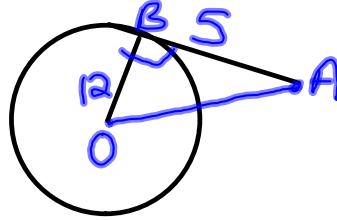


Review 12.1-12.4

1. If AB is tangent to circle O at B, and AB = 5 and BO = 12, find the length of AO.

$$5^2 + 12^2 = c^2$$

$$13$$



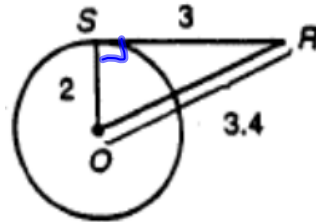
2. Determine if segment RS is tangent to circle O.

$$2^2 + 3^2 = 3.4^2$$

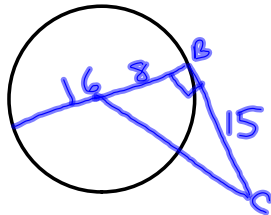
$$4 + 9 = 11.56$$

$$13 \neq 11.56$$

$$No$$



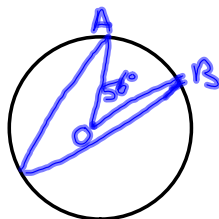
3. Diameter AB in circle O has length 16. Tangent CB to circle O has length 15. Find the distance between point C and the center of the circle.



$$8^2 + 15^2 = c^2$$

$$17$$

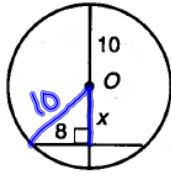
4. In circle O, central angle AOB measures 56° . Find the number of degrees in inscribed angle ACB.



$$28^\circ$$

Find the lengths of the segments labeled x.

5.



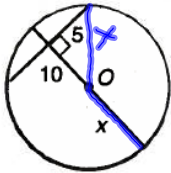
$$x^2 + 8^2 = 10^2$$

$$x^2 + 64 = 100$$

$$x^2 = 36$$

$$x = 6$$

6.



$$5^2 + 10^2 = x^2$$

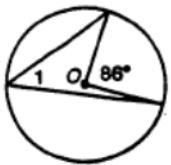
$$25 + 100 = x^2$$

$$\sqrt{125} = \sqrt{x^2}$$

$$x = 11.18$$

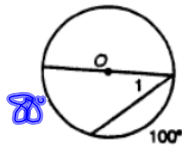
Find the degree measure of angle 1.

8.



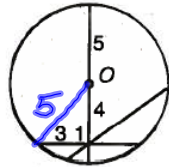
$$43^\circ$$

9.



$$m\angle 1 = 40^\circ$$

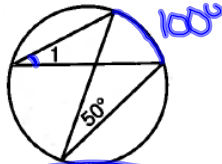
10.



$$3^2 + 4^2 = 5^2$$
$$25 = 25$$

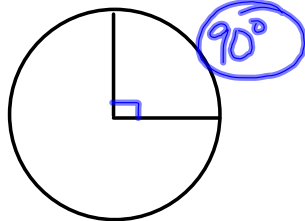
$$m\angle 1 = 90^\circ$$

11.

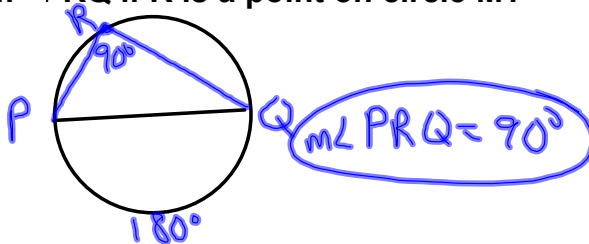


$$m\angle 1 = 50^\circ$$

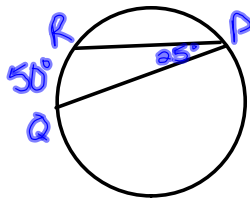
12. In circle C, radii BC and DC are perpendicular. What is $m\widehat{BD}$?



13. Segment PQ is a diameter of circle M. What is $m\angle PRQ$ if R is a point on circle M?



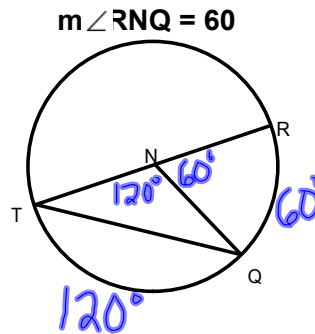
14. Suppose R, P, and Q are on a circle and $m\widehat{RPQ} = 25$. Find $m\widehat{RPQ}$.



$$360 - 50 = \boxed{310^\circ}$$

15. $\widehat{RQ} = 60^\circ$
 $\angle RTQ = 30^\circ$
 $\widehat{TQ} = 120^\circ$
 $\angle TNQ = 120^\circ$

$\widehat{TQR} = 180^\circ$
 $\widehat{QTR} = 300^\circ$
 $\widehat{QRT} = 240^\circ$
 $\widehat{TQRT} = 360^\circ$



Find the degree measure of the following arcs in circle O.

1. arc AB 90°
2. arc AD 120°
3. arc AC 130°
4. arc CD 110°
5. arc ADC 230°
6. arc ACD 240°
7. arc BAD 210°
8. arc BCD 150°

