Stat 550

Exam #1: Take-home Name: Jan Domingo

For this lab, we will run some simulations using the statistical software program R. Your solutions should contain clearly identified numerical answers and well labeled tables/figures, where appropriate. Make sure to include clear and concise interpretations (that is, clear full sentences) of any values, figures, and responses to queries posed. Place all code in an appendix, at the end of your solutions document.

1. Refer to the gambler’s dispute of 1654 problems on page 109 of Dobrow (problem 3.5) in which we are trying to find the probability of obtaining at least one “double six” in throwing a pair of dice 24 times. We found that probability to be

(a) Simulate the gambler’s dispute of 1654 and calculate the estimated probability of obtaining at least one “double six” in throwing a pair of dice 24 times. Run this experiment for a simulation size of 1,000 and compute the empirical probability

See attached appendix

(b) Compare your estimated probability with the true probability