## CONSTRUCTING CONGRUENT ANGLES STEPS

Step 1: Draw a new line with endpoint $\boldsymbol{m}$.


Step 2: Place your compass point on the vertex of the original angle.

- Carefully swipe across your angle with the pencil, keeping the point of the compass on the vertex.
- Label the intersections of the swipe and angle points $\boldsymbol{A}$ and $\boldsymbol{C}$
- DO NOT CHANGE YOUR COMPASS SETTINGS! (Do not open or close it)


Step 3: Using the same settings for your compass as step 2, place the point of the compass on point $\boldsymbol{m}$ on your line from step 1.

- Make a swipe a little longer than the one from step 2.
- Label the intersection of the swipe and line as $\boldsymbol{n}$


Step 4: Open your compass point and pencil from point A to point $\mathbf{C}$.


Step 5: USING THE SAME COMPASS SETTINGS AS STEP 4, place the point of the compass on $\boldsymbol{n}$.

- Swipe your pencil to intersect your swipe from Step 3.
- Label the intersection point $\boldsymbol{L}$.


Step 6: Connect $\mathbf{m}$ to $\mathbf{L}$ using a straight edge.


Step 7: Measure each angle to check congruence.

