

Probability and Statistics II  
GSIA, Carnegie Mellon University  
45-734, Spring 2002

Homework #3, due Tuesday, April 9, 2002

**Please attach relevant eview output to your assignment!**

Please do the following problems from the book:

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Also, please use the auto data to construct a model of auto pricing. Suppose you think price is a function of size of car (proxied by weight), fuel efficiency, and quality (proxied by consumer reports reliability)

Throughout, be clear what you are assuming.

1. Test at the 5% level the hypothesis that size does not affect price
2. Test at the 10% level the hypothesis that neither efficiency nor quality affect price
3. Make a 90% confidence interval for the effect of one extra lb on price.
4. Test at the 1% level the hypothesis that none of these factors affect price
5. Test at the 1% level that the a one point increase in reliability is equivalent to a 400lb increase in size, in terms of its effect on price.