Stat 201 - Generalized Linear Models

Optional Assignment

- 1. Review the R codes presented during this week (look in the directory R material).
- 2. Load the data remission from the library dobson. These data are described in chapter 10 of the book.
 - (a) Reproduce figure 10.3 of the book by computing the Kaplan-Meier survival estimate for each group
 - (b) Fit a Weibull AFT model. Estimate the acceleration factor. Use this factor to display the two survival curves predicted by the model.
 - (c) Minus the logarithm of the Kaplan Meier estimate of the survival function provides a non parametric estimate of the cumulative hazard function. Compare in a figure the group-specific nonparametric cumulative hazards and their parametric counterparts, as estimated by the Weibull AFT model. Does the model fit the data well?