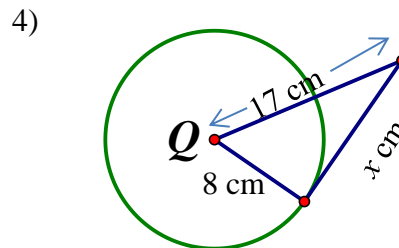
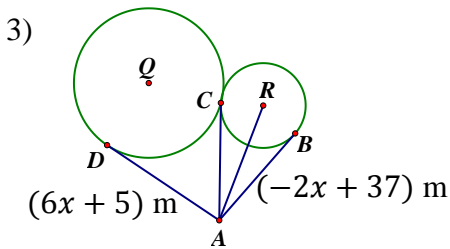
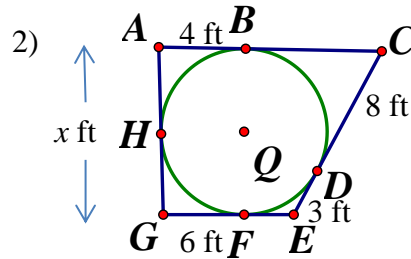
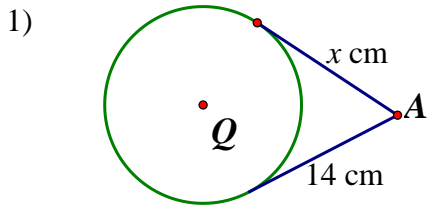


Chapter 9 Homework Packet #2

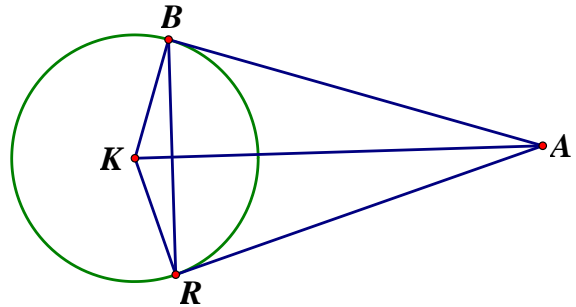
§9-5

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

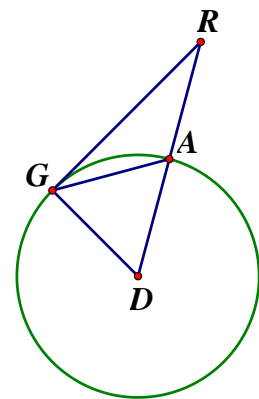


Write a two-column proof.

- 5) Given: \overline{AB} and \overline{AR} are tangent to $\odot K$
 Prove: $\angle BAK \cong \angle RAK$

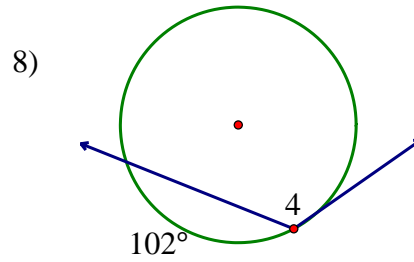
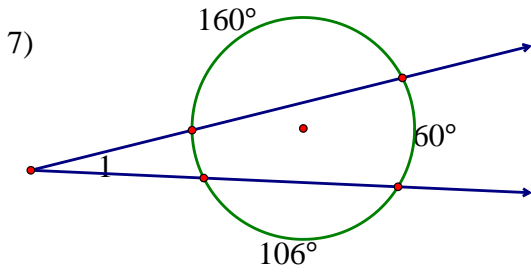


- 6) Given: \overline{GR} is tangent to $\odot D$ at G ,
 $\overline{AG} \cong \overline{DG}$
 Prove: \overline{GA} bisects \overline{RD}

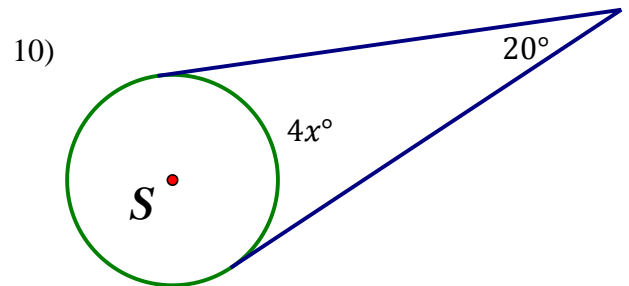
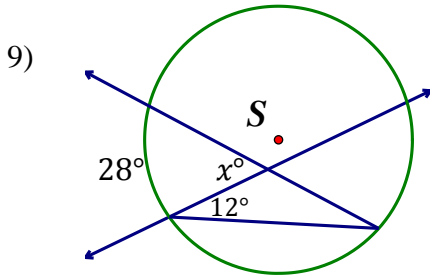


§9-6

Find the measure of each numbered angle.



