| Geometry Local Lom      |                               | Date <u>2/1</u> | due <u>2/2</u>   | Constructing Triangles 8.1L   |
|-------------------------|-------------------------------|-----------------|------------------|---|
| DO NOW – On the         | back of this packet           | Nar<br>L        | O: I can use a   | compass to locate points that are<br>ances from other points to construct a |
| $\Box$ (1) Locating par | <b>ticular points, part 1</b> | sides we        | a need to locate | specific points that we can   |

[\_] (a) A triangle has \_\_\_\_\_ sides. To draw \_\_\_\_\_ sides, we need to locate \_\_\_\_\_ specific points that we can connect to make the sides. In the space below, mark and label points A, B, and C, and connect them to make a triangle.

| Locating particular points, part 2  | •          |
|---|------------|
| same?How did you check?   |            |
| (b) Compare your triangle to the triangles made by others in your group. Are the triangles all ex | xactly the |

| (2)   | Locating particular points, part 2                                  |   | ●<br>A | Č |
|-------|---|---|--------|---|
| ruler | (a) <b>Draw</b> a triangle with the lengths at right.               |   | •      | • |
|       | Use a ruler to measure and draw each side of triangle ABC precisely | • | В      |   |
|       | the length of the segments at right.                                | Â |        | B |
|       |   |   |        |   |

 $\square$  (b) Check to make sure each side is <u>exactly</u> the length it is supposed to be.

(c) Did all of the sides line up right the first time?\_\_\_\_\_ Did you have to erase or redraw any sides?\_\_\_\_\_

(d) Compare your triangle to the triangles made by others in your group. Are the triangles all exactly the

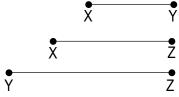
same? \_\_\_\_\_How do you know:\_

| 3)  | Locating particular points, part 3  |
|-----|---|
| iss | (a) <b>Construct</b> triangle ABC using the 3 distances:  |
|     | Points A and B have been located and connected for you.<br>You must locate C. DO NOT measure with numbers, just slide your compass. |
|     |   |
|     | A B   |
|     |   |
|     | Think:  |
|     | (b) Predict: In what region will C be located? LIGHTLY shade the region you predict with pencil.                                    |
|     | How can I show ALL of the points that are the distance AC from point A in that region?<br>(highlight them pink)                     |
|     | How can I show ALL of the points that are the distance BC from point B in that region?<br>(highlight them yellow)                   |
|     | (c) Based on your work in part (b), where must point C be located? Describe below and mark point C on you                           |
|     | diagram.  |

| (4)     | Construct a triangle by locating points   | Ŷ |        | P      |
|---------|---|---|--------|--------|
| compass | Construct triangle YUP by using the 3 distances:<br>Start by drawing a line segment and making it the length of YP. |   | •<br>Y | •<br>U |
|         | Then, use the process from #3 above to complete the triangle.   |   | Ů      | •<br>P |

| (5)                                     | (5) The power of the compass  |  |  |  |  |  |
|---|---|--|--|--|--|--|
|   | The compass makes it possible for us to see of the points that are a specific distance from another point.  |  |  |  |  |  |
|   | To find a point that is both a desired distance from point A and a desired distance from point B, we construct  |  |  |  |  |  |
|   | and mark the point where they   |  |  |  |  |  |
| (6)                                     | Exit Ticket   |  |  |  |  |  |
|   | ON THE LAST PAGE  |  |  |  |  |  |
| (6)<br>notes, pink<br>& green<br>sheets | <ul> <li>HOMEWORK:</li> <li>(1) Study for the quiz tomorrow by:</li> <li>(1) Rereading the classroom expectations and procedures</li> <li>(2) Drawing lines, line segments, rays, and planes and using your notes to name each one with proper notation</li> <li>(3) Using a compass to construct all of the points that are the same distance from a point</li> <li>(4) Using a compass to construct a triangle from given lengths.</li> <li>(5) Reviewing how to keep your brain healthy</li> </ul> |  |  |  |  |  |
|   | (0) One structure de VO(7 value de la sete estricte   |  |  |  |  |  |

(2) Construct triangle XYZ using the lengths at right:

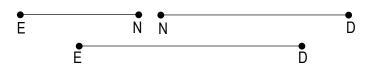


Practice using a compass in the space below. Make circles until it is easy to use your compass.

| Exit Ticket | Name | Date | _ Per | 8.1L |
|-------------|------|------|-------|------|
| Exit Ticket |      |      |       |      |

(1) The LO (Learning Outcomes) are written below your name on the front of this packet. Demonstrate your achievement of these outcomes by doing the following:

Construct Triangle END with the lengths at right.



5

| DO NOW | Name | Date | Per |  |
|--------|------|------|-----|--|
|--------|------|------|-----|--|

(1) Compare and contrast the qualities of lines, line segments, and rays.

(Describe how they are alike and how they are different.)

Show all of the points that are the same distance from L as J is from  ${\sf K}$ 

L .



(3) How Many Triangles?

