

MATH 254 – Test 1 – Take-home part

All work on this take home part must be submitted electronically, with each Excel spreadsheet being submitted as a separate attachment. You must email your submission(s) to me at `stephenbrill@yahoo.com`, *not* by BSU email address, so that I receive it no later than 1140 on Wednesday, 24 September 2008. GOOD LUCK!

1) (10 points) Go to the class web page and download the file that contains the scores (from 0 to 100) of my students on their first test. Let x be a particular student's score. If $90 \leq x \leq 100$, the student earns an "A". If $80 \leq x < 90$, the student earns a "B". If $70 \leq x < 80$, the student earns a "C". If $60 \leq x < 70$, the student earns a "D". If $x < 60$, the student earns an "F". Using Excel, make a bar chart showing the grades A, B, C, D, and F on the horizontal axis and the number of students receiving each of these grades on the vertical axis. Is this bar chart a histogram? Explain.

2) (10 points) Consider the data set for Exercise 2.41 on page 107.

a) Which variable should be the explanatory variable and which should be the response variable?

b) Make a scatterplot for this data set.

c) Discuss form, direction, and strength of the relationship between the variables.

d) Do the variables have a positive or negative association? Explain.