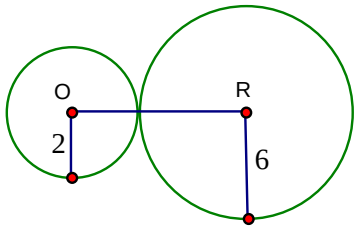
Chapter 8: Circles
Lesson 8-3: Tangents
Homework

Name_____
Date _____
Period ___

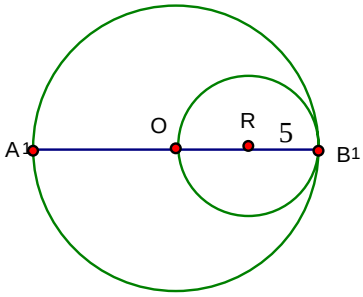
For questions 1 - 3, O and R are centers of circles. Find the indicated value.

1.



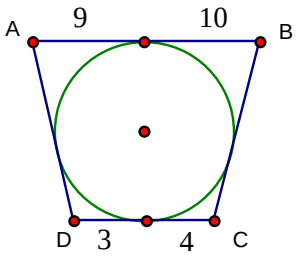
OR = _____

2.



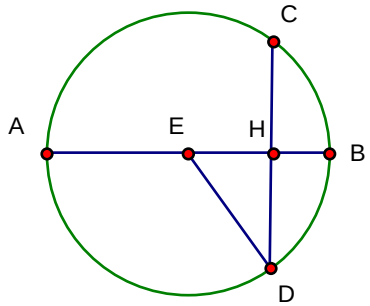
AB = _____

3.



AD = _____ BC = _____

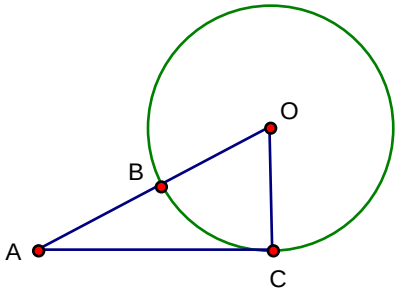
Refer to the accompanying figure for questions 4 - 6. Find the indicated values.



4. If $\overline{HD} = 12$ and $\overline{EH} = 9$, $\overline{DE}$ = _____.

5. If $\overline{DE} = 17$ and $\overline{BH} = 9$, $\overline{CD}$ = _____.

Refer to the accompanying figure for questions 7 - 10. * is tangent to circle O.



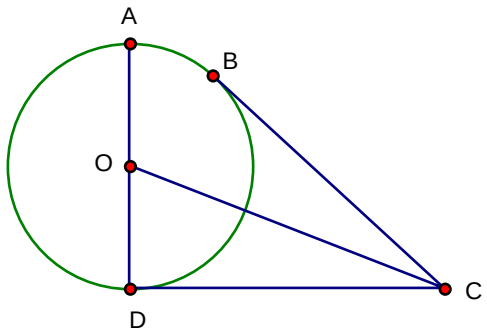
6. If $\overline{AC} = 4$ and $\overline{OC} = 3$, then $\overline{AO}$ = _____.

7. If $\overline{OC} = 15$ and $\overline{AC} = 20$, then $\overline{AO}$ = _____.

8. If $m\angle OAC = 30°$ and $\overline{AO} = 10$, then $\overline{OC}$ = _____.

9. If $m\angle OAC = 60°$ and OC = $4\sqrt{3}$, then $\overline{AC}$ = _____.

$\overline{CD}$ and $\overline{BC}$ are tangent to circle O. Refer to the accompanying figure and find the indicated values.



10. If $\overline{OC} = 20$ and $\overline{OD} = 12$, then $\overline{BC}$ = _____.

11. If $\overline{OC} = 4\sqrt{2}$ and $\overline{CD} = 4$, then $\overline{OD}$ = _____.

12. If $\overline{AD} = 10$ and $\overline{CD} = 12$, then $\overline{OC}$ = _____.

13. If $\overline{OC} = 5\sqrt{3}$ and CD = $5\sqrt{2}$, then $\overline{AD}$ = _____.

14. If $m\angle OCD = 30°$ and $\overline{OD} = 6$, then $\overline{OC}$ = _____ and $\overline{CD}$ = _____.

15. If $m\angle COD = 60°$ and $\overline{CD} = 4\sqrt{3}$, then $\overline{OC}$ = _____ and $\overline{AD}$ = _____.