Data Visualization Techniques (COS701)

Problem 2

1. Write a short program to generate N uniform random variates x between -1 to +1 in one dimension. Compute the histogram of the N variates and visualize your data.

2. Repeat the calculation in two and three dimensions.

3. Using the uniform random variates x, construct new new variates y, such that

$$y = \frac{1}{m} \sum_{i}^{m} x_i,$$

where m is an integer > 5. Find the distribution (i.e., histrogram) of y and plot your results in two and three dimensions.