Population Growth Test

Over the course of history populations have typically increased, the interesting thing is where they are increasing. Population has some correlation with healthcare, education, war, and poverty. Which countries are growing the fastest?

Below is a table of a data that you need to complete after calculating best-fit functions. Use the table and your best fit functions to answer the questions.

Year	China	Nigeria	Peru	United Kingdom	United States
1980	981	75	17	56	227
1985	1051	85	20	56	238
1990	1135	97	22	57	250
1995	1205	110	24	58	266
2000	1262	125	26	59	282
2005	1304	141	28	60	296
2010	1331	155	29	62	307
2015					
2020					
2025					

Population (in millions)

1. Use a graphing calculator to create a scatterplot. Use a regression function to model the population growth of each country.

China –

Nigeria –

Peru –

United Kingdom –

United States -

2. Did you use the same type of regression for each country? Why or why not?

- 3. Using your functions, answer the following questions in complete sentences. (Justify your answers.)
 - a. When do you expect Nigeria to have a population in excess of 200 million?

b. Which country do you think will reach a population of 80 million first, Peru or United Kingdom? When do you expect this to happen?

c. In what year will China's population be greater than 2 billion?

4. If the trends continued at the same rate, would Nigeria's population surpass the United States? If so, when would this happen? Do you think this is realistic?

5. Do you believe your models would be a good predictor in the year...? Why or why not?

2012 -

2020 -

2040 -

2060 -