

## Tangent Property #1

- 1.) Construct a circle and label its center O.
- 2.) Using your straightedge, draw a line which appears to touch the circle at only one point. Label the point T (for "point of tangency"). Connect T to O.
- 3.) Use your protractor to measure the angles at T.
- 4.) Draw another circle of a different size. Repeat. What seems to be true?

**A tangent to a circle is \_\_\_\_\_ to the radius drawn to the point of tangency.**

## Tangent Property #2

- 1.) Construct a circle and label its center O.
- 2.) Choose a point outside the circle and label it P.
- 3.) Draw two lines through P, each of which being tangent to the circle. Mark the points of tangency as A and B.
- 4.) Measure to find the values of  $\overline{PA}$  and  $\overline{PB}$ . What do you notice?
- 5.) Try it again. What seems to be true?

**Tangent segments to a circle from a point outside the circle are \_\_\_\_\_ .**