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Practice: Interpreting Regression Analysis Results

In JMP, open the file **VSSTeamData.jmp**. Make sure that the five outliers for **Yield** are hidden and excluded.

1. Using **Fit Y by X**, fit a linear regression model for **MFI** versus both **M%** and **Xf**. (Use **MFI** as **Y, Response** and both **M%** and **Xf** as **X, Factor**. To fit the regression models, select **Fit Line** from the red triangles next to **Bivariate Fit**.)

    a. Which model is significant?

    b. Which model has the higher RSquare?

    c. As a measure of the goodness of fit of a model, is it better to have a higher RSquare value or a lower RSquare value? Why?

    d. Which model explains more of the variation in **MFI**?

    a. Both models have *p*-values < 0.0001, so both models are significant.

    b. The model with **M%** has an RSquare of 0.642, but the model with **Xf** has an RSquare of 0.264.

    c. Higher - In models with high RSquare values, more of the variation in the response is explained. (There is less unexplained variation.) However, there is no cutoff to define what a "good RSquare" value is.

    d. The model with **M%** has the higher RSquare value, so this model explains more of the variation in **MFI**.

Hide Solution

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