Math For Business Applications Spreadsheet Project 4

NOTE: Directions and files for download assume you are working with Microsoft Excel™ because that software is what the university provides to all students, faculty and staff. However, I encourage you to consider using the alternative and "Open Source" spreadsheet software made by Apache called OpenOffice Calc. Getting all of these activities converted into both platforms is a goal of mine. Any assistance would be appreciated.

Goal for this activity: The student will model with data using different types of equations for the model, and make a judgment regarding which model appears to be best.

For this activity you will need the USA population and GDP data spreadsheet with data provided. Part of this exercise is to select only the data that is relevant to the question being asked.

Sources of the data include: U.S. Census Bureau, data.worldbank.org, worldometers.info. Your task is to plot the YEAR versus TOTAL GDP (columns are highlighted in yellow).

Then, you get to decide if the data suggests a **polynomial (degree = 2)** model OR an **exponential** model of TOTAL GDP over time. Find out what the equation (trend line) of the quadratic is, and the trend line for the exponential function. Then ***use each to predict what the total GDP for the United States will be one year from now.***

Answer the following in a DISCUSSION board post:

1. Which model do you think is more appropriate and why?
2. Look at other columns of data. What might explain the decline in growth of GDP in 2020? Has the United States (mostly) recovered?
3. Is there other data you'd like to see that might correlate to GDP growth? If so, what specifically?