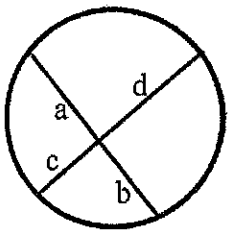
Name: Key Hr: ___

11 & 12 do as a class

12.5 Secant, Tangent, and Chord Lengths

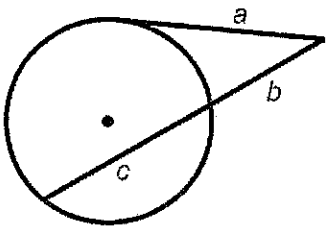
outside · whole = outside · whole

Three rules:



Two Chords

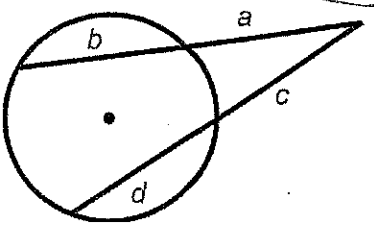
$ab = cd$



Secant and Tangent

$b(b+c) = a^2$

Outside(Whole) = Outside(Whole)

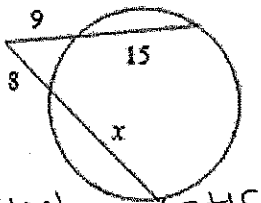


Two Secants

$a(a+b) = c(c+d)$

Outside(Whole) = Outside(Whole)

1.



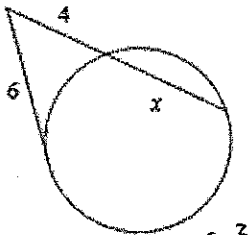
$8(8+x) = 9(9+15)$

$64 + 8x = 216$

$8x = 152$

$x = 19$

2.



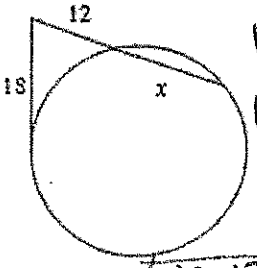
$4(4+x) = 6^2$

$16 + 4x = 36$

$4x = 20$

$x = 5$

3.



$12(12+x) = 18^2$

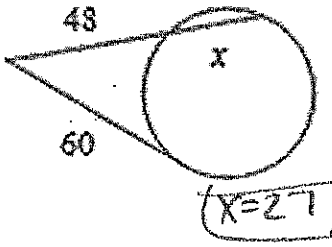
$144 + 12x = 324$

$12x = 180$

$x = 15$

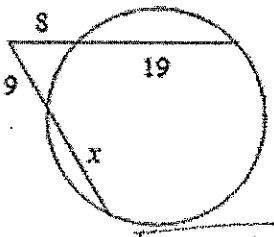
$x = 15$

4.



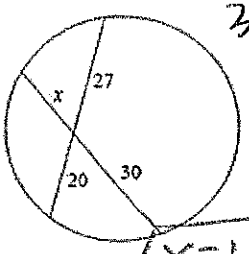
$x = 27$

5.



$x = 15$

6.



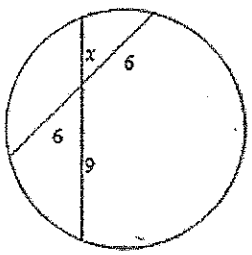
$30x = 20 \cdot 27$

$30x = 540$

$x = 18$

$x = 18$

7.

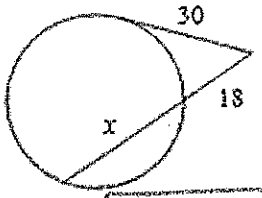


$6 \cdot 6 = 9x$

$36 = 9x$

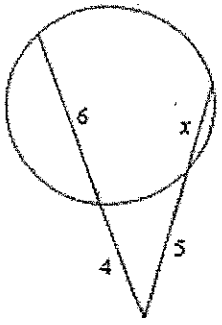
$x = 4$

8.



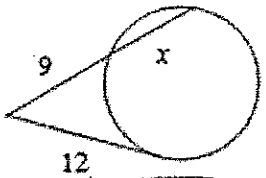
$x = 32$

9.



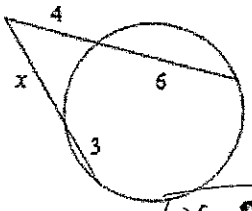
$x = 3$

10.



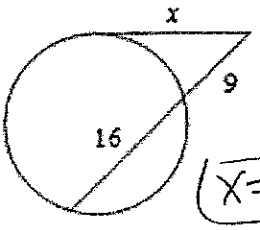
X=7

11.



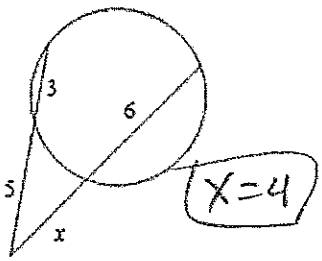
X=5

12



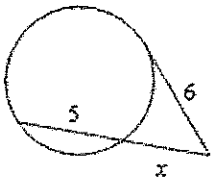
X=15

13. a=1 b=6 c=-40



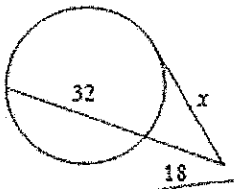
X=4

14.



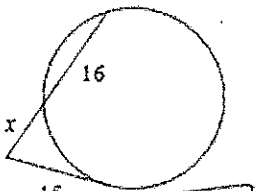
X=4

15.



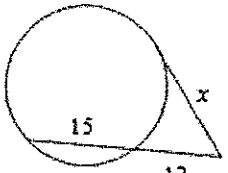
X=30

16.



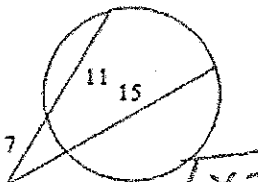
X=9

17.



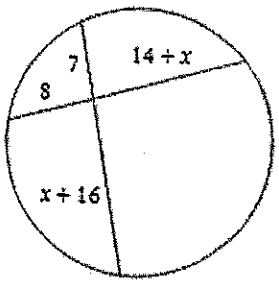
X=18

18.



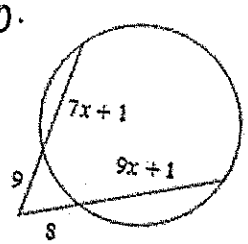
X=6

19.



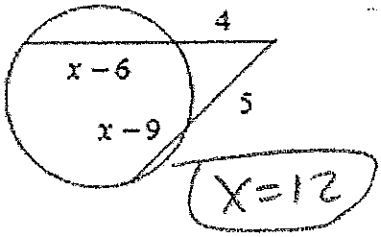
X=0

20.



X=2

21.



X=12