

**PROBLEM-OF-THE-DAY: ALGEBRA 1****WEEK:** December 10 to December 14      **Day:** Monday

**RISD Objective:** Given a scatter plot, students will be able to determine the correlation, draw a line of best fit, and use it to make a prediction.

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**PROBLEM #73**

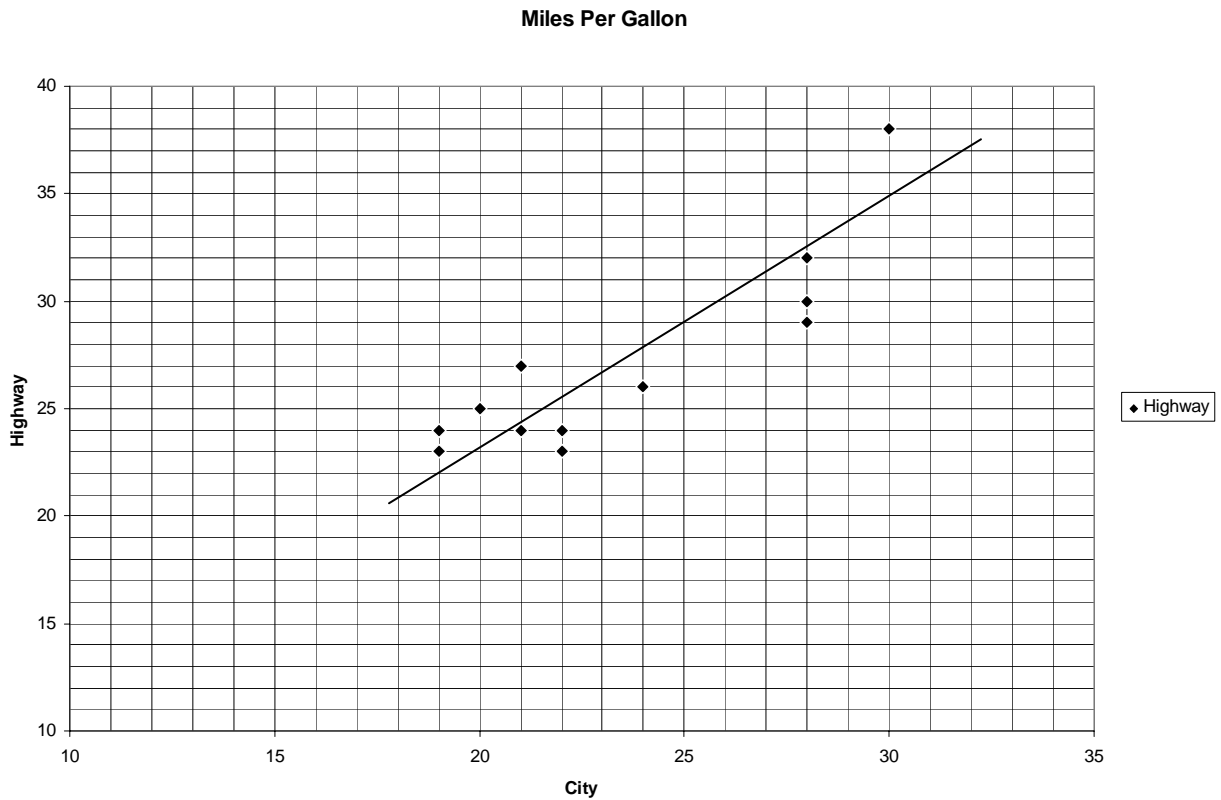
Twelve cars were road tested on both city streets and highways. The results are given in the scatter plot below (note this is zoomed in on a specific part of the graph).

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- a) Describe the correlation.
- b) Sketch the line of best fit.
- c) Using the line of best fit, what is a good estimate of miles per gallon on the highway for a car that gets 26 mpg in the city.

## MODEL SOLUTION #73

- a) Because the data set is closely grouped and tends to have a positive slope, this would be a strong positive correlation.



- b) A possible trend line is shown.
- c) A good estimate of miles per gallon on the highway for 26 mpg in the city would be 30 mpg.