**Statistics Final Exam**

**Regression Analysis Problem: Please turn in your regression output with this completed form.**

Refer to the Baseball-08 data (download from moodle), which reports information on the 2010 Major League Baseball season. Let the games won be the dependent variable and total team payroll, in millions of dollars, be the independent variable. Determine the regression equation and answer the following questions.

1. Use Excel to create an XY scatter diagram. From the diagram, does there seem to be a direct relationship between the two variables?
2. How many wins would you estimate with a payroll of $100.0 million?
3. Estimate a 99% prediction interval about the average number of wins for a team with a $100 million payroll.
4. How many additional wins will an additional $5 million in payroll bring?
5. At the .05 significance level, can we conclude that the slope of the regression line is positive? Conduct the appropriate test of hypothesis.
6. What percentage of the variation in wins is accounted for by payroll?