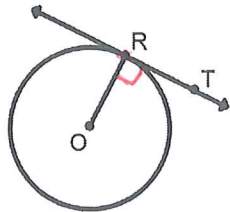
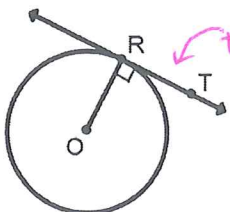
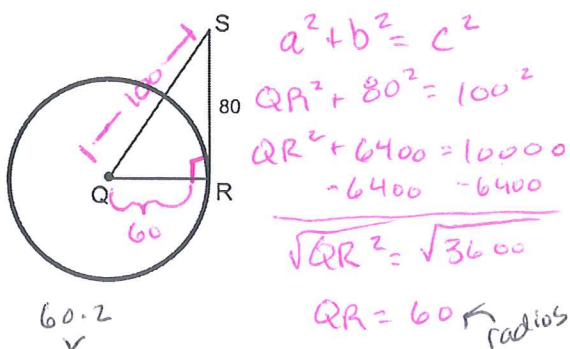


# Geometry - 10.5 - Tangents

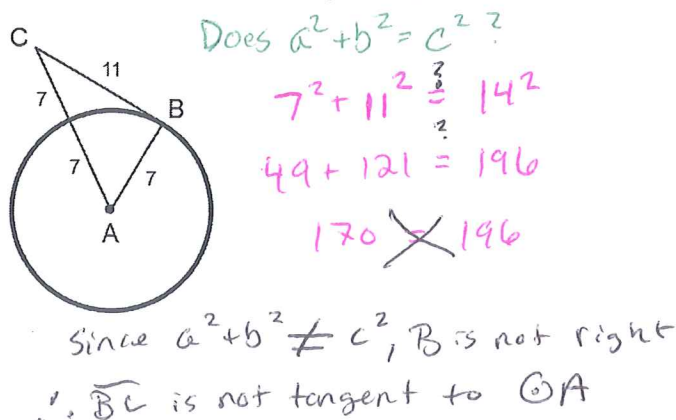
Theorem 10.9	Theorem 10.10 (Converse of Thm 10.9)
 <p style="text-align: center; color: red; font-weight: bold;">RT is tangent <math>\rightarrow</math> <math>\overline{OR} \perp \overline{RT}</math></p>	 <p style="text-align: center; color: red; font-weight: bold;"><math>\overline{OR} \perp \overline{RT} \rightarrow \overline{RT}</math> is a Tangent</p>

**Ex 1** - If  $\overline{RS}$  is tangent to circle Q at R and  $QS = 100$ , find the diameter of circle Q.

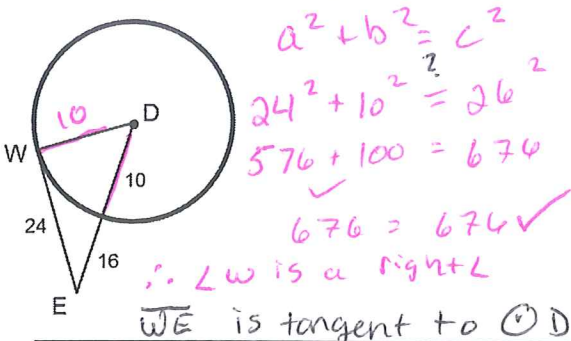


diameter = 120

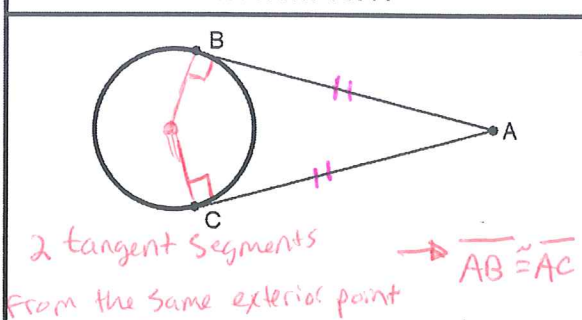
**Ex 2** - Determine if  $\overline{BC}$  is tangent to  $\odot A$ .



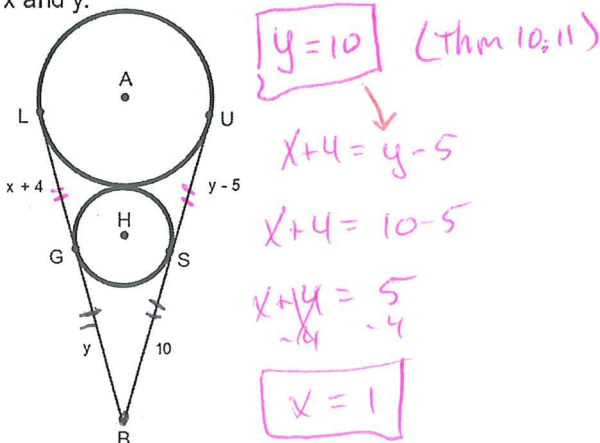
**Ex 3** - Is  $\overline{WE}$  tangent to circle D?



Theorem 10.11



**Ex 4** - Assuming the segments are tangent to both circles and the circles are tangent to each other, find x and y.



**Ex 5** -  $\triangle SIB$  is circumscribed about  $\odot G$ . Find the perimeter of  $\triangle SIB$  if  $NI = OB + 9$ .

