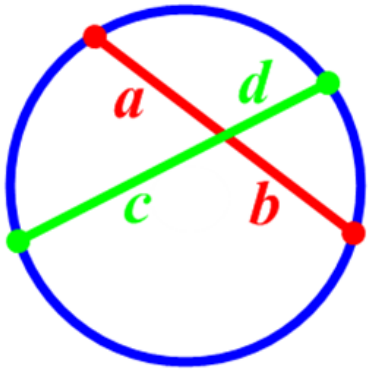
Th. 10-15

If 2 chords intersect in a circle, then the products of their measures of the segments of the chords are equal.

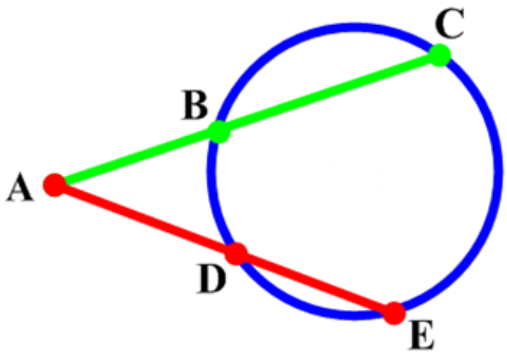
$$ab = cd$$



Th. 10-16

If 2 secant segments are drawn to a circle from an exterior pt., then the product of the measures of one secant segment and its external secant segment is equal to the product of the measures of the other secant segment and its external secant segment.

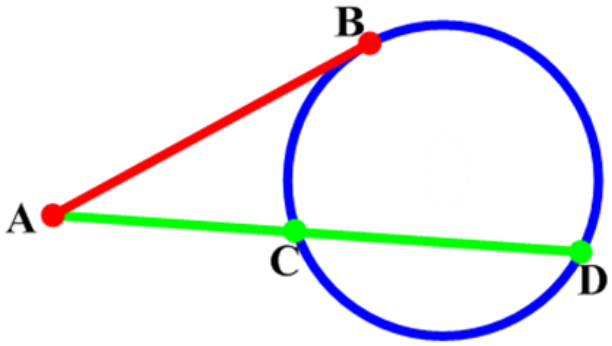
$AC * AB = AE * AD$



Th. 10-17

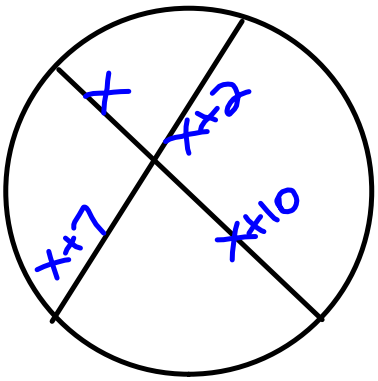
If a tangent segment and a secant segment are drawn to a circle from an exterior pt., then the square of the measure of the tangent segment is equal to the product of the measures of the secant segment and its external secant segment.

$$AB^2 = AD * AC$$



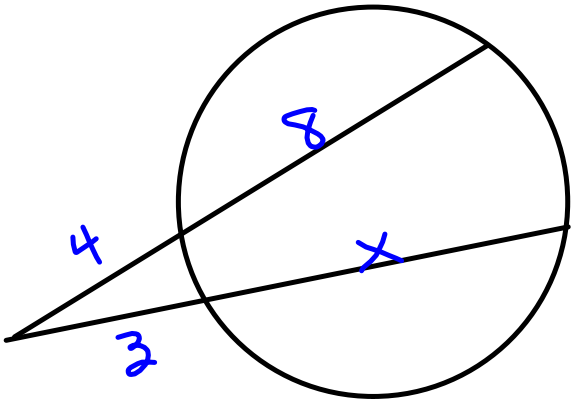
HW 10.7

9)



$(x+7)(x+2)=x(x+10)$

10)



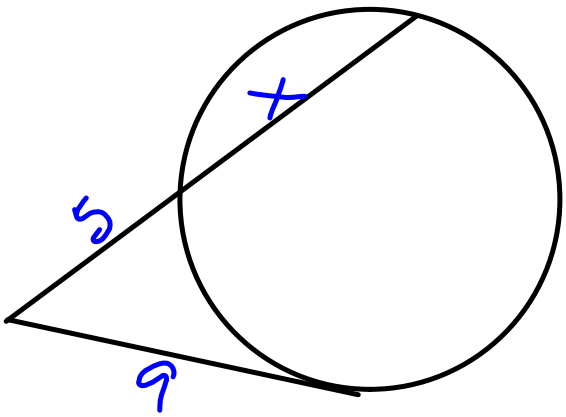
$12(4)=(x+3)3$

$48=3x+9$

$39=3x$

$x=13$

12)



