Topic: 3.1 Classifying and Drawing Triangles

1. Define a triangle concisely. What are not examples of triangles?
2. Based on the name, what do you think an equilateral triangle is? Draw an equilateral triangle, what do you notice about their sides and angles?
3. Draw an isosceles triangle, what do you notice about their sides and angles?
4. Draw an scalene triangle, what do you notice about their sides and angles?
5. Draw examples of equilateral, isosceles, and scalene triangles.
6. Draw examples of right angles, acute angles, and obtuse angles
7. Draw a right triangle, acute triangle, and obtuse triangle.
8. There are now 9 permutations of acute, right, and obtuse vs equilateral, isosceles, scalene, are all 9 possible to draw? Use geometric markings appropriately.

Equilateral Acute Triangle	Equilateral Right Triangle	Equilateral Obtuse Triangle
Isosceles Acute Triangle	Isosceles Right Triangle	Isosceles Obtuse Triangle
Scalene Acute Triangle	Scalene Right Triangle	Equilateral Obtuse Triangle

9. A triangle on a coordinate plane is made up of points $A(0, 2)$, $B(5, 1)$, and $C(-3, -5)$.
   - Find the lengths of $\overline{AB}$, $\overline{BC}$, and $\overline{AC}$.
   - Based on the side lengths, is the triangle equilateral, isosceles, or scalene?
   - Looking at the triangle, does it appear to be acute, right, or obtuse? How can you prove it? (Use Slope.)