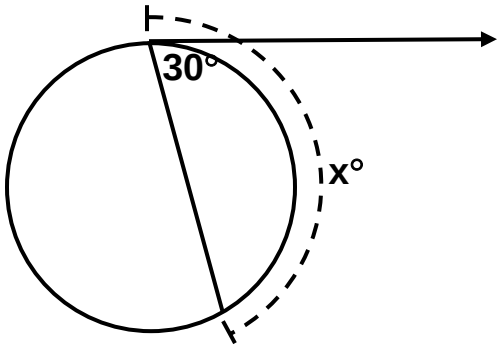
TOPIC 14-2: ANGLES FORMED BY SECANTS AND TANGENTS

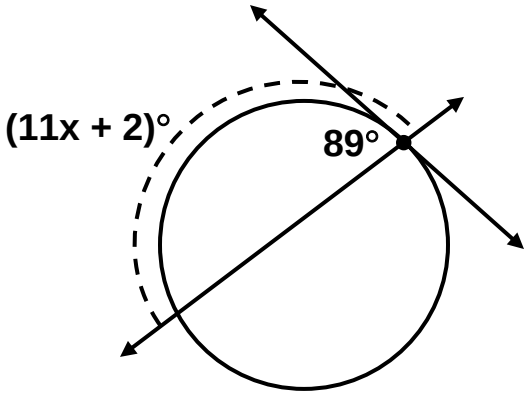
THEOREM:	If a secant and a tangent intersect at the point of tangency, then the measure of each angle formed is half the measure of the intercepted arc.

EXAMPLE 1: Find the value of ‘x’.



x = _____

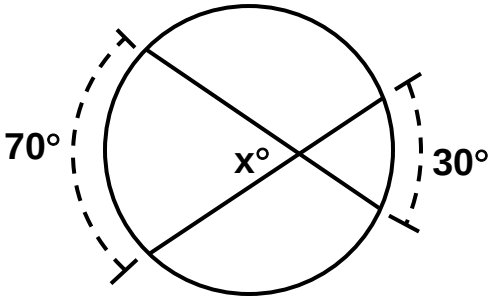
EXAMPLE 2: Find the value of ‘x’.



x = _____

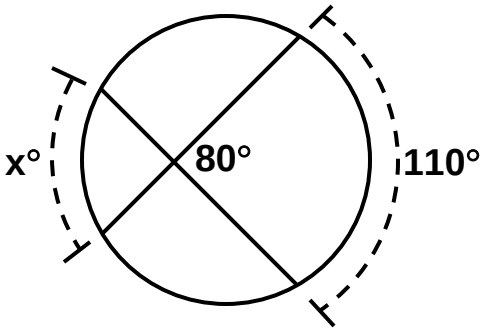
THEOREM:	If two secants intersect in the interior of a circle, then the measure of the angle formed is half the sum of the measures of the arcs intercepted by the angle and its vertical angle.

EXAMPLE 3: Find the value of ‘x’.



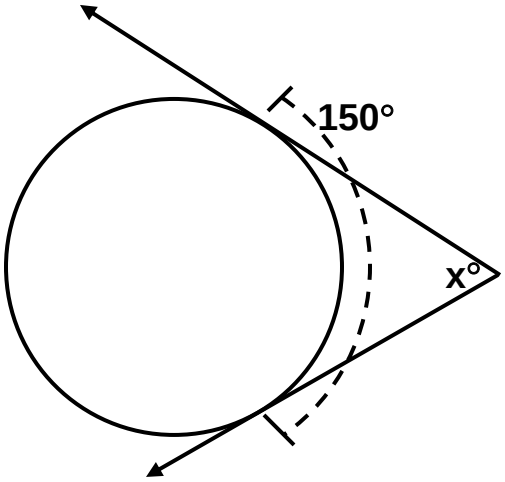
x = _____

EXAMPLE 4: Find the value of ‘x’.



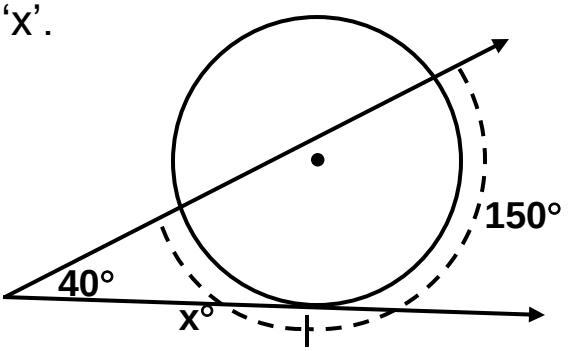
THEOREM:	If two secants, a secant and a tangent, or two tangents intersect in the exterior of a circle, then the measure of the angle formed is half the positive difference of the measures of the intercepted arcs.

EXAMPLE 5: Find the value of ‘x’.



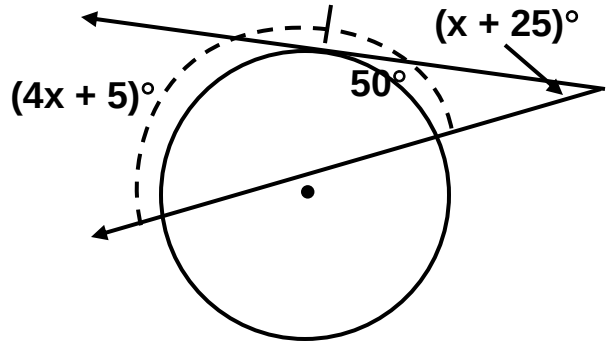
x = _____

EXAMPLE 6: Find the value of ‘x’.



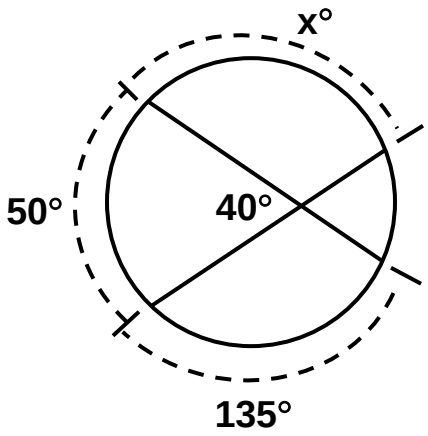
x = _____

EXAMPLE 7: Find the value of 'x'.



x = _____

EXAMPLE 8: Find the value of 'x'.



x = _____