Investigation #8 Segments of Central Angles Geometry Mrs. Ledford

Step 1: Open GeoGebra and hide the axes.

Step 2: Create a line through A and B

Step 3: Place a point of intersection C on the line f (AB) on the other side of the circle from B.

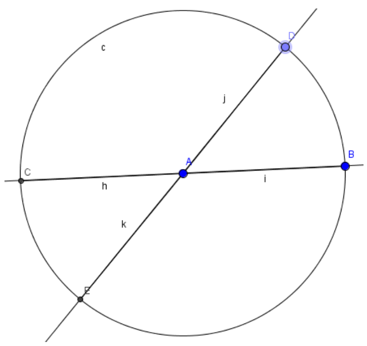
Step 4: Place a point D anywhere on the circle.

Step 5: Create a line through A and D

Step 6: Place a point of intersection E and the line g (AD) on the other side of the circle from D.

Step 7: Create segments *h*(CA), *i*(AB), *k*(EA), and *j*(AD).

Your construction should now look like this:



Look at the lengths of the segments *h, i, j*, and *k* in the Algebra window at the left of your construction (in the graphics window). What do you notice? ___________________________

Move the points A, B, or C around. What do you notice about *h,I,j,* and *k* now?

Compare your results with the results of others near you.

Your next conjecture could be: **The <u>segments of central angles</u> of a circle are ______________________.**