\*\*: We want to determine the factors that affect selling prices of Ford Mustangs. The statistical analysis of the data involves hypothesis testing and multiple-regression analysis.

Analyses that you'll want to do are:

1. Test the hypothesis that mean price does not depend on whether the car is a convertible. (Interpret your answer in nontechnical terms for "Tom".) Then, perform the same hypothesis for transmission type, presence or absence of air conditioning, GT model or not, and private versus dealer ownership.
2. Perform a hypothesis test that mean selling price does not vary with color.
3. Find a reasonable multiple regression model of PRICE on the other variables available in the data set. (Which variables are significant, which are not? How do the significant variables affect the PRICE?)

You will want to prepare a report of your findings to present to Tom. Show him how he could use your information to set prices on other cars in the near future.

Part One - Executive Summary. (2 paragraphs)

a. State the research problem briefly (what the client wants to know) - one paragraph

b. Briefly summarize what your analysis reveals about the research problem - one paragraph

Part Two - Methodology (3 paragraphs)

a. Summarize the key facts of the case including a description of the dataset (number of cases, what the independent variables are and what the dependent variable is, whether the data are a sample or a population.

b. Describe in very plain language the descriptive and inferential analytical techniques you will use to analyze the data.

c. Describe any potential limitations to your analysis, such as any data anomalies you have detected and how you intend to treat them in your analysis.

Part Three - Findings (Present the numbers in this section and what they mean in the next section)

a. Report descriptive statistics using tables and text in at least one paragraph

b. Report inferential statistics using tables and text - you will need two paragraphs to do a good job of this

NOTE: DO NOT present Minitab outputs in the text section of your report but DO refer the reader to the appendix if he or she should wish to view them.

Part Four - Interpretations and Conclusions (three paragraphs)

a. Interpretations subsection. Tell the client what the numbers your derived from the use of descriptive and inferential statistics mean, in very plain language. Do a separate paragraph for each analytical technique - at least two paragraphs of tables and text

b. Conclusions subsection. Answer the research question (what the client wants to know). Also summarize the key results and add them to part b of your Executive Summary

References Cited Section (any external references you consult for statistical or methodological guidance need to be cited)

Appendices Section (your Minitab output, with annotations if you chose to include them) DO NOT include the raw dataset.