

Matlab programming exercises
ME345 – Modeling and Simulation

Problem 1.

Write a Matlab code that will allow a user to enter in a “critical number” between 0 and 1, and then track the number of times that a random number must be generated in order to be greater than the “critical number”. Output the number of attempts that were necessary, and the numbers that were not successful. Be sure that you code is working correctly.
(*Hint: the command rand will be useful here*)

Problem 2.

This problem is similar to Problem #1 but with some extra complications. Write a Matlab code that will allow a user to enter in a “critical number” between 0 and 1, and then a “tolerance” that will provide a window. Then track how many tries it takes until the random number falls *within* the window.

For example, if the user selects 0.5 as the critical number and 0.01 as the tolerance, how many times does it take for a random number to be generated that is between 0.49 and 0.51. Again, store the numbers that did not work.