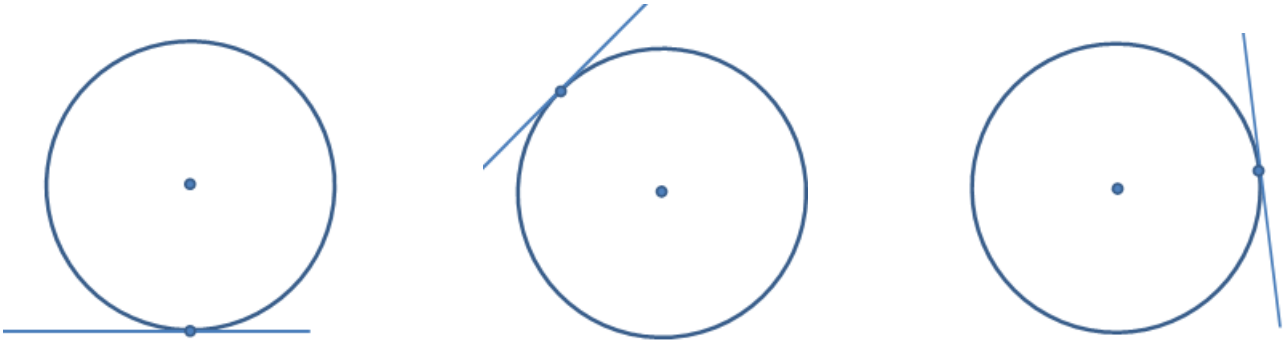
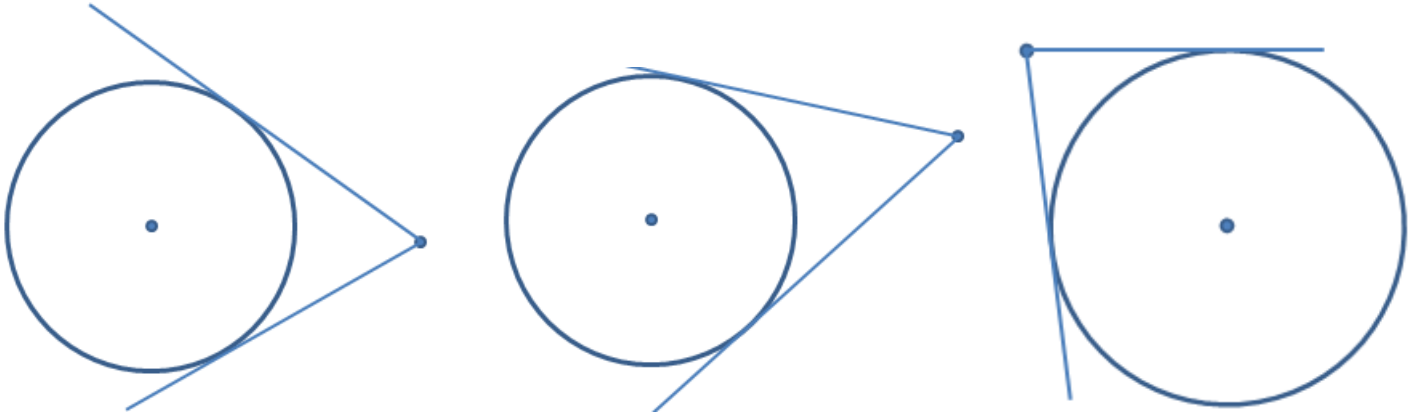
Name:_____ Date:_____

HW Section 8.1 Tangents and Circles:

1. Draw a radius from the centre of the circle to each tangent point. Use a protractor to measure the angle between the radius and the tangent line. What is the measure of this tangent line?

