

Name_____

Date_____

LAB 4E: Some Models Have Curves

Response Sheet

Directions: Record your responses to the lab questions in the spaces provided.

Making models do yoga

Problems with lines

- Describe, in words, how the line fits the data. Are there any values for `critics_rating` that would make obviously poor predictions?

- Compute the MSE of the model for the test data and write it down for later.

Adding flexibility

Making bend-y models

- What is the role of the number 2 in the `poly()` function?

Comparing lines and curves

- Compare how the *line of best fit* and the *quadratic* model fit the data. Which do you think has a lower test MSE?
- Compute the MSE of the quadratic model for the test data and write it down for later.
- Use the test MSE to explain why one model fits better than the other.

On your own

- Based on the plot, which model do you think is the best at predicting the test data?
- Use the test MSE to verify which model is the best at predicting the test data.