Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Common Core Geometry Period: \_\_\_\_\_\_\_\_\_\_\_\_\_

**OBJECTIVE:** What terms should I be familiar with before starting constructions?

|  |  |  |
| --- | --- | --- |
| **TERM** | **PICTURE** | **OTHER** |
| **Equilateral Triangle:** A triangle with **3 EQUAL** sides |  |  |
| **Point:** A “**DOT**” in space that represents a location. It has no **DEPTH, WIDTH, or LENGTH** |  |  |
| **Line:** A set of **POINTS** (always **STRAIGHT**) |  |  |
| **Ray:** A part of a line with **1 ENDPOINT** and extends indefinitely in one direction |  |  |
| **Angle:** The union of **2 RAYS** w/ a common **ENDPOINT**, called a **VERTEX** |  |  |

**OBJECTIVE**: How do we draw an **EQUILATERAL TRIANGLE** using a compass and a straightedge?

**Scenario:** Andrew and Brad are in the park having a catch. Christina wants to join them. The kids want to stand so that the distance between any two of them is the same. Where do they stand?

**Example 1:** Maggie has 3 cats. She has heard that cats in a room position themselves at equal distances from one another and wants to test that theory. Maggie notes where two of her cats, Garfield and Sylvester are in her living room on the diagram below. If Tom came into the room, where would Maggie find him if the theory is correct?

S

G

Using what we just did for the cat question, what are the steps you would take to **CONTRUCT** an equilateral triangle using a compass and a straightedge?

**Definition:** Equilateral Triangle – A triangle with **3 =** sides.
 All **ANGLES** are also = and measure $60°$

Let’s do one together. Be sure to label the picture as we go.