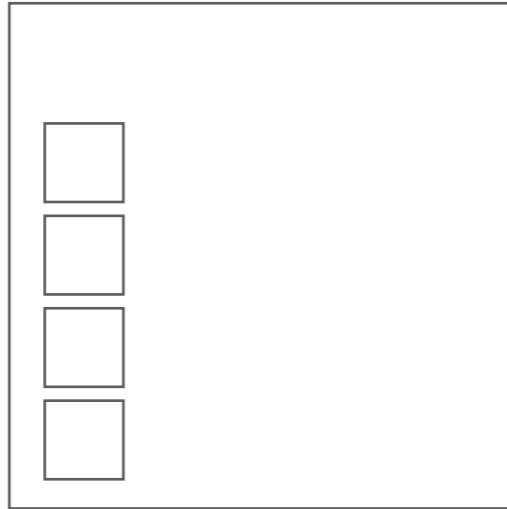




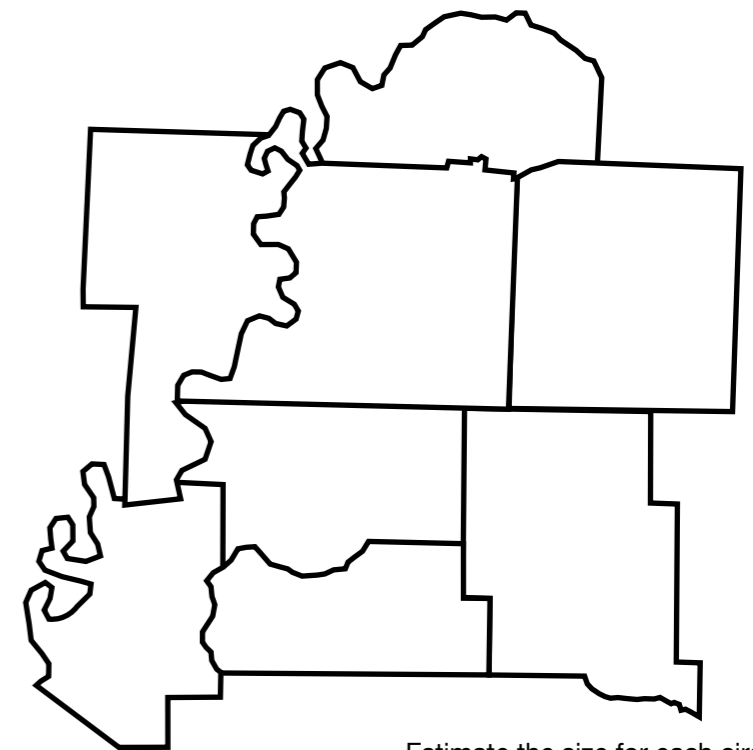
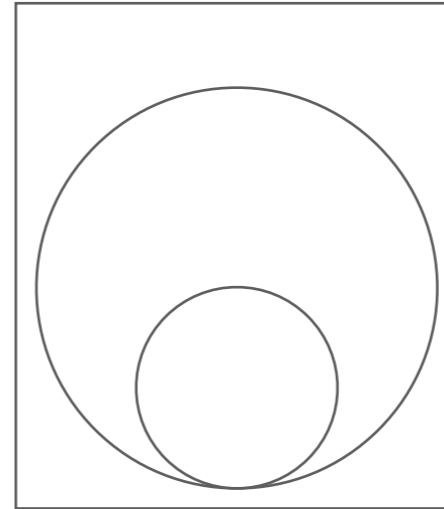
Creating Four Thematic Maps for the Memphis, Tennessee Metropolitan Statistical Area

