

Unit 3 Part 1 - Relations

2.4 - Trends, Interpolation and Extrapolation

Learning Goal:

You will identify trends in graphs, and use interpolation or extrapolation to make predictions



Trends, Interpolation, and Extrapolation

For a science project, Audrey recorded the minimum temperatures in her backyard for the first 10 days in March.

Day	Min Temp (C)
1	-9
2	-6
3	-3
4	-5
5	-4
6	-1
7	0
8	-1
9	2
10	3

What does the horizontal axis represent? What does the vertical axis represent?

Make a scatter plot on a sheet of graph paper or using DESMOS.

Describe the trend.

Can you use the trend to predict the min temp on March 11?

Describe how you could estimate the min temp on February 26th.

Graphs can help you recognize trends(or patterns) in a set of data. If you find a trend, you can use it to predict values of the variables.

Interpolate: estimate a value between twomeasurements in a set of data

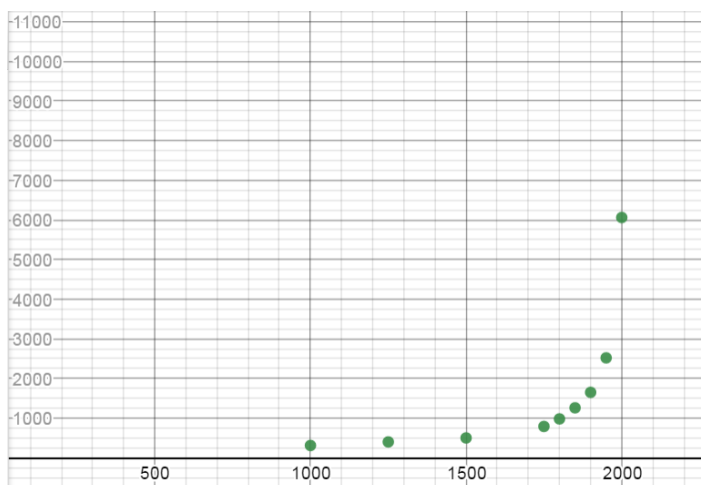
Extrapolate: estimate a value beyond the range of a set of data

Ex. This table lists the estimated population of the world over the last 1000 years.

Year	Population (millions)
1,000	310
1,250	400
1,500	500
1,750	790
1,800	980
1,850	1,260
1,900	1,650
1,950	2,520
2,000	6,060

Use DESMOS:

1. Make a scatter plot of the data.
2. Describe the trend in world population growth.
3. The United Nations predicts that the world population will stabilize at about 10 billion people around the year 2200. Does this prediction follow the trend shown in your graph? Explain.



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