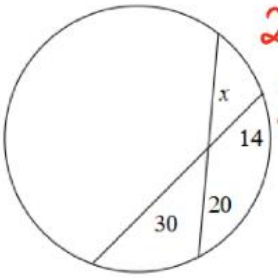
Geometry Name_____

Segments: Chord-Chord

Date_____ Period____

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

1)

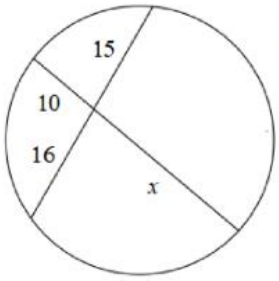


$20(x) = 30(14)$

$20x = 420$

$x = 21$

2)

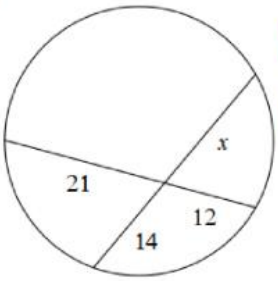


$10(x) = 16(15)$

$10x = 240$

$x = 24$

3)

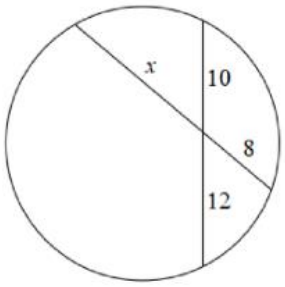


$14(x) = 21(12)$

$14x = 252$

$x = 18$

4)

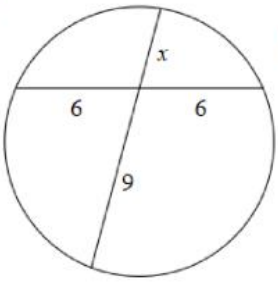


$8(x) = 10(12)$

$8x = 120$

$x = 15$

5)

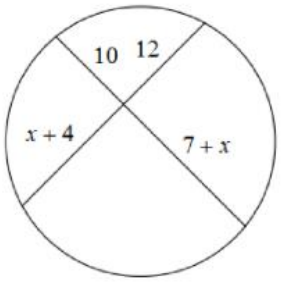


$9(x) = 6(6)$

$9x = 36$

$x = 3$

6)



$12(x+4) = 10(x+7)$

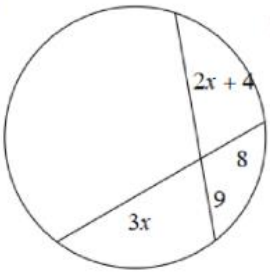
$12x + 48 = 10x + 70$

$2x + 48 = 70$

$2x = 22$

$x = 11$

7)



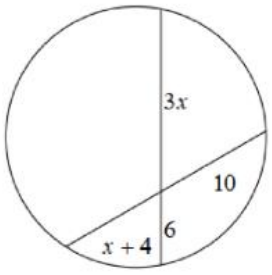
$9(2x+4) = 8(3x)$

$18x + 36 = 24x$

$36 = 6x$

$x = 6$

8)



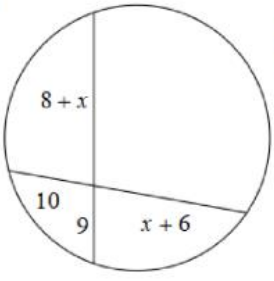
$10(x+4) = 6(3x)$

$10x + 40 = 18x$

$40 = 8x$

$x = 5$

9)



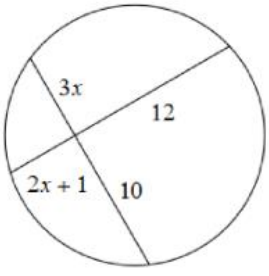
$9(x+8) = 10(x+6)$

$9x + 72 = 10x + 60$

$72 = x + 60$

$x = 12$

10)



$10(3x) = 12(2x+1)$

$30x = 24x + 12$

$6x = 12$

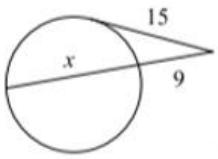
$x = 2$

Geometry Name_____

Segments: Secants and Tangents

Date_____ Period____

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

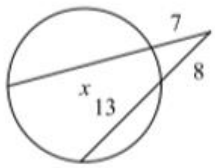
1) 

$(15)^2 = 9(9+x)$

$225 = 81+9x$

$144 = 9x$

$x = 16$

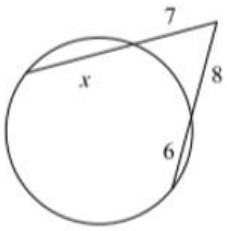
2) 

$8(8+13) = 7(7+x)$

$168 = 49+7x$

$119 = 7x$

$x = 17$

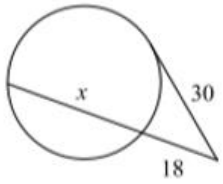
3) 

$8(8+6) = 7(7+x)$

$112 = 49+7x$

$63 = 7x$

$x = 9$

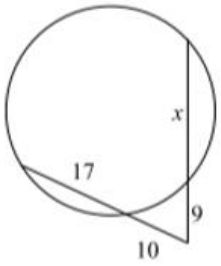
4) 

$(30)^2 = 18(18+x)$

$900 = 324+18x$

$576 = 18x$

$x = 32$

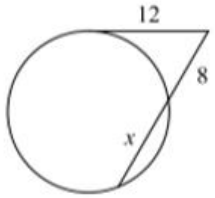
5) 

$10(10+17) = 9(9+x)$

$270 = 81+9x$

$189 = 9x$

$x = 21$

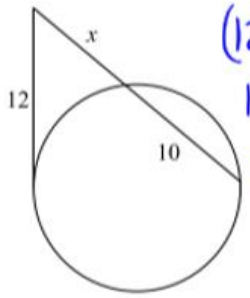
6) 

$(12)^2 = 8(8+x)$

$144 = 64+8x$

$80 = 8x$

$x = 10$

7) 

$(12)^2 = x(x+10)$

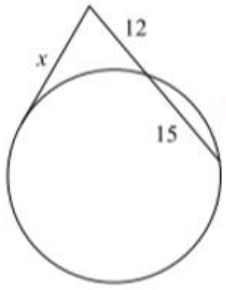
$144 = x^2+10x$

$x^2+10x-144 = 0$

$(x-8)(x+18) = 0$

$x-8=0 \quad x+18=0$

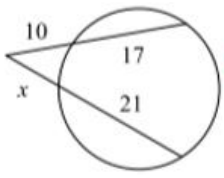
$x = 8 \quad x = -18$

8) 

$x^2 = 12(12+15)$

$\sqrt{x^2} = \sqrt{324}$

$x = 18$

9) 

$x(x+21) = 10(10+17)$

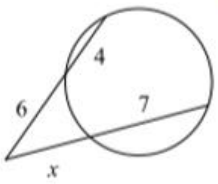
$x^2+21x = 270$

$x^2+21x-270 = 0$

$(x-9)(x+30) = 0$

$x-9=0 \quad x+30=0$

$x = 9 \quad x = -30$

10) 

$x(x+7) = 6(6+4)$

$x^2+7x = 60$

$x^2+7x-60 = 0$

$(x+12)(x-5) = 0$

$x+12=0 \quad x-5=0$

$x = -12 \quad x = 5$