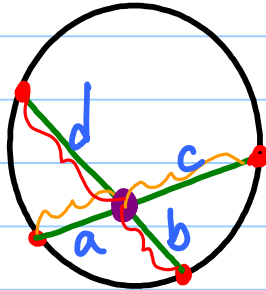


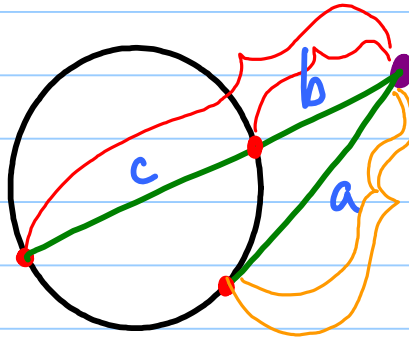
14.5 Segment Measures

Thm 14.13



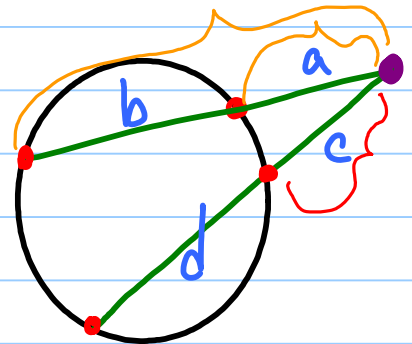
$$a \cdot c = b \cdot d$$

Thm 14.14

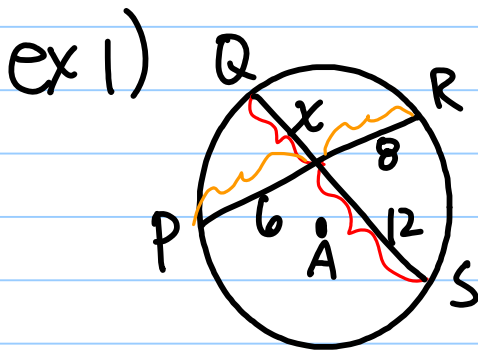


$$a \cdot a = b \cdot (b + c)$$

Thm 14.15



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



In $\odot A$, find x .

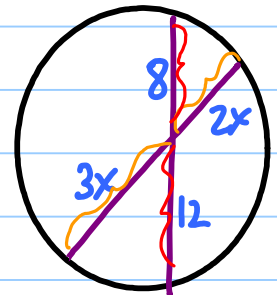
$$6 \cdot 8 = 12 \cdot x$$

$$48 = 12x$$

$$4 = x$$

Your Turn

Find x .



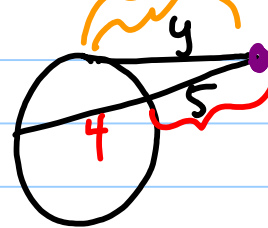
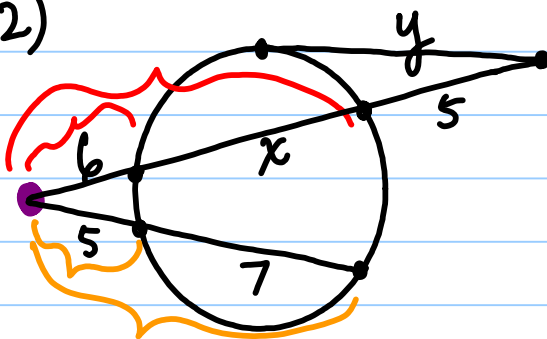
$$3x(2x) = 8 \cdot 12$$

$$\frac{6x^2}{6} = \frac{96}{6}$$

$$x^2 = 16$$

$$x = \sqrt{16} = 4$$

ex 2)



a) Find x

$$5 \cdot (5 + 7) = 6 \cdot (6 + x)$$

$$5 \cdot 12 = 36 + 6x$$

$$60 = 36 + 6x$$

$$\begin{array}{r} 60 \\ -36 \\ \hline 24 \end{array} = \frac{6x}{6}$$

$$\frac{24}{6} = \frac{6x}{6}$$

$$\boxed{x=4}$$

b) Find y .

$$y \cdot y = 5 \cdot (5 + 4)$$

$$y^2 = 5 \cdot 9$$

$$y^2 = 45$$

$$y = \sqrt{45}$$

$$y \approx 6.7$$