



Climate

A Cooling Earth?

Problem Set

Problem 1: In the 'A Cooling Earth?' article, data from <http://data.giss.nasa.gov/gistemp/graphs/> is plotted to show that the trend of global temperature change is the same in the last 10 years and in the last 30 years ($\sim 0.16^\circ\text{C}/\text{yr}$). However, data is available from 1880.

- a) Create a plot from 1880 to the present and compare the slope of the graph to the slopes from the last decade and the last 30 years. Use the Global Annual Land and Ocean Surface Temperature Anomaly data, available in tabular form:
<http://data.giss.nasa.gov/gistemp/graphs/fig.A2.txt>
- b) If the slopes are not similar, try other mathematical forms to see which fit the best and observe how predications for 2030 and 2050 depend on what form you choose.

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