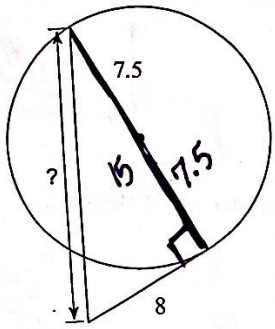
Geometry Name KW

Review of Geometry Angle and Segment Relationships (Mixed Review)

Find the segment length indicated. Assume that lines which appear to be tangent are tangent.

1)



A radius is ⊥ to a tangent line.

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

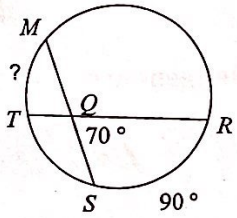
$64 + 225 = c^2$

$289 = c^2$

$\boxed{17 = c}$

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

2)



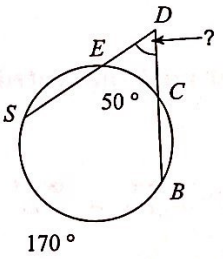
$\frac{\text{Arc} + \text{Arc}}{2} = \text{Angle}$

$\frac{90 + x}{2} = 70$

$90 + x = 140$

$\boxed{x = 50°}$

3)



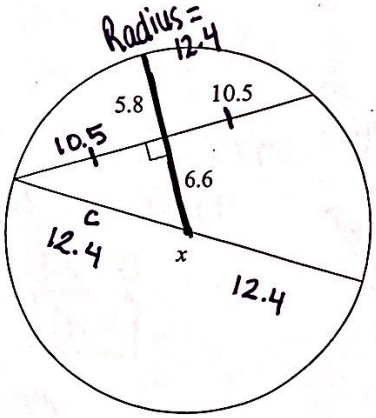
$\frac{\text{Big} - \text{Small}}{2} = \text{Angle}$

$\frac{170 - 50}{2} = x$

$\boxed{x = 60°}$

Find the length of the segment indicated. Round your answer to the nearest tenth if necessary.

4)



Radius bisects chord since chord & radius are ⊥

$6.6^2 + 10.5^2 = c^2$

$\sqrt{153.81} = \sqrt{c^2}$

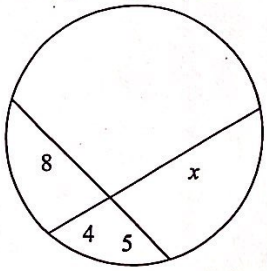
$12.4 = c$

OR See the 5.8 and 6.6 as a radius.

$\boxed{x = 24.8}$

Solve for x. Assume that lines which appear tangent are tangent.

5) Two Chords

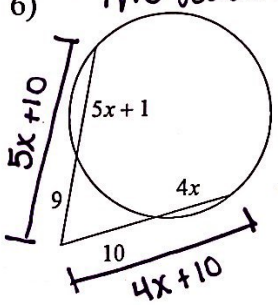


$4x = 8 \cdot 5$

$4x = 40$

$\boxed{x = 10}$

6) Two Secants



$10(4x + 10) = 9(5x + 10)$

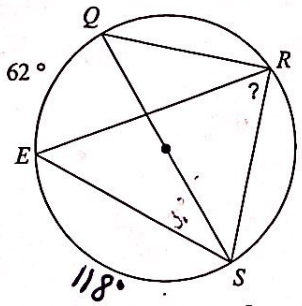
$40x + 100 = 45x + 90$

$10 = 5x$

$\boxed{x = 2}$

Find the measure of the arc or angle indicated.

7)

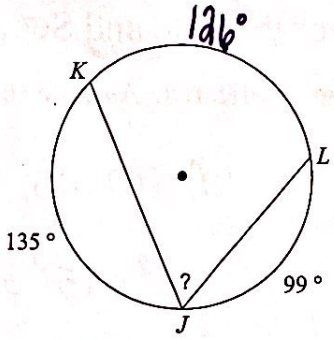


$180 - 62 = 118$

$\frac{1}{2}(118) = 59°$

$? = 59°$

8)



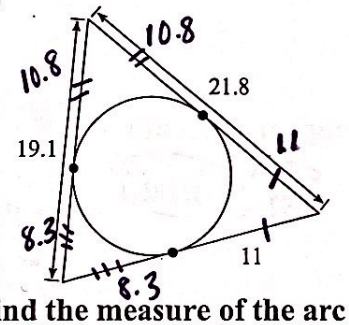
$360 - 99 - 135 = 126°$

$\frac{1}{2}(126) = 63°$

$? = 63°$

Find the perimeter of each polygon. Assume that lines which appear to be tangent are tangent.

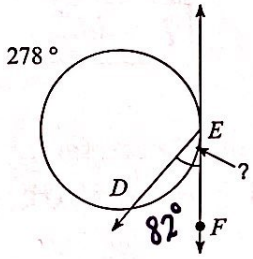
9)



$P = 60.2$

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

10)



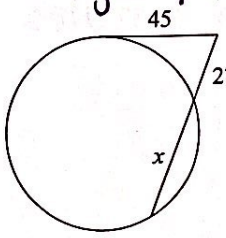
$360 - 278 = 82°$

$\frac{1}{2}(82) = 41°$

$? = 41°$

Solve for x. Assume that lines which appear tangent are tangent.

11) Tangent / Secant



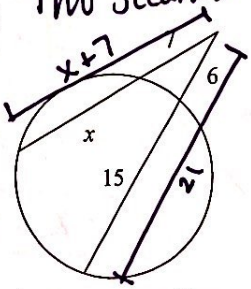
$(45)^2 = 27(x + 27)$

$2025 = 27x + 729$

$1296 = 27x$

$x = 48$

12) Two Secants



$7(x + 7) = 6(21)$

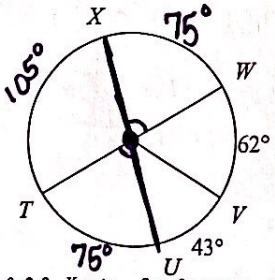
$7x + 49 = 126$

$7x = 77$

$x = 11$

Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

13) $m\overset{\frown}{VUX} = 223°$



14) $m\overset{\frown}{WY} = 155°$