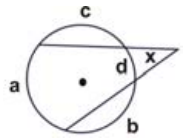
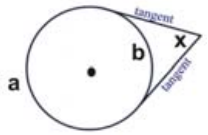
Name _____ Date _____

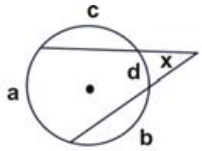
Quiz: Angles in Circles - Angles Outside the Circle

1 

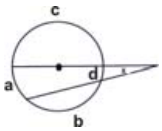
Given two secants, a=5t, d=2t, c=t, b=t, find x.

2 

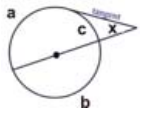
Given two tangents, a=232°, find x.

3 

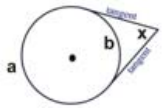
Given two secants, a=158°, x=23°, find x.

4 

Given two secants with one going through the centre of the circle, a=28°, d=15°, find x.

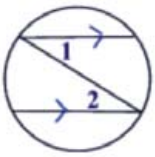
5 

Given a tangent and a secant, c=82°, x=26°, find a

6 

Given two tangents, a=275°, b=123°, find x.

7 From point L outside of a circle, two secants LNP,LMO are drawn. Angle L contains 42°, and minor arc MN contains 64°. Find the number of degrees in minor arc OP.

8 

Is $\angle 1$ always equal to $\angle 2$. State true or false.

9 Point *P* lies outside circle *C*, with diameter LO. The angle formed by tangent LM and secant MNO measures 42°. Find the measure of minor arc ON.

10 A wheel is being illuminated by a spotlight. The light beam strikes the wheel tangent at the points *P* and *R*. A light beam also goes through the center of the wheel, *O*. The mPQR:mPSR=5:3, *RT* = 8 meters, and *ST* = 3 meters. Find the measure of the angle between the light beams PT and RT. Also find the diameter of the wheel.

Circle # Correct	0	1	2	3	4	5	6	7	8	9	10
Percentage Score	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%