Math 9   *Name:* _____

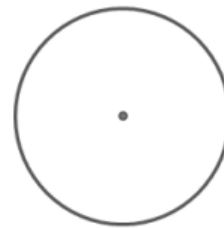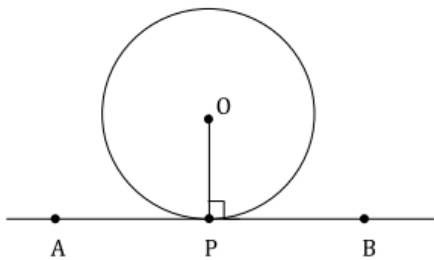## 9.3 – Properties of Tangents to Circles   *Date:* _____

TANGENT   : _____.
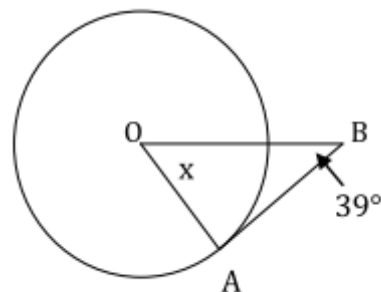
POINT of   : _____.
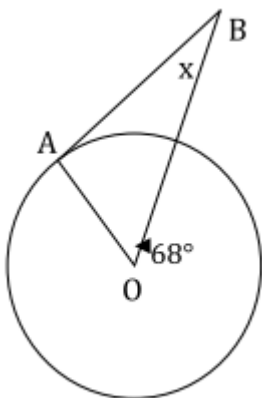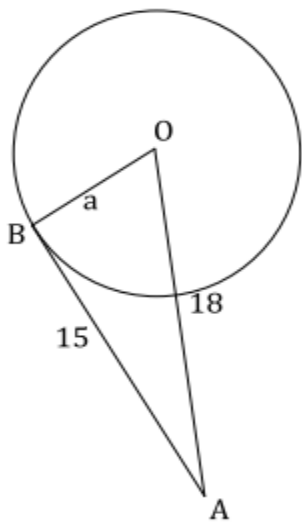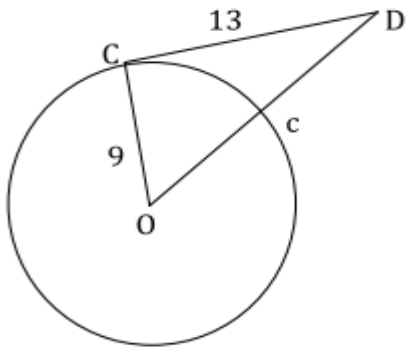***TANGENCY***
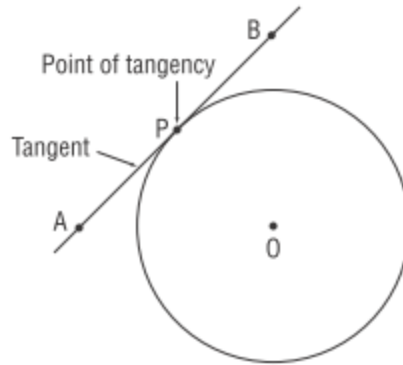
Tangent-Radius Property

A ***TANGENT*** to a Circle is always at _____ to the _____ of the Circle at the _____.

Ex. 1: Determine the value of angle x in each of the figures given below:

Ex. 2: Determine the length of each indicated side, below. Give reasons for your assumptions.

Ex. 3: (*Review*) A water pipe has a diameter of $30\,cm$. The water level in the pipe is below the center of the pipe. The surface of the water has a cross-sectional length of $9\,cm$. Determine the maximum depth of the water correct to one tenth of a centimeter.