Assignment #3

Use the data in Exercise 12.7, p. 633 to do the following.

1. Define the variable \( x = \sqrt{\text{dose level}} \). Fit polynomials of degree 1, 2 and 3 using \( x \) as the independent variable and “Response” (as defined in Exercise 12.7) as the dependent variable. Use the two methods discussed in class to choose an appropriate degree.

2. Now use as dependent variable the logarithm of the response and fit polynomials of degree 1, 2 and 3 using dose level as independent variable. Again use the methods discussed in class to choose an appropriate degree.

3. Obtain residual plots for each of the six models above.

4. Taking into account results from all your output, which of the six models would you recommend. Justify your answer.

This assignment is due Wednesday, October 1.