

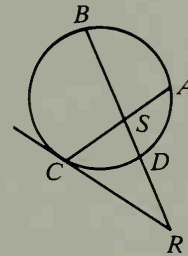
Cumulative Review: Chapters 1–10

Write *always*, *sometimes*, or *never* to complete each statement.

- A**
1. A quadrilateral ? has four obtuse angles.
 2. Two isosceles right triangles with congruent hypotenuses are ? congruent.
 3. If \widehat{AC} on $\odot O$ and \widehat{BD} on $\odot P$ have the same measure, then \widehat{AC} is ? congruent to \widehat{BD} .
 4. If two consecutive sides of a parallelogram are perpendicular, then the diagonals are ? perpendicular.
 5. If the lengths of the sides of two triangles are in proportion, then the corresponding angles are ? congruent.
 6. The tangent of an angle is ? greater than 1.
 7. A triangle with sides of length $2x$, $3x$, and $4x$, with $x > 0$, is ? acute.
 8. Given a plane containing points A and B , the locus of points in the plane that are equidistant from A and B and are 10 cm from A is ? one point.

Complete each statement in Exercises 9–12.

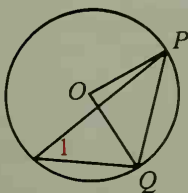
9. If $m\widehat{AB} = 80$, $m\widehat{CD} = 66$, and $m\widehat{DA} = 70$, then $m\angle ASD = \underline{?}$.
10. If $BS = 12$, $SD = 6$, and $AS = 8$, then $SC = \underline{?}$.
11. If $RD = 9$ and $DB = 16$, then $RC = \underline{?}$.
12. If $m\widehat{AB} = 80$, $m\widehat{CD} = 66$, and $m\widehat{DA} = 70$, then $m\angle R = \underline{?}$.



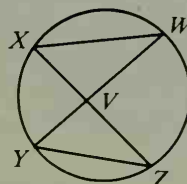
13. Draw a large $\triangle MNP$. Construct a $\triangle XYZ$ congruent to $\triangle MNP$.

- B**
14. Describe the locus of points in space that are 4 cm from plane X and 8 cm from point J .
 15. $\triangle DEF$ is a right triangle with hypotenuse \overline{DF} . $DE = 6$ and $EF = 8$.
 - a. If $\overline{EX} \perp \overline{DF}$ at X , find DX .
 - b. If Y lies on \overline{DF} and \overrightarrow{EY} bisects $\angle DEF$, find DY .
 16. If each interior angle of a regular polygon has measure 160, how many sides does the polygon have?

17. Given: $\odot O$; $m\angle 1 = 45$
Prove: $\triangle OPQ$ is a 45° - 45° - 90° \triangle .



18. Use the given diagram to prove that $WX \cdot YV = XV \cdot ZY$.



19. Draw \overline{AB} . Construct any rectangle with a diagonal congruent to \overline{AB} .