1. Go to http://www.google.com/publicdata/directory. Select U.S. Census Bureau on the left. Then click Population in the U.S.

2. Click Explore the data. A line graph of the population of the United States from 1980 to 2011 is displayed. Roll your mouse over a point on the graph to view the population for a specific time.

3. Find the population of the United States for July 1980 and for July 2011. Write the ordered pairs which correspond to these two data points, where \( x \) is the years after 1980 and \( y \) is the population in millions.

4. Find the slope of the line between the two points you found in step 3. Interpret the meaning of the slope in the context of the problem.

5. Assuming the population of the United States grows linearly, write a linear function, \( p(x) \), that represents the population of the United States (in millions) \( x \) years after 1980.

6. Find \( f(0) \) and interpret its meaning.

7. Find \( f(33) \) and interpret its meaning.

8. Repeat steps 4 – 7 for the state of Georgia. (Uncheck the box to the left of the United States and check the box to the left of Georgia.)

9. Repeat steps 4 – 7 for the county for which you reside. (Click the arrow to the left of Georgia and then place a check in the box to the left of the appropriate county.)

10. Which of the populations is growing most rapidly?