$9^2=5(5+x)$

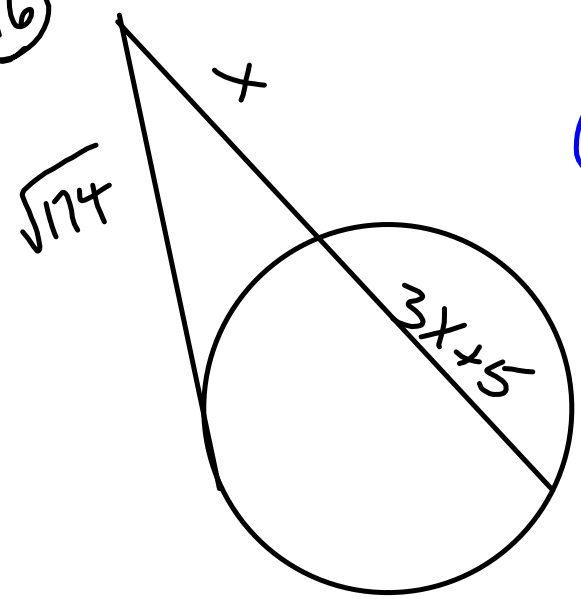
$81=25+5x$

-25

$56=5x$

$x=11\frac{1}{5}$

(16)



$(\sqrt{174})^2 = x(x+3x+5)$

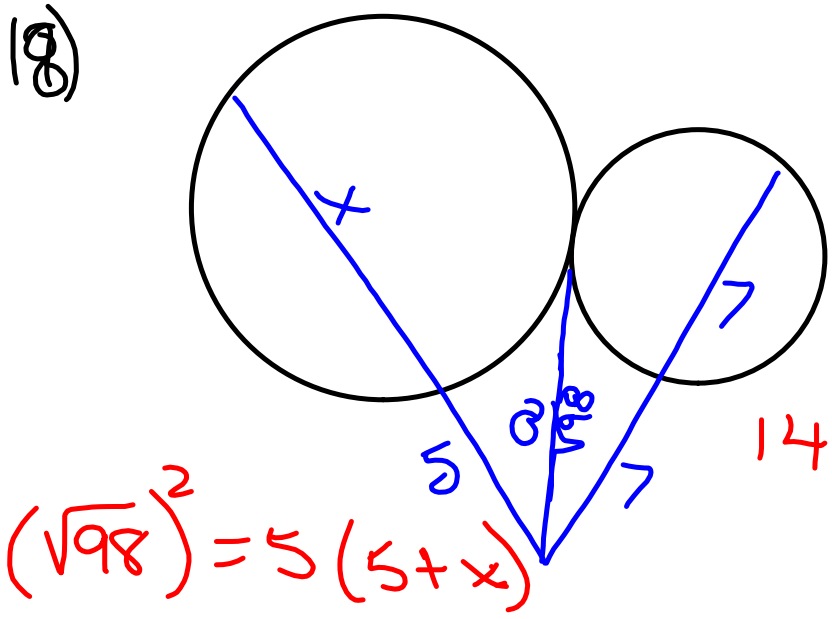
$174 = x(4x+5)$

$0 = 4x^2+5x-174$

$x = 6$

$(4x+29)(x-6)=0$

(18)



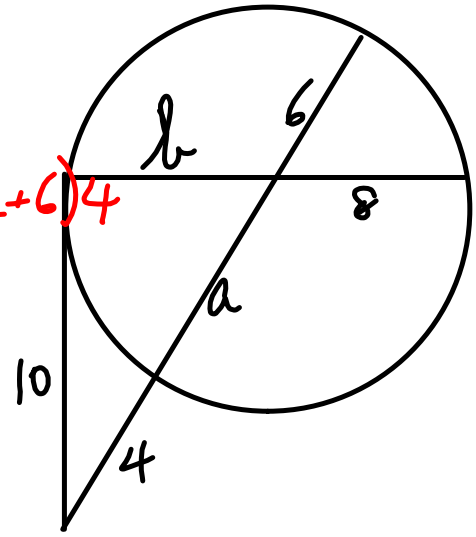
$14(7) = a^2$

$\sqrt{98} = a$

$(\sqrt{98})^2 = 5(5+x)$

$x = 14.6$

19)

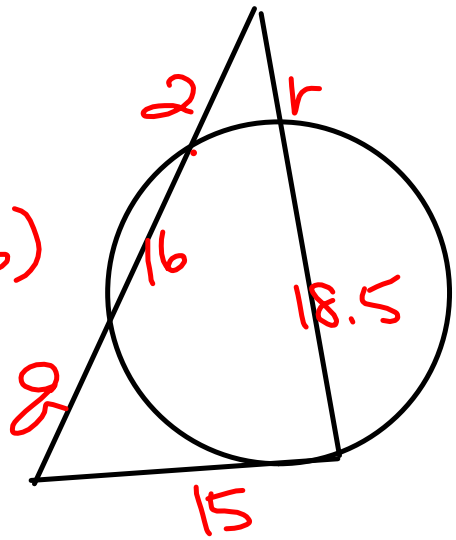


$10^2 = (4+a+6)4$

$a = 15$

$15(6) = b \cdot 8$

20)



$15^2 = q(q+16)$

$q =$

$2(18) = r(18.5 + r)$

$r =$

quad. formula