1. Write a program to compute probabilities of the chi-square distribution. Compare your computations with those obtained from a statistical package.

2. Use the linear congruential method to generate 1000 uniform [0,1] pseudo-random numbers. Prepare a histogram to examine the performance of your program.

3. Write a program to generate random numbers from a negative binomial distribution.

4. Write a program to generate 1,000 samples from a standard normal distribution using the random number generator given in your programming software. Test for randomness of the sample.