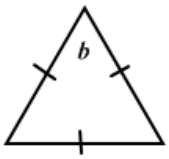
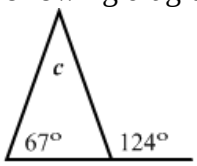
Name:_____ **Study Guide – Quiz 1.2**

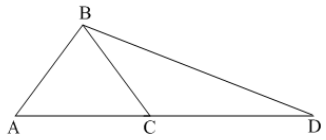
1. Find the missing angle in each of the following diagrams.





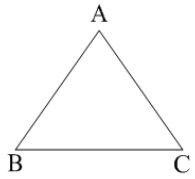
$m\angle a =$ _____ $m\angle b =$ _____ $m\angle c =$ _____

2. In the diagram below, triangle *ABC* is *equilateral* and $m\angle ADB = 27°$. Find $m\angle CBD$.



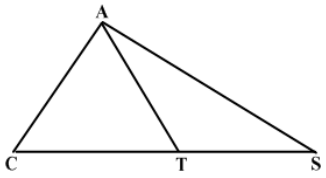
2._____

3. In the diagram below, triangle *ABC* is *isosceles* with vertex angle *B.* If $m\angle A = 63°$, find $m\angle B$.



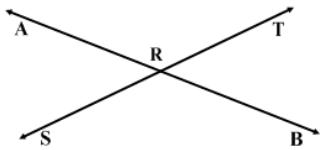
3._____

4. In the given diagram below, $\overline{AC} \cong \overline{AT}$. If $\angle ATS = 118°$, find $m\angle CAT$.



4._____

5. In the diagram, $\overleftrightarrow{AB}$ and $\overleftrightarrow{ST}$ intersect at *R.* If $m\angle SRA = 5x - 8$ and $m\angle TRB = 3x + 4$, find $m\angle SRB$.



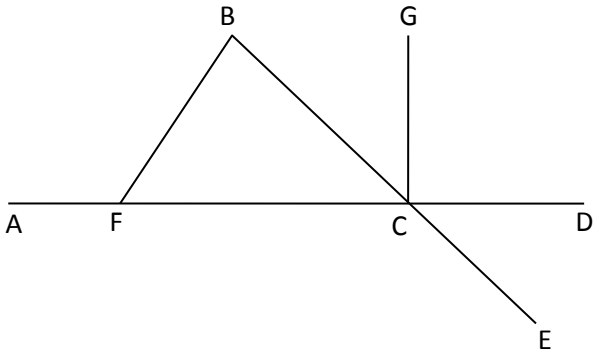
5._____

6. If $\overline{AD} \perp \overline{GC}$ and $m\angle ECD = 36°$, find

   a. $m\angle FCB$ _____

   b. $m\angle BCG$ _____

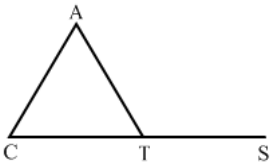
   c. $m\angle FCE$ _____



7. Angle *B* is 10 less than 4 times angle *A*. If the angles are complementary, find the number of degrees in the angle *B*.

7._____

8. If $m\angle CAT = 6x + 4$, $m\angle ACT = 8x - 15$, and $m\angle ATS = 13x - 1$, find *x*.



8._____

9. Fill in the blanks according to the definitions, theorems and postulates given in class.

   a. Two angles whose measures add up to 180 degrees are _____ angles.

   b. The exterior angle of a triangle is equal to the sum of the two _____ angles.

   c. Opposite angles formed by intersecting lines are _____angles.

   d. _____angles of an _____triangle are congruent.