

Name: _____ (Remember: Edit, Preferences, Units, Tenths, Tenths, Check New Sketches)

Geometer's Sketchpad Activity – Making Circle Graphs

You will need a calculator for this activity!

Task #1

Create a circle graph using data collected about favorite shades of blue.

Find the degrees for each part. (Round to the nearest whole degree)

Navy: $48\% \text{ of } 360^\circ = 0.48 \cdot 360^\circ \approx 173^\circ$

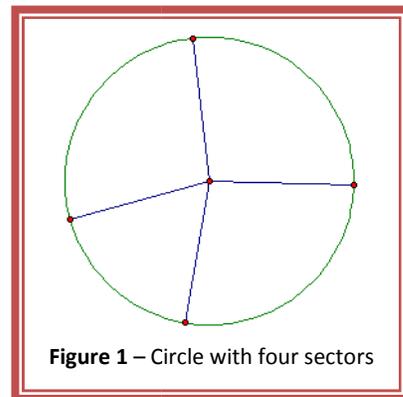
Sky Blue: _____ 

Aquamarine: _____ 

Other: _____ 

Favorite Shades of Blue for People Ages 21 to 34	
Shade	Percent
Navy	48%
Sky Blue	23%
Aquamarine	12%
Other	17%

Using Sketchpad, create a circle. After creating the circle, make sure that you do not have anything selected. Click on the point on the circle (not the center point). Then click on "Display" and "Hide Point." Now you are ready to create sectors, which are sections of the circle. Since there are four categories, create four radii, which are segments that connect the center point and a point on the circle (See Figure 1). 



Each sector will represent a favorite shade of blue. You will now need to measure the four angles created. Remember that when measuring an angle, select the vertex second. Adjust each of the angles until they equal the calculated degrees found up above.

You now need to shade in each sector. Create a point on the circle between two points that are part of radii. Select the three points, then click on "Construct" then "Arc through 3 Points." Make sure the arc is selected, then click on "Construct" then "Arc Interior" then "Arc Sector." Repeat this process until all sectors are shaded. Change the color of each sector and hide all points, segments, arcs, and the circle.

Now we want to finish out our circle graph. Our circle graph needs a title and labels for each of the sectors. 

Task #2

Start a new sketch. Create a circle graph using data collected about U.S. region populations.

Find the total population: _____ 

Find the ratio that compares each number with the total. Write the ratio as a decimal number rounded to the nearest hundredth.

Northwest: $\frac{54}{281} \approx 0.19$ (or 19%) Midwest: _____

South: _____ West: _____ 

Finish the circle graph. Use information from the first exercise to help. 

U.S. Regions	Population (Millions)
Northwest	54
Midwest	64
South	100
West	63