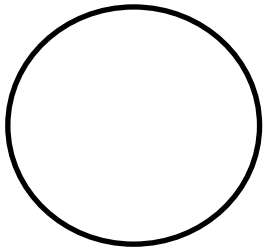
sName: _____ Construct Equilateral Triangle
Date: _____ Period: _____ Module 1: Lesson 1 NOTES

IMPORTANT VOCABULARY

- Segment

- Radius

- Circle



- Equilateral Triangle

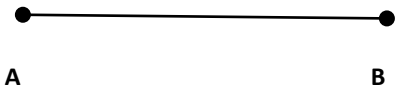
- Collinear

- Length of segment

Here are the standard notations for segments, lines, rays, and lengths:

- A ray with vertex A that contains the point B: $\overrightarrow{AB}$ or "ray AB"
- A line that contains points A and B: $\overleftrightarrow{AB}$ or "line AB"
- A segment with endpoints A and B: $\overline{AB}$ or "segment AB"
- The length of segment $\overline{AB}$: AB

Example 1: Construct an equilateral triangle XYZ so that each side is congruent to $\overline{AB}$.



STEPS

1._____

2._____

3._____

4._____

5._____

6._____

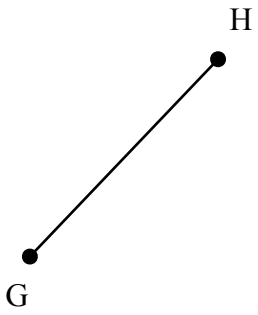
Name: _____

Date: _____ Period: _____

Construct Equilateral Triangle

Module 1: Lesson 1 Classwork

1. Construct an equilateral triangle CAT so that each side is congruent to $\overline{GH}$.



List the steps used to construct equilateral triangle CAT.

_____

_____

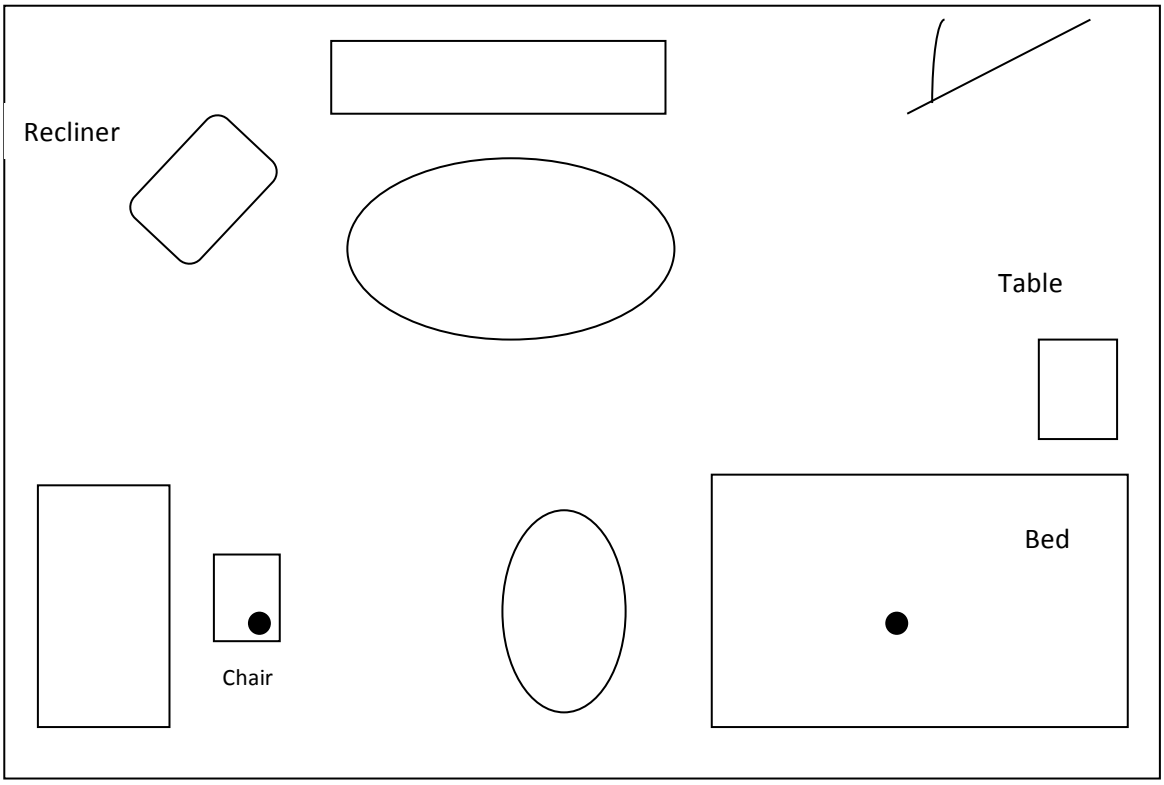
_____

_____

_____

_____

2. Margie has three cats. She has heard that cats in a room position themselves at equal distances from one another and wants to test that theory. Margie notices that Simon, her tabby cat, is in the center of her bed (at **S**), while JoJo, her Siamese, is lying on her desk chair (at **J**). If the theory is true, where will she find Mack, her calico cat? Use the scale drawing of Margie's room shown below, together with (**only**) a compass and straightedge. Place an **M** where Mack will be if the theory is true.



Name: _____ Construct Equilateral Triangle

Date: _____ Period: _____ Module 1: Lesson 1 EXTRA notes

1. Construct an equilateral triangle ABC so that each side is congruent to *DE*.

List the steps used to construct equilateral triangle ABC.

_____

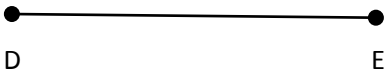
_____

_____

_____

_____

_____



Exploratory Challenge 1

Using the skills you have practiced, construct **three** equilateral triangles, where the first and second triangles share a common side, and the second and third triangles share a common side. (*Since no length was given, YOU get to determine the length of the sides of the triangles)

List the steps used to make your construction.

_____

_____

_____

_____

_____

_____