PRE LAB 2

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1

Construct the normal matrix to fit a line to the data. Create a plot of the data and your fit on the same graph. Using this model, estimate my typical speed on a 95 degree summer day.

A plot of the graph is included in the MatLab file. Using my best fit line, your typical speed when the temperature is 95 degrees is about 17 MPH

2

Construct the normal matrix to fit a parabola to the data. Create a plot of the data and your fit on the same graph. Using the model, estimate my typical speed on a 95 degree summer day.
A plot of the graph is included in the MatLab file. Using my best fit line, your typical speed when the temperature is 95 degrees is about 16.25 MPH

3

Discuss whether either of these predictions are meaningful.

These results give a good idea of the overall trend, but there are factors which reduce the meaningfulness of the best fit lines.

For example, each day there are traffic lights that you have to stop at, however it is not a guarantee that you will wait the same amount of time at traffic lights each day. Therefore it is possible that the collected data is being skewed from an external force. This can be applied to other factors as well such as construction, accidents, detours, etc.