PSYC 5090: Topics in Mathematical Psychology

Tarleton State University — Homework 5

1. Consider the Murdock (1961) data from the lecture notes. In class, we used parametric bootstrapping to construct 95% confidence intervals for the values of parameters a and b from the power model. In this exercise, I want you to construct 95% confidence intervals for a and b from the *exponential* model. Use at least 1000 bootstrap samples. Be sure to plot the distribution of bootstrap samples $\hat{a}^b$ and $\hat{b}^b$, and also write down the 95% confidence intervals for a and b.

2. Do the same thing for the Rubin and Baddeley data from the past few homeworks. Be sure to do it for both the power model and the exponential model.