Statistics 347, Homework 6, due Feb 21

Discussion of homework problems among students is encouraged. However, all material handed in for credit must be your own work.

Please hand in each problem in a separate file with your name on it.

All inference should be done using parametric bootstrap with at least 1000 replications. You should code the bootstrap yourself and show the code, do not use an existing package.

For each model you fit write out in mathematical notation the model assumptions. e.g.

$Y_{ijk} = \mu_i + \alpha_j + \beta_k + \epsilon_{ijk}$, ϵ_{ijk} i.i.d. $N(0, \sigma^2)$, β_k i.i.d $N(0, \sigma_b^2)$, ϵ and β independent.

1. Faraway Chapter 10, problem 2 (page 233)
2. Faraway Chapter 10, problem 4 (page 233)