Choropleth | Graduated Symbol | Dot | Cartogram

CHOROPLETH




GRADUATED SYMBOL

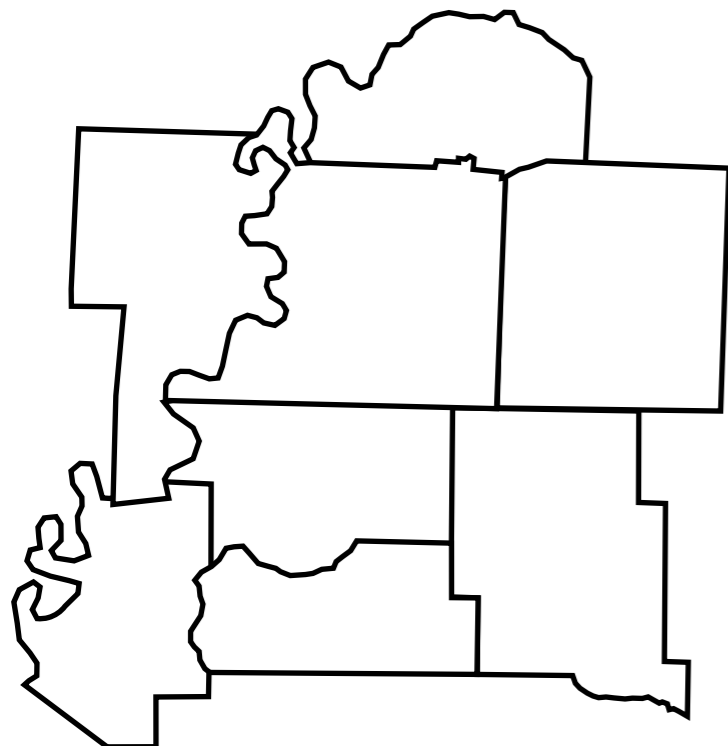


Estimate the size for each circle.

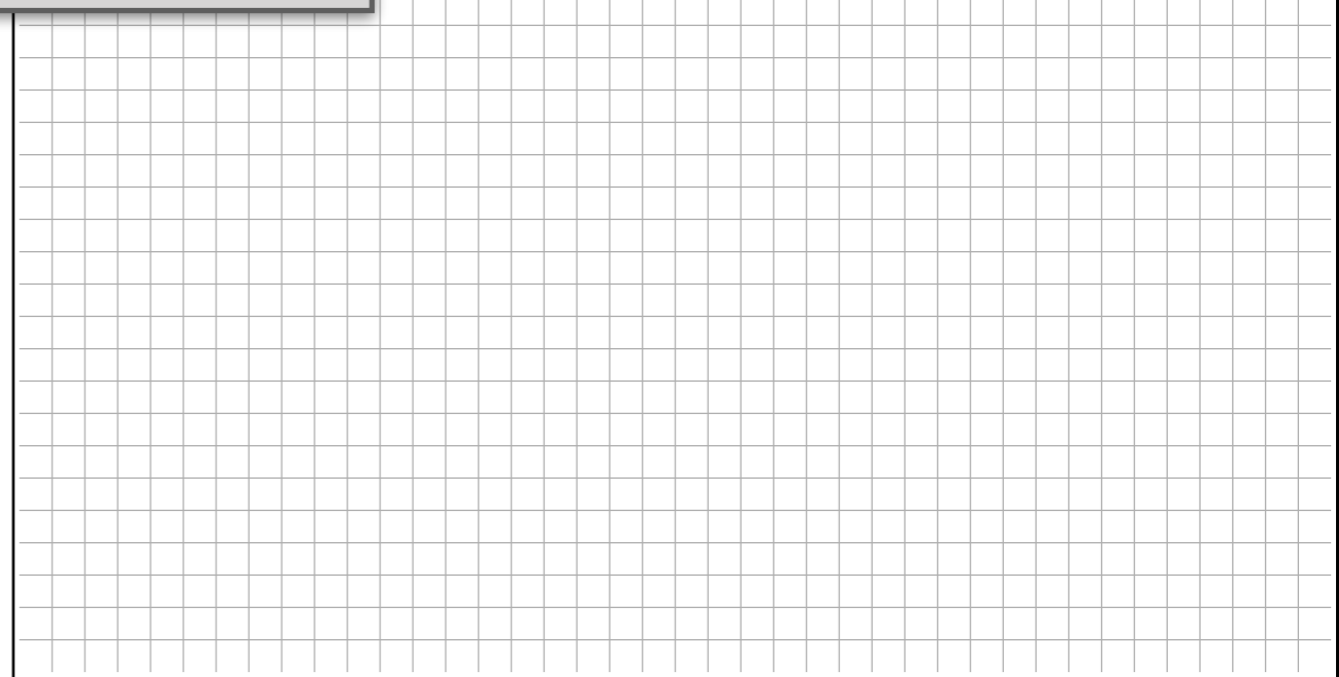
Memphis MSA

 Counties	Population 2015	Percent %
Total Population	1,344,127	100.0
Crittenden, AR	48,963	3.6
DeSoto, MS	173,323	12.9
Marshall, MS	35,916	2.7
Tate, MS	28,296	2.1
Tunica, MS	10,343	0.8
Fayette, TN	39,165	2.9
Shelby, TN	938,069	69.8
Tipton, TN	61,870	4.6

