

<b>HOMEWORK ASSIGNMENT 7</b>		Assigned: December 1, 2005
		Due: December 8, 2005
		10 Points – 1 point each day late

**All data is in "<http://www.stat.lsu.edu/EXSTWeb/statlab/datasets/KNNLdata/>".**

**Do the “car purchase” example from your text book. The dataset is in CH14PR13.**

A) 14.12 (14.10)	<p>a) Find the maximum likelihood estimates of <math>\beta_0</math>, <math>\beta_1</math> and <math>\beta_2</math>.</p> <p>b) Get the odds ratios for <math>b_1</math> and <math>b_2</math> (i.e. <math>\exp(b_1)</math> and <math>\exp(b_2)</math>). Interpret these values.</p> <p>c) What is the estimated probability that a family with an income of \$50,000 and a car that is 3-years old will purchase a new car?</p>
B) 14.19 (14.16)	<p>a) omit</p> <p>b) Use a Wald test to determine if the variable for age of the oldest automobile can be dropped from the model.</p> <p>c) Use a likelihood ratio test to determine if the variable for age of the oldest automobile can be dropped from the model.</p>
C)	<p>a) include the options “/ <code>lackfit rsq iplots</code>” on your model statement. Report the “Max-rescaled R-Square” and the “Hosmer and Lemeshow Goodness-of-Fit” test.</p> <p>b) You do not need to specify HTML output to get the diagnostic plots. State which observations had the greatest deviation values for residuals and hat diag.</p>