2.2 Angles and Segments Practice
Pre-AP Geometry

Name _____
Period _____ Date _____

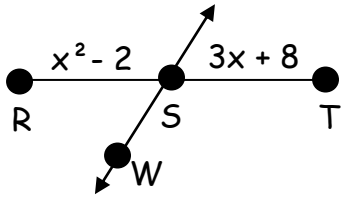
Make your own drawing. Write a geometry statement and then substitute and solve.

1. The measures of two complementary angles are in a ratio of 8:7. Find the measure of the smaller angle.

2. Given that B is between A and C, Find the value of x and the length of $\overline{BA}$.

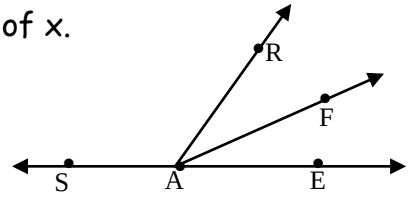
   BA = 4x + 3, AC = 38, BC = 2x – 1.

3. $\overline{WS}$ is the segment bisector of $\overline{RT}$. RS = (x^2 - 2) and ST = (3x + 8). Find ST.

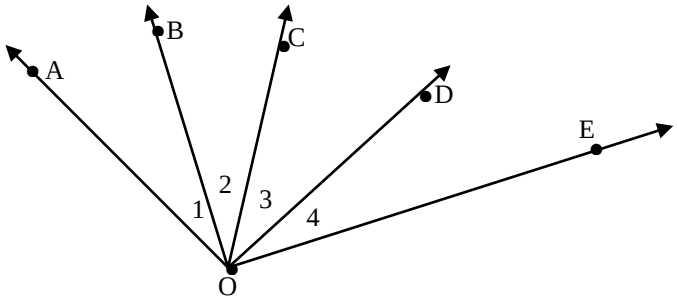


For #4-6, write a geometry statement and then substitute and solve.

4. $\overrightarrow{AF}$ bisects ∠RAE, m∠SAR=6x, m∠RAE=90-x, find the value of x.



5. Suppose $\overrightarrow{OC}$ bisects both ∠AOE and ∠BOD and that the m∠1= (2x – y)°, the m∠2 = (x)°, the m∠3 = (y + 5)°, and the m∠4 = 36°. Find the values of x and y.



6. Find the m∠AXB if the m∠AXC = 126°
and the ratio of the m∠AXB to m∠BXC is 7:2.