DOT



CARTOGRAM





Directions

CHOROPLETH



Add Title

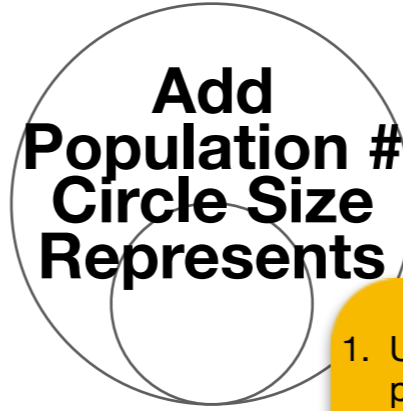
Add Population Categories

Directions

- Using the *Memphis MSA chart*, determine four categories for the Choropleth map and write the categories in the legend box.
- Give a title for the legend.
- Choose a color scheme from dark to light shades of the same color.
- Color each county according to the legend categories you determined.

GRADUATED SYMBOL


Add Title



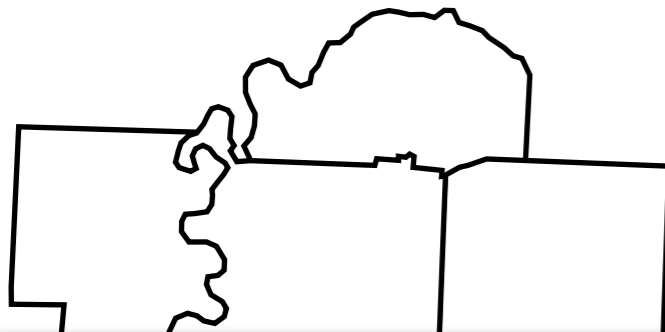
Directions

- Using the *Memphis MSA chart*, determine how many people the two circles on the left represent and write the number in the legend box.
- Give a title for the legend.
- Determine the approximate size of the circle for each county. The largest circle should fit on the map.
- Draw the circle for each county. The circles can be rough estimates and hand drawn.
- Draw largest circles first.

Memphis MSA

 Counties	Population 2015	Percent %
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Tipton, TN	61,870	4.6

DOT



Directions

- Using the *Memphis MSA chart*, determine how many people the black dot will represent. This will require dividing the county's total population by the number of people the dot will represent. Be sure the number is reasonable (over 1,000 for certain).
- Write the number the dot will represent in the legend box next to the black dot.
- Draw in each county the correct number of dots. It does not have to perfectly drawn circle dots.

Population #
Each Dot
Represents

CARTOGRAM



Population #
Each Box
Represents

Directions

- Using the *Memphis MSA chart*, determine how many people the black box will represent and write it in the legend box (in the thousands).
- Determine how many boxes each county should have (be sure all the counties will fit on the graph).
- Start in the middle of the graph paper with drawing the largest county first.
- Attempt to make the counties look as close as possible to their actual shapes.



Ranking the Maps

DIRECTIONS: Rank order the four maps with 1 being the most effective map to show the population for each county and 4 being the least effective map to show population for each county. Give an explanation for each of your rankings.

Map	Ranking	Explanation for Ranking
<p><i>Choropleth</i></p>  <p>The map is titled 'CHOROPLETH'. The legend indicates four population density categories: 1000-1500/MI² (darkest blue), 1500-2000/MI² (medium-dark blue), 2000-2500/MI² (medium-light blue), and 2500-3000/MI² (lightest blue). The map shows the highest density in the central region.</p>		
<p><i>Graduated Circle</i></p>  <p>The map is titled 'GRADUATED SYMBOL'. The legend shows two circle sizes representing population: 100,000 (larger circle) and 1,000 (smaller circle). The map shows a large circle in the central region and smaller circles elsewhere.</p>		
<p><i>Dot</i></p>  <p>The map is titled 'DOT'. The legend shows a dot representing 100,000 people. The map shows a high density of dots in the central region and fewer dots elsewhere.</p>		
<p><i>Cartogram</i></p>  <p>The map is titled 'CARTOGRAM'. The legend shows a scale of 1:1,000,000. The map shows the relative size of each county proportional to its population, with the largest county being significantly larger than the others.</p>		