The experiment was designed to discover if the random generator on the TI-83 PLUS calculator generates truly random numbers according to Benford’s Law. Using the calculator, random numbers were generated. After finding the percent of occurrences for each digit, both the generated numbers and Benford’s law were graphed and the results were analyzed. The experimentation was then repeated four more times. The graphs and average occurrence of each digit show that the calculator does not generate truly random numbers. The significance of this experiment is to show users of this calculator they are not getting truly random numbers when using the random number generator application.