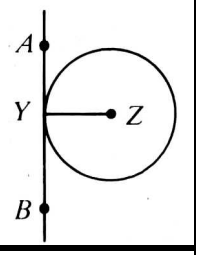
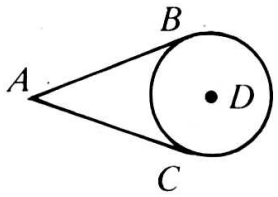
Name: _____ Date: _____ Row: _____ Period: _____

NOTES SECTION 9.2: TANGENTS

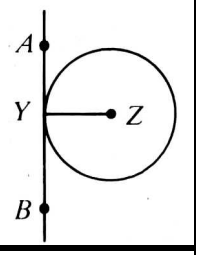
THEOREM



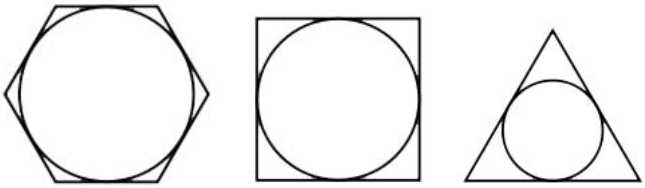
COROLLARY



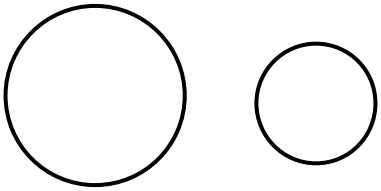
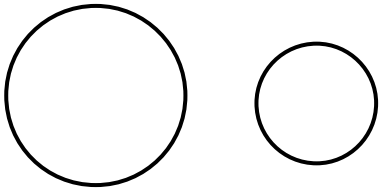
THEOREM



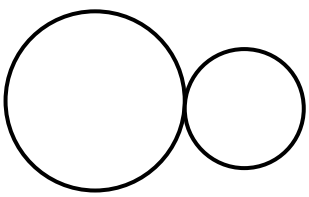
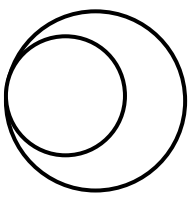
CIRCUMSCRIBED POLYGONS & INSCRIBED CIRCLES



COMMON TANGENT

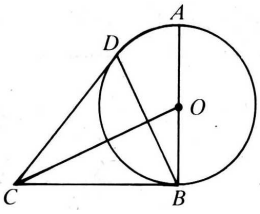
COMMON INTERNAL TANGENT	**COMMON EXTERNAL TANGENT**
	

TANGENT CIRCLES

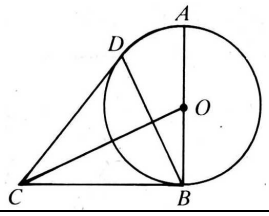
EXTERNALLY TANGENT CIRCLES	**INTERNALLY TANGENT CIRCLES**
	

1-8: $\overleftrightarrow{CB}$ and $\overleftrightarrow{CD}$ are tangent to circle *O* at *B* and *D*, respectively. Complete.

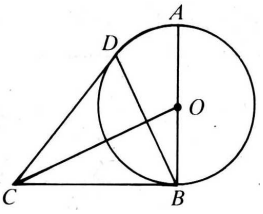
1) If $OC = 15$ and $OB = 9$, then $BC =$ _____.



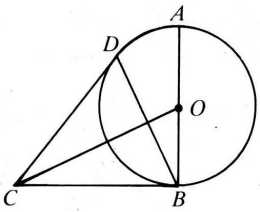
2) If $OC = 3\sqrt{6}$ and $BC = 6$, then $OB =$ _____.



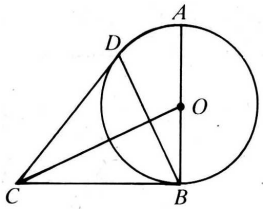
3) If $AB = 12$ and $BC = 8$, then $OC =$ _____.



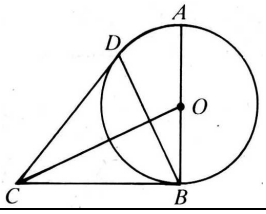
4) If $OC = 2\sqrt{17}$ and $BC = 5\sqrt{2}$, then $AB =$ _____.



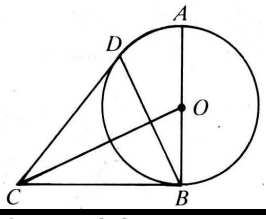
5) If $m(\angle OCB) = 30$ and $OB = 4$, then $OC =$ _____.



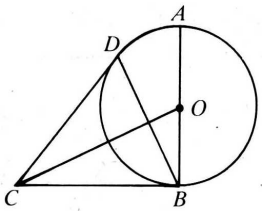
6) If $m(\angle COB) = 60$ and $CB = 6\sqrt{3}$, then $AB =$ _____.



7) If $m(\angle BCD) = 70$, then $m(\angle CBD) = m(\angle$_____$) =$ _____.

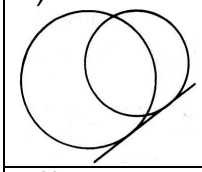


8) If $m(\angle BCD) = 50$, then $m(\angle DBO) =$ _____.

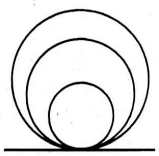


9-14: (a) Tell whether the circles are externally tangent, internally tangent, or not tangent.
(b) Tell whether the line is a common external tangent, a common internal tangent, or neither.

9)



10)



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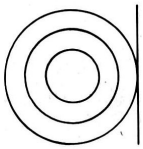
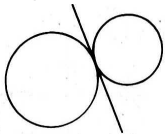
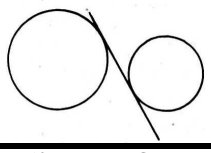


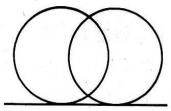
12)



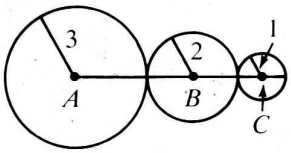
13)



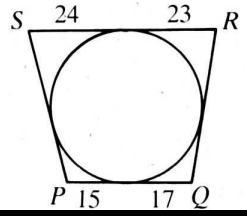
14)



15) Find *AC*



16) Find *SP* and *RQ*



17) Find *PT* and *QS*