Critically Examining National Debt

Task Statement 1

1. Find and graph the United States national debt over the past 36 years.
2. Choose a function that models the 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?

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Task Statement 2

1. Find and graph data for the U.S. national debt every other year, from 1987 through 2023.
2. Do you think a linear model or an exponential model is 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 prove accurate? Explain your reasoning.

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Task Statement 3

1. Plot the U.S. national debt for every other year from 1987 through 2023.
2. Explain why a linear model is not a good fit for the data.
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 prove accurate? Explain your reasoning.

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
2019	22.7
2021	29.6
2023	33.7