**Interpreting Regression Analysis Results**

The summary statistics for the model fit, including root mean square error and RSquare, are reported in the Summary of Fit table. Our root mean square error is 1.7, and RSquare is 0.64. Thus, ID explains 64% of the variation in Removal. The overall test results for the significance of the model are reported in the ANOVA table. The p-value is very small, so we can conclude that the model is significant.

The estimated intercept and slope coefficients for this model are reported in the Parameter Estimates table under Estimate.

By using the model to predict the average Removal for different values of ID. As we have seen, we can simply plug a value of ID into the equation and calculate the predicted Removal.

The Confidence Curves Fit option from Linear Fit displays confidence bands. These bands represent confidence intervals for the mean Removal for a given value of ID. For example, the confidence interval for the mean Removal for parts with ID of 10 is approximately 10.5 to 11.5 units.

The Confidence Curves Indiv option displays prediction bands. These bands represent prediction intervals for individual values of Removal for given values of ID. For example, the predicted range of values for parts with an ID of 10 is approximately 7.5 to 14.5.