Non-linear least square regression

author: Maria Paniw date: 10.02.2016

Exercise

- load the data `PEG.txt`. This data shows the degradation (in days) of a emergent contaminant: polyethylene glycol - PEG8EO found in personal-care products. The response, *PEG8EO* is relative procentage of the compound.

- Visually inspect the data

- Fit a simple exponential model (hint: fit the model on the log of the resposne, but plot the results by exponentiating the predictions)

- Evaluate the model and its assumptions visually and via tests

- Fit an `nls()`. We treat the model as a simple decay model, so we fit this formula:

`PEG8EO ~ exp(a + b * time)`

- set the initial values for a and b to 0.

- Evaluate the results.

- Plot the predictions of the simple exponential model and the `nls` one.