

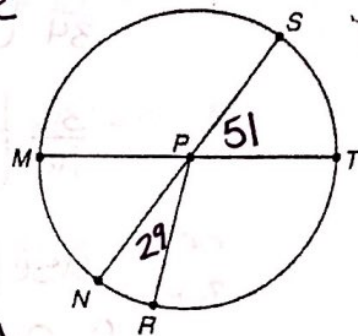
#3

Refer to $\odot P$ for Exercises 1–8. If \overline{SN} and \overline{MT} are diameters with $m\angle SPT = 51$ and $m\angle NPR = 29$, determine whether each arc is a minor arc, a major arc, or a semicircle. Then find the degree measure of each arc. degree of arc = angle

1. $m\widehat{NR}$ minor, 29° 2. $m\widehat{ST}$ minor, 51°
 3. $m\widehat{TSR}$ major, 260° 4. $m\widehat{MST}$ Semicircle 180°

If $MT = 15$, find the length of each arc. Round to the nearest tenth.

5. \widehat{NR} $\frac{29}{360} (15\pi) = \boxed{3.8}$ 6. \widehat{ST} $\frac{51}{360} (15\pi) = \boxed{6.7}$
 7. \widehat{TSR} $\frac{260}{360} (15\pi) = \boxed{34.0}$ 8. \widehat{MST} $\frac{180}{360} (15\pi) = \boxed{23.6}$



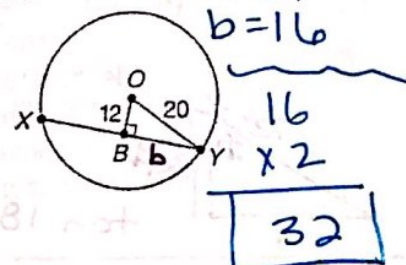
In each circle, O is the center. Find each measure.

1. $m\widehat{NP}$

$$\begin{array}{r} 360 \\ - 120 \\ \hline 240 \\ \div 3 \\ \hline 80 \end{array}$$
 $\boxed{80^\circ}$

2. KM $12 + 12 = \boxed{24}$

3. XY



4. Suppose a chord is 20 inches long and is 24 inches from the center of the circle. Find the length of the radius.

$$\begin{array}{l} 10^2 + 24^2 = r^2 \\ 100 + 576 = r^2 \\ r^2 = 676 \\ r = 26 \text{ in} \end{array}$$
 $\boxed{r = 26 \text{ in}}$

5. Suppose a chord of a circle is 5 inches from the center and is 24 inches long. Find the length of the radius.

$$\begin{array}{l} 5^2 + 12^2 = r^2 \\ 169 = r^2 \\ \sqrt{169} = \sqrt{r^2} \\ r = 13 \text{ in} \end{array}$$
 $\boxed{r = 13 \text{ in}}$



In $\odot P$, $m\widehat{SV} = 86$ and $m\angle RPS = 110$. Find each measure.

4. $m\angle PRS$
 $180 - 110 = 70$
 $70 \div 2 = \boxed{35^\circ}$

5. $m\widehat{RT}$ $\boxed{86^\circ}$

6. $m\angle RVT = \frac{1}{2} (86)$
 $\boxed{43^\circ}$

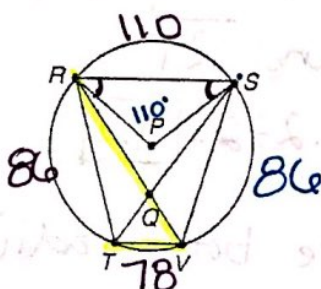
7. $m\angle SVT = \frac{1}{2} (110 + 86)$
 $\boxed{98^\circ}$

