# CS4499 - Homework 3

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1. Means

   (a) 100 elements: 0.472642

   (b) 10000 elements: 0.501303

   (c) 1000000 elements: 0.499694

   (d) 100000000 elements: 0.500002

   These look like what I would expect for a random number generator. Mind you, humans are really bad at evaluating whether something is random or not. For all I know, a good random number generator would have its means deviate even more than we have here.

2. The graphs are at the end of this document. The graphs look like what I would expect from a random number generator.

3. The period is 16777216

100 Random Numbers Histogram



10k Random Numbers Histogram

## 1M Random Numbers Histogram



## 100M Random Elements Histogram