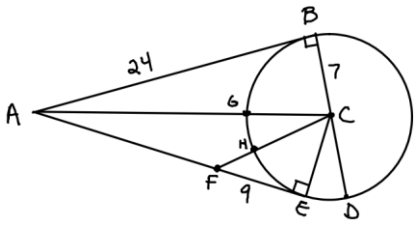
inscribed

Geometry
Guided Notes
Properties of Tangents

Name: _____

Date: _____ **Period:** ____

Example #3: Find the length of each segment.



Example #4: Find the length of each segment.