**ML #3 – Triangle Info (Geometric Properties – Math 7+)**

**Part I: Vocabulary:**  Right Triangle Obtuse Triangle

 Acute Triangle Equilateral Triangle

 Scalene Triangle Triangle

 Isosceles Triangle

Vocab used to identify angles:

Vocab used to identify sides:

**Classify each triangle according to the angles and the sides.**

1. **2) 3)**

60°

140°

60°

60°

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part II: Triangle Basics**

**ANGLES of TRIANGLES**

60˚

110°

30˚

35°

35°

* **What is the sum of the interior angles of a triangle? \_\_\_\_\_\_\_\_**

**SIDE LENGTHS OF TRIANGLES**

* **Add the small and middle side length and compare the sum to the largest side.**

|  |  |
| --- | --- |
| **These side lengths WILL make triangles.** | **These side lengths WILL NOT make triangles.** |
| 12, 20, 13 | 12, 12, 25 |
| 24, 23, 46 | 20, 8, 12 |
| 10, 10, 10 | 6, 5, 30 |

* **The sum of the two smaller sides of a triangle must be \_\_\_\_\_\_\_\_\_\_\_than the largest side.**
* **Can the side lengths below make a triangle? How do you know?**

 **34 mm, 26 mm, 58 mm \_\_\_\_\_\_\_\_\_\_\_\_**

 **12 m, 8m, 20 m \_\_\_\_\_\_\_\_\_\_\_\_**

 **20 in, 20 in, 50 in \_\_\_\_\_\_\_\_\_\_\_\_\_**

 **12 ft, 2 ft, 18 ft \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PART III: Missing Angle Measurements**

55°

53°

45°

 *x*

EXAMPLES:

80°

40°

**x**

 1) Find x. 2) Find x.

3) If a triangle has two angles with measures of 45˚ and 30˚, what is the measure of the 3rd angle? \_\_\_\_\_\_\_\_\_\_

**x**

4) Find x. 5) Find x.

60°

120°

50°

60°

**x**

6) Find x. 7) Find x.

125°

*x*

*x*

*3x + 30*

30°

8)

*x*

42°

18°

32°