

Statistics 4590
Assignment #1: Jan. 21, 2010
Due Date: Feb. 2, 2010

All problem numbers are from the textbook *The Statistical Sleuth, second edition* by Ramsey and Schafer.

Unless specified, the choice of statistical software package to use is up to you. Make sure to submit the relevant output with your assignment, and clearly label material on this output.

Your assignments will be graded both on your statistical analysis and its presentation. Where appropriate, make sure that you explain your analysis clearly, what is the question of interest you are trying to answer, the conclusions in the context of the problem, and the scope of your inference. Poor grammar will have an adverse effect on your grade!

1. Problem #7. page 23.
2. Problem #11, page 23.
3. Refer to #21, pages 52–53. Use the information in this problem to assess if the average weight of the surviving males was less than 25 g. As stated in #21, write a summary statistical report, including any helpful graphs. What inferences are possible?
4. Problem #22, page 53.
5. People who live in homes with more than three bathrooms (what I dream!) tend to have higher blood pressure than people who live in homes with three or fewer bathrooms.
 - (a) Can we establish that more bathrooms cause high blood pressure? Explain why or why not.
 - (b) Could any confounding variables be responsible for the effect that we are observing?