## Critically Examining National Debt

1. Find and graph the United States national debt over the past 30 years.
2. Choose a function that models that data and justify your choice.
3. What does your model predict for the next few years? For the next two decades?
4. Do you think the predictions will be accurate? Why or why not? What would you suggest the government do to reduce the growing debt?

## Critically Examining National Debt

1. Find and graph data for the U.S. debt every other year, from 1987 through 2017.
2. Do you think a linear model or an exponential model would be more appropriate for this data? Explain your reasoning and then find the appropriate model.
3. What does your model predict for the future? Do you think it will be accurate? Explain your reasoning.

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| year | debt (trillions) |
| :---: | :---: |
| 1987 | 2.4 |
| 1989 | 2.9 |
| 1991 | 3.7 |
| 1993 | 4.4 |
| 1995 | 5.0 |
| 1997 | 5.4 |
| 1999 | 5.7 |
| 2001 | 5.8 |
| 2003 | 6.8 |
| 2005 | 7.9 |
| 2007 | 9.0 |
| 2009 | 11.9 |
| 2011 | 14.8 |
| 2013 | 16.7 |
| 2015 | 18.1 |
| 2017 | 20.2 |
|  |  |

1. Plot the U.S. national debt for every other year from 1987 through 2017.
2. Explain why a linear model does not fit the data well.
3. Find an exponential model that you think models the data well.
4. What does your model predict for the future? Do you think it will be accurate? Explain your reasoning.
