Michael Demos

HW #5

STAT501

3/22/17

1. A. (too many rolls to fit each one reasonably on page)



1. Average of 100 sample means: 3.48

Standard deviation of 100 sample means: 1.257

The empirical distribution is approximately normal. This compares well with the theoretical distribution, which is normal.

B. iii. (next page)



1. Average of 100 sample means: 3.496

Standard deviation of 100 sample means: 0.5756

The empirical distribution is approximately normal, compliant with the normal theoretical distribution.

C. The results from part A and part B differ in that in part A, we had a smaller sample size (2) for each average, and in part B, we had a larger sample size (10) for each average. Therefore, the histogram of the empirical distribution of xbar is closer to resembling the theoretical distribution. The results from part A and part B are similar in that both empirical distribution histograms appear approximately normal.