**ML #2 - Angle Info and Transversals (Geometric Properties - Math 7+)**

**Part I: Fill in the vocabulary chart with a word and an example/picture.**

Vocabulary: Right Angle Complementary Angle Vertex

 Angle Supplementary Angle Acute Angle

 Obtuse Angle Adjacent Angle Ray

 Straight Angle

**Part II: Missing Angle Measurements**

* **The idea is to use our knowledge of geometry and algebra to find missing angle measures.**

**Supplementary Angles:**

**a**

**b**

** a is the supplement of  b**

** b is the supplement of  a**

**EXAMPLES:**

**1) Find the value of x.**

 **x 30˚**

 **2) Find the value of x.**

 **x 2x - 30**

 **3) Find the value of x.**

 **4x + 15 x**

**Complementary Angles:**

**b**

** a is the complement of  b**

** b is the complement of  a**

 **a**

**EXAMPLES:**

1. **Find x.** $x+40=90$

**40˚**

**x**

1. **Find x.**

**x**

 **3x + 20**

1. **Find x.**

 **3x**

 **5x -14**

**6) Find the missing measurements.**

 **b**

 **c**

**a**

 118°

**7) Find the missing measurements.**

 **x**

 **2x +6**

 **2x + 6**

 **x**

**Part III: Parallel Lines**

**Name all pairs of**

**Corresponding Angles: Alternate Interior Angles:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Alternate Exterior Angles: Vertical Angles:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Supplementary Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Example: In the above example line r and s are parallel and cut by a transversal, line t. If 3 is 68°, use what you know to find the measures of the rest of the angles in the diagram above.**

 **1 \_\_\_\_\_\_ 5 \_\_\_\_\_\_**

 **2 \_\_\_\_\_\_ 6 \_\_\_\_\_\_**

 **3 \_\_\_\_\_\_ 7 \_\_\_\_\_\_**

 **4 \_\_\_\_\_\_ 8 \_\_\_\_\_\_**

**Example: A line passes through 2 sides of a rectangle. The measure of**

 **2 is 45˚. What is the measure of the other angles?**

1

3

5

7

2

4

6

8

 **1 \_\_\_\_\_\_ 5 \_\_\_\_\_\_**

 **2 \_\_\_\_\_\_ 6 \_\_\_\_\_\_**

 **3 \_\_\_\_\_\_ 7 \_\_\_\_\_\_**

 **4 \_\_\_\_\_\_ 8 \_\_\_\_\_\_**