Angle Relationships – Day \_\_\_\_\_\_\_

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour: \_\_\_\_\_\_\_\_\_

Advanced Angle Relationships: Homework #2

**In the figure,** $\vec{YX} and \vec{YZ}$ **are opposite rays.** $\vec{YU}$ **bisects** $<ZYW$**, and** $\vec{YT}$ **bisects** $<XYW$**. Show your work. Justify steps!**

1. If $m<ZYU=8p-10$ and $m<UYW=10p-20$, find $m<ZYU$.

2. If the $m<1=5x+10$ and the $m<2=8x-23$, find $m<2$.

3. If $m<1=y$ and $m<XYW=6y-24$, find y.

4. if $m<WYZ=82$ and $m<ZYU=4r+25$, find r.

5. If $m<WYX=2(12b+7)$ and $m<ZYU=9b-1$, find $m<UYW$.

**Find x and the measure of each angle. Justify steps!**



6. 7.

**Draw a picture of indicated situation, find the value of the variable and answer each question. Justify steps!**

8. <ABC and <CBD are complementary. What does it mean to be complementary? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If $m<ABC=6m+8$ and $m<CBD=3m+10$, draw and label the figure and solve for m. Be sure to not use two of the same points (ex. You can’t have two point Bs, they must share one B.)

9.<ABC and <CBD are supplementary. What does it mean to be supplementary? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If $m<ABC=7n-9$ and $m<CBD=5n+45$, draw and label the figure and solve for n. Be sure to not use two of the same points (ex. You can’t have two point Bs, they must share one B.)