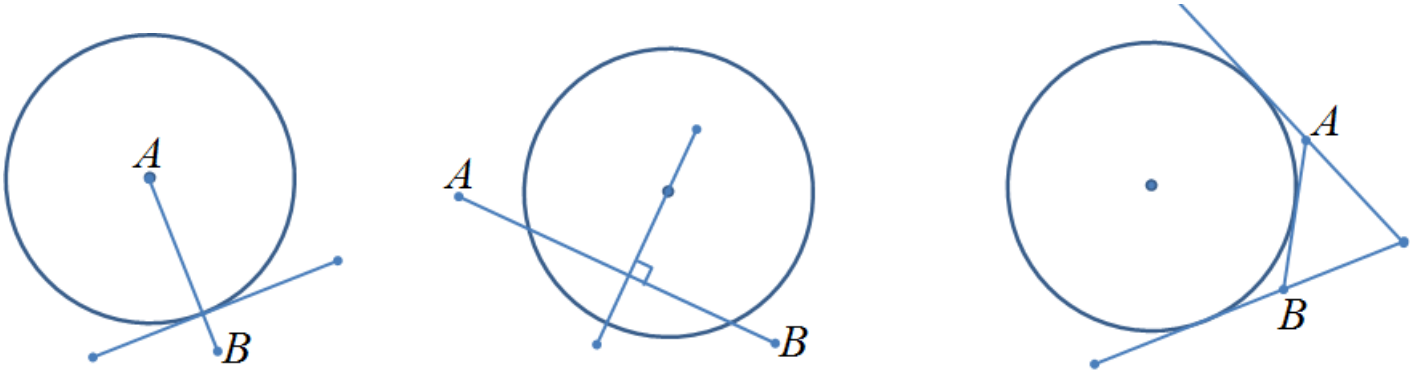


2. Given each circle and exterior point, measure the distance from the exterior point to both tangent points. Compare the lengths of the tangent lines. Do they have the same length or different lengths?



3. What are the conditions required for a line to be a tangent line?

4. Given each line AB below, indicate whether if it is a tangent line or not. If not, state the reason:



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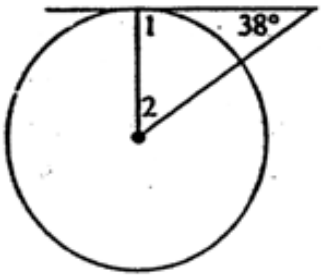
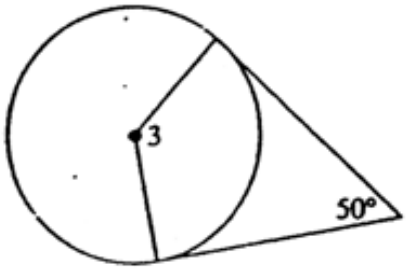
5. Given each circle, find values of the missing angles

a) $\angle 1 =$ _____ $\angle 2 =$ _____

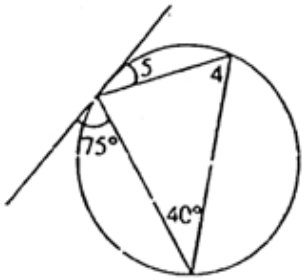


b) $\angle 3 =$ _____

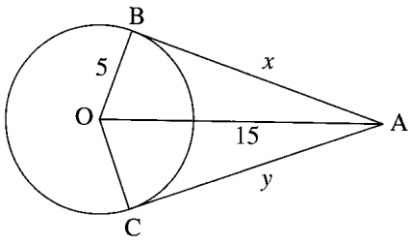


c) Challenge:

$\angle 4 =$ _____ $\angle 5 =$ _____

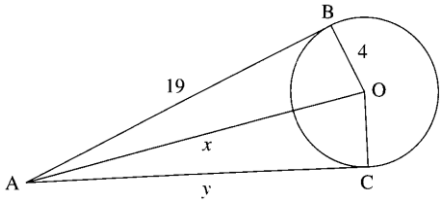


a)



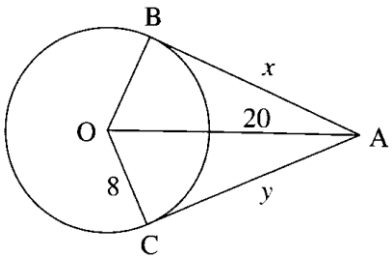
x=_____ y=_____

b)



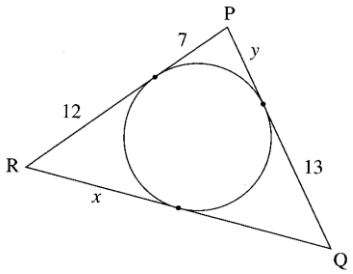
x=_____ y=_____

c)



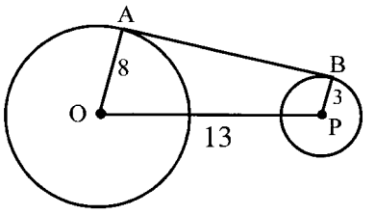
x=_____ y=_____

d)



x=_____ y=_____

e)

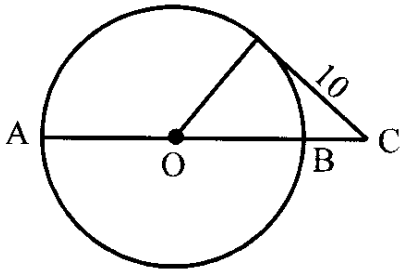


AB =

x=_____ y=_____

f)

AC = 20 BC = _____



BC=_____

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