

The homework is due Monday 2/16. The lab is due in your lab on 2/11 or 2/13.

Lab #3 to be done in the computer lab on 2/11 or 2/13

Place your name on an otherwise blank tab and turn the file in on Moodle. All of your answers must be on the computer file turned in. Failure to follow these instructions will cost you a point.

- 1) (20 points) For the tab, Question 1, plot a scatter diagram of the data. Make sure the graph is fully labeled. What can you deduct from this graph? Explain your logic in a textbox in the file.
- 2) (20 points) Have the computer generate a histogram for the data on the tab Question 2. Have the groupings be units of 5. Have the computer calculate the descriptive statistics.
- 3) (10 points) In creating the descriptive statistics, we sometimes change the “largest K” and “smallest K.” If we were using a data set with 400 data points and wanted to find quartiles, what would you use for K? Why would we want to use quartiles? Answer that last question in a textbox in the file.

Homework #2 Due 2/16

Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

- 1) (20 points) Explain the difference between doing research in a lab and doing a simulation. Which one is better depends upon the specific case. Which do you think is better for developing a new computer game? Explain your logic.
- 2) (10 points) What is meant by an “exploratory study” and why is it normally a predominately qualitative study? Explain your logic.
- 3) (10 points) What do you feel is the greatest advantage of a *qualitative* study over a *quantitative* study? Explain your logic.
- 4) (10 points) Briefly explain Mill’s Method of Difference. Explain why that method will give a logical conclusion.