1. Generate 150 samples of size 10000 random numbers from U(0, 1). For each of these 150 samples calculate the mean.

   A. Find the simulated probability that the mean is between 0.4 and 0.6.
   B. Find the mean of the means.
   C. Find the standard deviation of the means.
   D. Draw the histogram of the means.

2. Generate 150 samples of size 10000 random integers from the set {1, 2, 3, 4, 5, and 6}. For each of these 150 samples calculate the mean.

   A. Find the simulated probability that the mean is between 4 and 5.
   B. Find the simulated mean of the means.
   C. Find the simulated standard deviation of the means.
   D. Draw the histogram of the means.