**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**September 9th, 2011**

**Geometry, Mrs. Sulkes**

**10-1 Construction**

**Congruent Segments and Congruent Angles**

Constructions: Read p. 375 “What Construction Means”.

What does construction mean in geometry?

***Construction 1:*** Given a segment, construct a segment congruent to the given segment.

Example: Given 

B

A

Construct a segment congruent to 

Steps:

* Use a straightedge to draw a line. Label it *l*. Choose any point on *l* and label it X.
* Open the compass to radius AB.
* Place the metal tip on X, and draw an arc intersecting line *l.* Label the intersection Y. Check  by measuring with your ruler.

***Construction 2***: Given an angle, construct an angle congruent to the given angle.

A

Example: Given 

B

C

Construct an angle congruent to .

Steps:

* Draw a ray and label it .
* Using B as the center and any convenient radius, draw an arc intersecting ray BA at D and ray BC at E.
* Draw an arc with center R and radius BD that intersects at S.
* Draw an arc with center S and radius DE that intersects the first arc at T.
* Check that  by measuring with a protractor.

**Your Turn:**

On a separate sheet of paper, complete p. 378 #1 – 4, and 11 – 12 . Show all your markings that you used to construct the segments and angles.