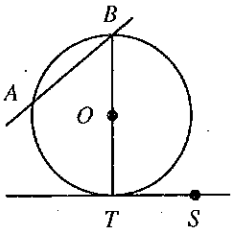
NAME _____ DATE _____ SCORE _____

Basic Terms; Tangents

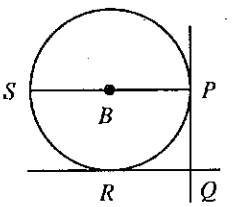
For use after Section 9–2

Exercises 1–6 refer to $\odot O$. Name each of the following.



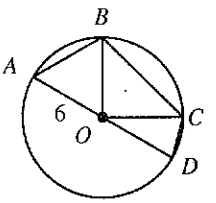
1. Two radii _____
2. A diameter _____
3. A secant _____
4. A tangent _____
5. Two chords _____
6. A point of tangency _____

Exercises 7–11 refer to $\odot B$ with radius BP. Complete.



7. If $BP = 4$, then $SP =$ _____.
8. If $SP = 16n$, then $BP =$ _____.
9. If $\overleftrightarrow{PQ}$ is tangent to $\odot B$, then $m\angle BPQ =$ _____.
10. If $\overleftrightarrow{PQ}$ and $\overleftrightarrow{RQ}$ are tangent to $\odot B$, then _____ $\cong$ _____.
11. If $\overleftrightarrow{RQ}$ is tangent to $\odot B$, then $\overline{BR}$ would be _____ to $\overleftrightarrow{RQ}$.

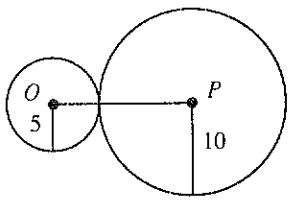
Exercises 12–14 refer to $\odot O$.



12. If $m\angle AOB = 60$, then $AB =$ _____.
13. If $m\angle BOC = 90$, then $BC =$ _____.
14. Name an inscribed polygon in the figure. _____

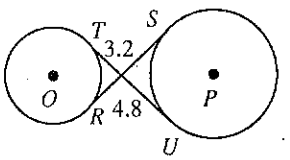
In Exercises 15–17, O and P are the centers of the circles. In Exercise 16, $\overleftrightarrow{RS}$ and $\overleftrightarrow{TU}$ are tangent to both circles and $\overleftrightarrow{RS}$ divides $\overline{TU}$ into segments whose lengths are shown.

15.



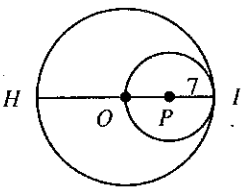
$OP =$ _____

16.



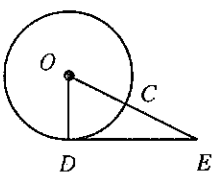
$RS =$ _____

17.



$HI =$ _____

In the diagram for Exercises 18–20, $\overline{ED}$ is tangent to $\odot O$.



Exs. 18–20

18. If $DE = 12$ and $DO = 9$, then $OE =$ _____.
19. If $m\angle DOE = 60$ and $OD = 9$, then $OE =$ _____.
20. If $DO = 5$ and $CE = 8$, then $DE =$ _____.