**Giving Directions I**

In the space below, use your ruler and protractor to draw a single figure that has all of the following properties:

• The figure is composed of between 4 and 6 lines, rays or segments. (Make sure to label points with letters)

• The figure includes at least one right angle.

• The figure includes at least one obtuse angle.

• No part of the figure is completely disconnected from the rest.

• The figure encloses some area.

Below or on the reverse write directions that would tell someone how to draw your figure without having seen it. Consider using some of the sentence frames provided and the word bank to help you write your directions. Also make sure to label you vertices with letters!

**My Creation**

**Word Bank**

Parallel Acute

Perpendicular Obtuse

Line Right

Line Segment Intersecting

Ray Angle

Point Degree

Vertical CM/ Inch

Horizontal Vertex

**Sentence Frames:**

Draw a \_\_\_\_\_\_\_\_\_\_\_\_\_ line \_\_\_\_\_\_\_\_ cm long.

Label this point \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

From \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, draw \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Directions for making my figure.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Teacher Directions**

**Materials:**

* 1 ruler and 1 protractor per student
* 2-3 sheets of blank paper per student.

**Part 1**: Model giving directions

* Pass out a ruler, protractor and sheet of paper to each student. Explain that you will be giving directions that they must follow perfectly to try to create the figure you have.
* Tell them to start near the bottom of their page a draw a line segment parallel to the bottom of the paper that is 14 CM long. Tell them to label the left end point, “Point A” and the right end point, “Point B”. Tell them to begin at point A and draw a line 14 CM long so that it creates a 60 degree angle with point A and goes up towards the top center of the paper. Ask them to label this new end point, “Point C”. Then tell them to begin at point B and draw a line segment to connect point B to Point C. Have each student show you their picture (it should be an equilateral triangle with 14 cm sides).

**Part 2:** Students create their picture

* Go over the directions for the activity. Quiz the students to make sure they know which of the “rules” you followed and which you did not include (such as the right angle). Make sure they understand the parameters.
* Give students 10 minutes to create their figure followed by another 10 minutes to write their directions.

**Part 3:** Students share directions.

* For this part of the lesson, you can choose to have a student come give directions to the entire class, or a student in each group can give directions to the rest of his/her group OR partners can give directions to one another. Regardless of the method you choose, be listening for and supporting correct academic language and use of tools.