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

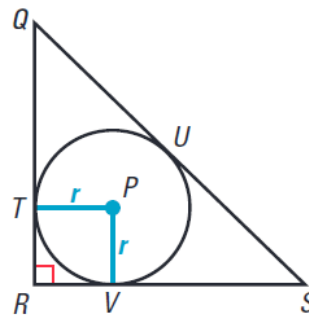


11)

GIVEN \blacktriangleright $\angle R$ is a right angle. Circle P is inscribed in $\triangle QRS$. T , U , and V are points of tangency.

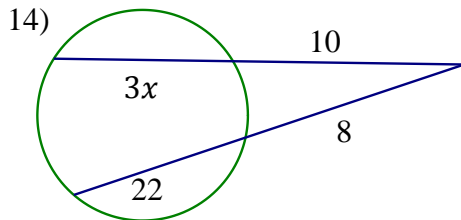
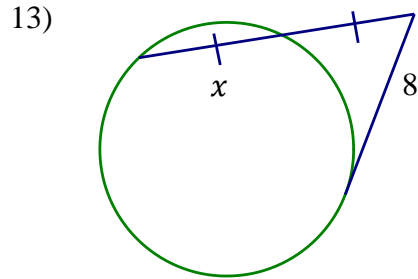
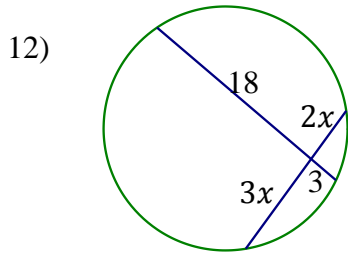
PROVE \blacktriangleright $r = \frac{1}{2}(QR + RS - QS)$

Plan for Proof Prove that $TPVR$ is a square. Then show that $\overline{QT} \cong \overline{QU}$ and $\overline{SU} \cong \overline{SV}$. Finally, use the Segment Addition Postulate and substitution.



§9-7

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



Write a two-column proof.

- 15) Given: $\odot H, \overline{AO} \perp \overline{DM}$
 Prove: $OT \cdot TA = (TM)^2$

- 16) Prove the theorem: If a tangent segment and a secant segment are drawn to a circle from an exterior point, then the square of the measure of the tangent segment is equal to the product of the measures of the secant segment and its external secant segment.

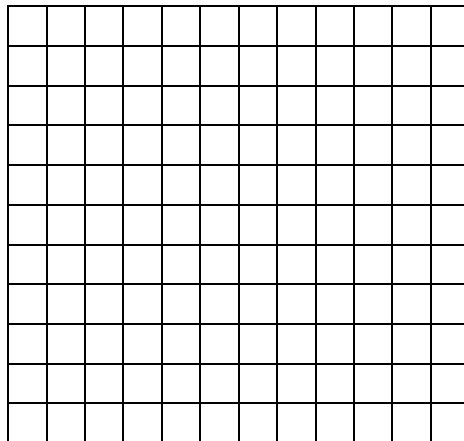
§9-8

17) Write an equation of the circle that has a diameter of 12 units and whose center is translated 18 units to the left and 7 units down from the origin.

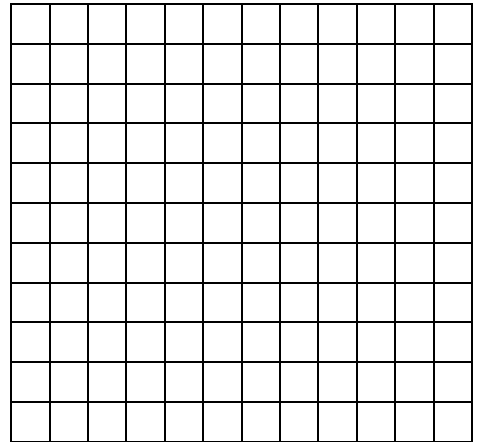
18) Write an equation of the circle that has a diameter whose endpoints are at (2, 7) and (-6, 15).

Graph the circle $(x - 6)^2 + (y + 2)^2 = 36$ and the line having the given equation. Determine whether the line is a secant or a tangent of the circle. Explain your reasoning.

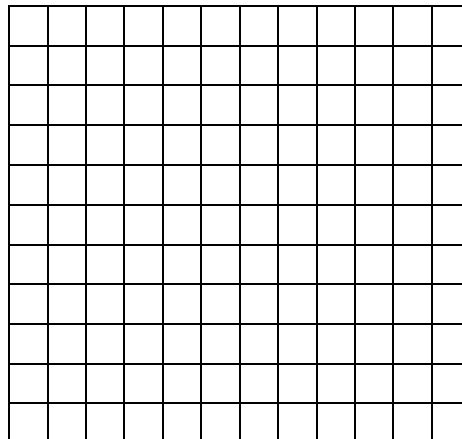
19) $y = 2x - 2$



20) $x = 0$



21) $y = -\frac{1}{6}x + 5$



22) $y = -x$

