

In the **first** part of the lab, a binomial distribution has been implemented.

The formula for this distribution is as below:

$$P_x = \binom{n}{x} p^x q^{n-x}$$

There are three conditions for the values of n and p and all of them have been implemented.

In the **second** part, a normal distribution has been implemented using the acceptance-rejection method.

Rejection sampling (also known as the acceptance-rejection algorithm) is a key tool in the field of probability for generating random numbers that comply with a particular distribution.