

Please indicate your solutions clearly in the document using complete sentences and brief explanations. The point is that you indicate to me what the solution is and how it relates to the context of the question being asked. See the example spreadsheet I posted to the course website and the related video (<https://www.youtube.com/watch?v=1wNrxiceAiQ>) for details on what I consider good form.

Email your spreadsheet file to [amohr@nebrwesleyan.edu](mailto:amohr@nebrwesleyan.edu) by 4:00 am on the due date.

## Curve Fitting

Read the case study “Modeling Spending on Internet Advertising” at the end of Chapter 1 in the text and address the following points. You may find the video at <https://www.youtube.com/watch?v=1wNrxiceAiQ> helpful if you’re not familiar with Excel. (The steps are similar in other spreadsheet programs.)

1. Create a scatter plot using the data from the “Exercises” section at the end of the case study.
2. Fit a linear function to the scatter plot.
3. Display the equation and correlation coefficient (“R-squared value”) on the chart.
4. Title the chart and label both axes.
5. Make any aesthetic changes you think enhances the clarity of your data, such as changing the domain and range shown in your chart if either is too big.
6. Create a second scatterplot using the same data and repeat all these steps for a quadratic (polynomial order 2) function.
7. According to the correlation coefficient, which function is better for this data?
8. According to your model, what should the spending be in 2017?