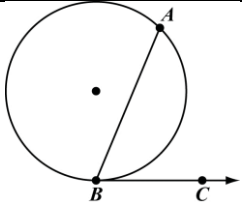# Day 3 – Secant and Tangent Angles (Vertex On, Inside & Outside)
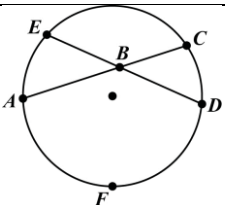
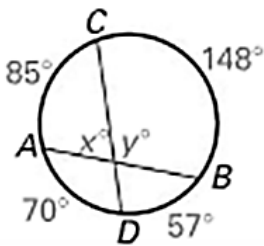| Name	Theorem	Hypothesis	Conclusion
Tangent Chord Theorem **(Vertex ON)**	If a tangent and a chord intersect at a point on the circle, then the measure of each angle formed is one half the measure of its intercepted arc.		

Example: Find the measure of angle 1.
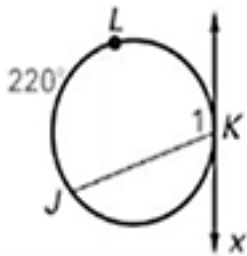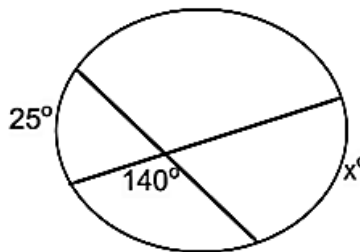

Example: Find the measure of arc EFG.

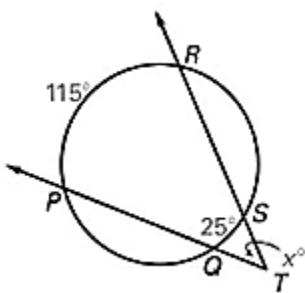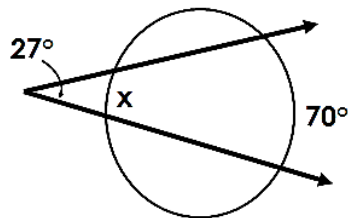| Name	Theorem	Hypothesis	Conclusion
Interior Angles of a Circle Theorem **(Vertex INSIDE)**	If two chords intersect **inside** the circle, then the measure of each angle is half the sum of the measures of the arcs intercepted by the angle and its vertical angle.		

Example: Find x and y.

Example: Find the value of x.

Name	Theorem	Hypothesis	Conclusion
Exterior Angles of a Circle Theorem (Vertex OUTSIDE)	If a tangent and a secant, two tangents, or two secants intersect **outside** the circle, then the measure of the angle formed is half the difference of the measures of the intercepted arcs.		

Example: Find the value of x.   **Example:** Find the value of x.

Example: Find the value of x.