Math 1230, Minitab Assignment. Due on February 25, 2016.

Collect data on two variables $x$ and $y$ that you think might be related. Please make sure that you have at least 10 different $(x, y)$ pairs. Using Minitab, complete each of the following.

1. By going to Graph - Scatterplot, create a scatterplot of $y$ versus $x$, and comment on what you see. Is there a relationship between $x$ and $y$? What kind of relationship is it?

2. By going to Stat - Regression - Fitted Line Plot, find the best fit line for predicting $y$ from $x$. Does the line seem to be a good fit for the data?

3. Using the best fit line, predict the $y$ value for some new $x$ value of your choice.

4. By going to Stat - Basic Statistics - Correlation, find the correlation between $x$ and $y$. Using this correlation value, find $R^2$, and write down an interpretation statement for $R^2$.

5. Turn in a short write-up that includes the following: (i) A description of what your $x$ and $y$ variables are. (ii) A full listing of your $x$ and $y$ pairs. (iii) A detailed description of where you obtained your $x$ and $y$ values. (iv) Answers to all of the questions in parts 1 to 4 above, along with the plots and Minitab output that you used to obtain those answers.

Accessing Minitab:

1. Go to vdesktop.villanova.edu.
2. Log in using your Villanova e-mail log-in and password.
3. Click on “Apps”.
4. Click on the folder for “Academic Apps”. (Be sure to click just once.)
5. Click on “Minitab 17”. The Minitab spreadsheet should then come up, and you can either type in or copy and paste your data values. Use one column for $x$ and another for $y$.
6. If you run into any difficulties accessing Minitab, please let me know.