

X. How many 4-place random numbers can be generated from 10 digits? Repeating digits is allowed.

XI. Six parts are to be inspected from a production process designed to have approximately 5% defective parts. Using the binomial formula, determine the probability of zero defects. Use a table to determine the probability of at least 2 defective parts. State the entire probability distribution. What is the probability of 2 defective parts?

XII. Approximately 4% of the estimated 100 travelers driving on route 128 will stop for a snack between 11:10 PM and 11:20 PM. Is the Poisson approximation to the binomial distribution appropriate for the solution of this problem? Use a table to determine the probability that less than 2 travelers will stop for a snack. Draw a graph of this distribution.