8. $m\angle TQV$
 $= \frac{1}{2} (110 + 78)$
 $\boxed{94^\circ}$

9. $m\angle RQT$
 $= \frac{1}{2} (86 + 86)$
 $\boxed{86^\circ}$

10. $m\angle QRT$
 $= \frac{1}{2} (78)$
 $\boxed{39^\circ}$

11. $m\widehat{RS}$ $\boxed{110^\circ}$

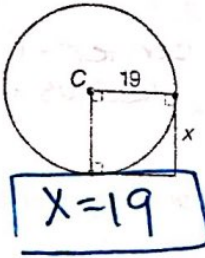


#4

GEOM CP Spring Review

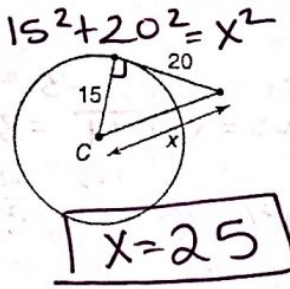
For each $\odot C$, find the value of x . Assume that segments that appear to be tangent are tangent.

1.



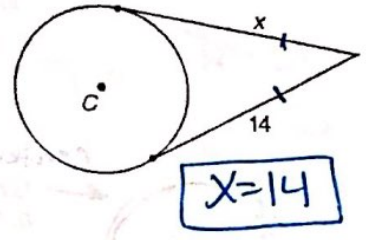
$x = 19$

2.



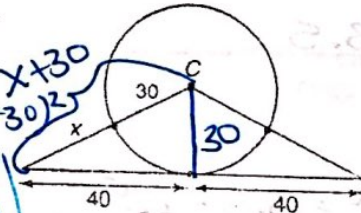
$x = 25$

3.



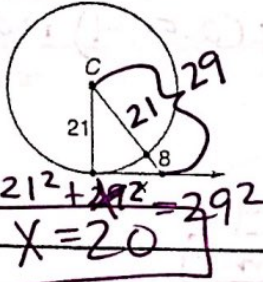
$x = 14$

4.



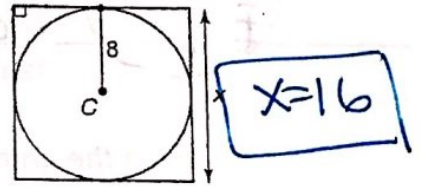
$x = 20$

5.



$x = 20$

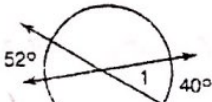
6.



$x = 16$

Find the measure of each numbered angle.

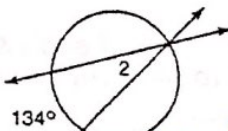
1.



$m\angle 1 = \frac{1}{2}(52 + 40)$
 $m\angle 1 = 46^\circ$

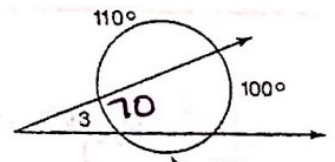
Given $\odot T$, find the value of x .

2.



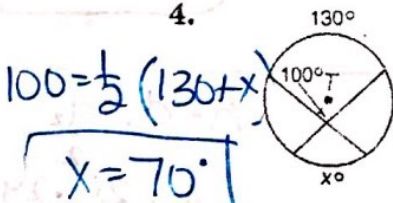
$m\angle 2 = \frac{1}{2}(134)$
 $m\angle 2 = 67^\circ$
 $x = 130^\circ$

3.



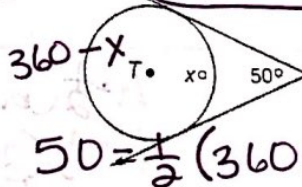
$m\angle 3 = \frac{1}{2}(110 - 100)$
 $m\angle 3 = 5$

4.



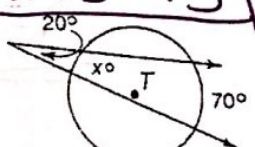
$100 = \frac{1}{2}(130 + x)$
 $x = 70^\circ$

5.



$50 = \frac{1}{2}(360 - x - x)$

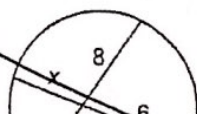
6.



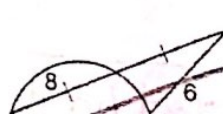
$20 = \frac{1}{2}(70 - x)$
 $x = 30^\circ$

Find the value of x to the nearest tenth. Assume segments that appear tangent to be tangent.

1.



2.



3.

