**Geometry Lesson 1-2 Objective: Students will take measurements with a ruler, a compass, and a protractor; students will also copy segments and angles.**

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**[1st] Fill in the missing**

**letters for this unit D \_\_ G \_\_ \_\_ \_\_**

**of measure:**

**GEOMETRY NOTES 1-2: Using a Ruler, Compass and Protractor**

$\overbar{YZ}$ **is** $\frac{15}{16}$ **inch long. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Y Z**

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **A B**

**[2nd] How long is** $\overbar{AB}$ **? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **C D**

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**[3rd] How long is** $\overbar{CD}?$

**[4th] How many increments**

**are there from 0 to 1 inch?**

**How does this affect the way**

**we measure with inches?**

**[5th] With your own ruler,**

**draw a segment that is**

**2** $\frac{3}{4}$ **inches long.**

**[6th] With your ruler, draw a**

**segment that is 1** $\frac{7}{8}$ **inches long.**

**[7th] Use your compass to copy** $\overbar{AB}$**,** $\overbar{CD}$**, and** $\overbar{YZ}$**.**

**For each segment, center your EXAMPLE: Original Copy**

**compass at one endpoint and**

**set the pencil point on the other**

**endpoint; then transfer that**

**distance to your own drawing area.**

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**[8th] Copy / BAC: NOTICE that AB < AC.**

To do this, **first** plot a point on your paper. Call it A. (This will be

the vertex of your angle). **Second**, use your compass to measure

the distance on this sheet from A to B. Copy $\overbar{AB}$ onto your paper.

 Make $\hat{AB}$ fairly long. **Third**, with your compass, measure the

Distance from B to line $\overleftrightarrow{AC}$. Mark this distance on your drawing.

 Label D where the two arcs meet. Then connect A and D.

 FIRST SECOND THIRD FOURTH





**Examine circles A,B, and C.**

**B and C are on circle A.**

**C is on circle B and B**

**is on circle C.**

**D is on circles B and C.**

**[9th] Which is closer to A,**

**B or C? \*\*Explain what**

**this means for** $\overbar{AB}$ **and** $\overbar{AC}$**.**

**[10th] Which is closer to D,**

**B or C? \*\*Explain what this**

**means if you draw** $\overbar{BD}$ **and** $\overbar{CD}$**.**

**[11th] If you draw** $\vec{AD}$**, which angle**

 **will be wider, / BAD or / CAD?**

**🡪We can use the above construction**

**to do what with / BAC?**

**[12th] Find the measure of**

**each angle in degrees:**

**/ APB**

**/ CPB**

**/ APC**