**ML #4 – Finding the Missing Angle (Angles Unit – Math 7)**

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

**Supplementary Angles:**

**b**

 **a is the supplement of  b**

** b is the supplement of  a**

**a**

**EXAMPLES:**

**1) Find the value of x. Write an equation to find x.**
$x+30=180$

 **x 30˚**

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

 **x 154˚**

**3) Find the supplement of the given angle.**

1. **40˚ , \_\_\_\_ b) 89˚, \_\_\_\_\_ c) 18˚, \_\_\_\_\_ d) 131˚, \_\_\_\_\_\_**

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

 **x 2x - 30**

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

 **4x + 15 x**

**Complementary Angles:**

 **a is the complement of  b**

** b is the complement of  a**

**b**

 **a**

**EXAMPLES:**

1. **Find x. Write an equation to find x.**

**x**

$x+40=90$

**40˚**

1. **Find x.**

**x**

**62˚**

1. **Find the complement of the given angle.**

1. **30˚ , \_\_\_\_ b) 59˚, \_\_\_\_\_ c) 18˚, \_\_\_\_\_ d) 68˚, \_\_\_\_\_\_**
2. **Find x.**

**x**

 **3x + 20**

1. **Find x.**

 **3x**

 **5x -14**

**Rule for Triangles:**

b

c

**EXAMPLES: Write an equation to find x:**

 **80˚** $40 + 80 + x = 180$

1. **Find x.**

**40˚**

a

**x**

1. **If a triangle has two angles with measures of 45˚ and 30˚, what is the measure of the 3rd angle? \_\_\_\_\_\_\_\_\_\_**
2. **Find x. ˚60**

**X 60˚**

1. **Find x. 5) Find a, b, c.**

 **x**

**75˚**

**b**

**c**

**a**

 **30˚**