Homework Assignment 6

In Homework Assignments 2 and 5, you fitted a model to count data under two different assumptions for the variance: Poisson,

$$\text{var}(Y_j | x_j) = \text{E}(Y_j | x_j).$$

and the “power of the mean” model

$$\text{var}(Y_j | x_j) = \sigma^2 [\text{E}(Y_j | x_j)]^\theta.$$

Construct the weighted residuals from the simpler model, and use graphs to assess whether any more complicated variance specification is indicated.