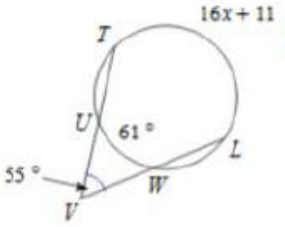
Geometry Name_____

Circle Properties Review

Date_____ Period____

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

1)



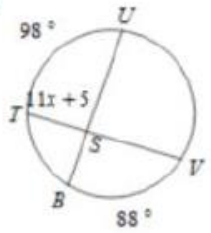
$2(55) = 16x + 11 - 61$

$110 = 16x - 50$

$160 = 16x$

$x = 10$

2)



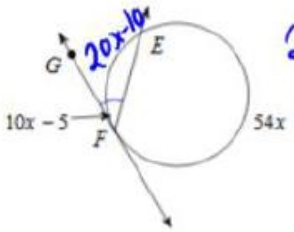
$2(11x + 5) = 98 + 88$

$22x + 10 = 186$

$22x = 176$

$x = 8$

3)



$2(10x - 5) = 20x - 10$

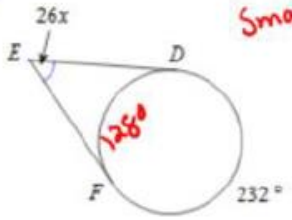
$20x - 10 + 54x = 360$

$74x - 10 = 360$

$74x = 370$

$x = 5$

4)



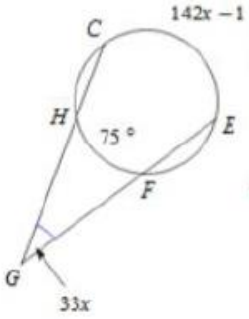
Small Arc $= 360 - 232 = 128$

$2(26x) = 232 - 128$

$52x = 104$

$x = 2$

5)



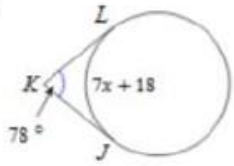
$2(33x) = 142x - 1 - 75$

$66x = 142x - 76$

$-76x = -76$

$x = 1$

6)



Special property of tangent - Tangsit

$180 - \text{small} = \text{angle}$

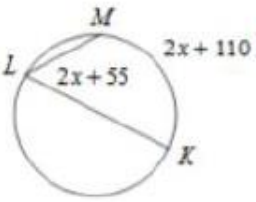
$180 - (7x + 18) = 78$

$162 - 7x = 78$

$-7x = -84$

$x = 12$

7)



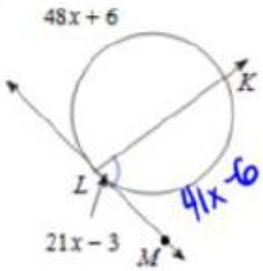
$2(2x + 55) = 2x + 110$

$4x + 110 = 2x + 110$

$2x = 0$

$x = 0$

8)



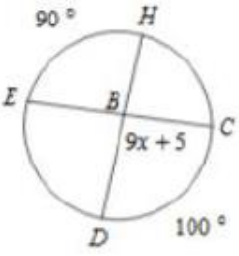
$2(21x - 3) = 42x - 6$

$42x - 6 + 48x + 6 = 360$

$90x = 360$

$x = 4$

9)



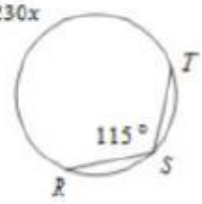
$2(9x + 5) = 100 + 90$

$18x + 10 = 190$

$18x = 180$

$x = 10$

10)

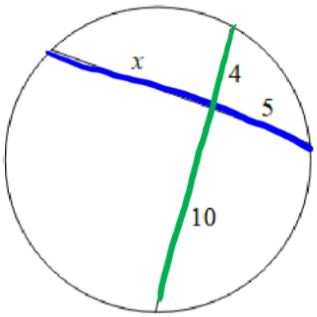


$2(115) = 230x$

$230 = 230x$

$x = 1$

11) Part(Part) = Part(Part)

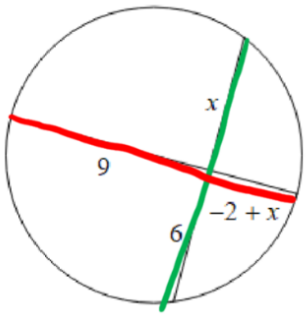


$5(x) = 4(10)$

$5x = 40$

$x = 8$

12) Part(Part) = Part(Part)



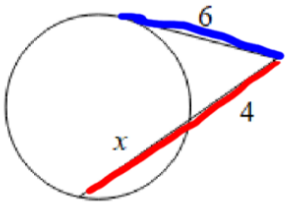
$6(x) = 9(-2+x)$

$6x = -18 + 9x$

$-6x = -18$

$x = 3$

13) Out(whole) = out(whole)



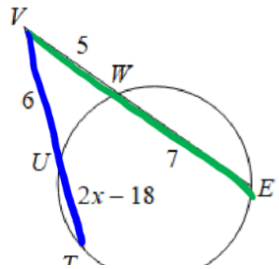
$6(6) = 4(x+4)$

$36 = 4x + 16$

$20 = 4x$

$5 = x$

14) Find TU — Out(whole) = out(whole)



$5(7+5) = 6(2x-18+6)$

$60 = 6(2x-12)$

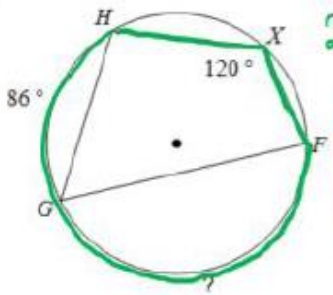
$60 = 12x - 72$

$132 = 12x$

$11 = x$

Find the measure of the arc or angle indicated.

15)

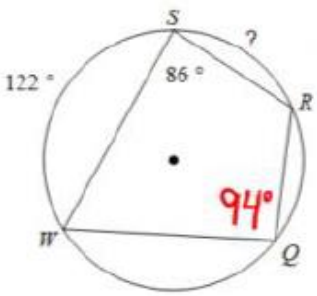


$2(120) = 86 + ?$

$240 = 86 + ?$

$154 = ?$

16)



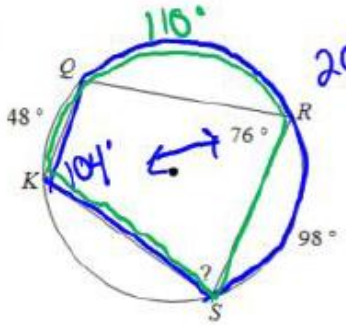
$m\angle Q = 180 - 86 = 94$

$2(94) = 122 + ?$

$188 = 122 + ?$

$66 = ?$

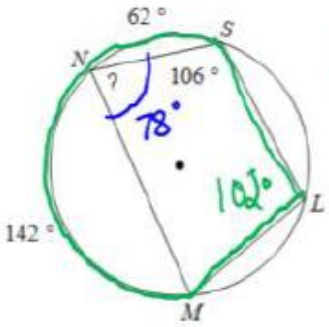
17)



$208 - 98 = 110$

$2(?) = 110 + 48$

18)



$2(m\angle L) = 142 + 62$

$2(m\angle L) = 204$

$m\angle L = 102$

$? = 180 - 102 = 78°$