This finds the *mean* of a sample.

This finds the *variance* of a sample.

This finds the standard divination of a sample population.

This finds the Standard divination of the population.

This finds the probability of A

This finds the permutations of problem.

This finds the combinations of problem.

This finds the conditional probability of an event.

This determines if two event are independent.

This finds The Multiplicative Law of Probability id dependent.

If independent

This functions describes The Additive Law of Probability.

This Function is used to find sum of the probabilities of all sample points.

This function finds the Binomial Distribution.

This function is used to find the expected value of Binomial Distribution

This is function is used to find the standard deviation of Binomial Distribution

This function finds the Geometric Distribution.

This function is used to find the expected value of Geometric Distribution

This function is used to find the Standard Deviation of Geometric Distribution

This function finds the Hypergeometric Distribution

This functions is used to find expected value of Hypergeometric Distribution

This function is used to find the standard deviation of Hypergeometric Distribution

This Function is used to find Negative binomial Distribution.

This function is used to find the expected value of Negative Binomial Distribution

This function is used to find the standard deviation of Negative Binomial Distribution

This function is used for Poisson Distribution

The function that is used to find the expected and variance of Poisson Distribution

Chebyshev’s theorem is equal to (k must be greater than 1)

Chapter 4

This Formula is used to express the distribution function of Y

This formula is used to show f(y)

This formula is used to show F(y)

This formula is used to find the probability of y int the interval of a and b

This formula is to find the expected continuous random variable Y

This formula is used to find the expected value of g(Y )

This is the function for Uniform Probability Distribution

The function is used to find the expected value of Uniform Probability Distribution

The function is used to find the deviation of Uniform Probability Distribution

This function is used for Gamma Probability Distribution

Where,

This function is used for the mean of Gamma Probability Distribution

This function is used for the variance of Gamma Probability Distribution

Chapter 5

This is the function for joint binomial distribution.

This function can be used for any random variable Y for joint binomial distribution.

This function is for joint probability density functions.

This function is for marginal probability functions.

This function is for marginal density functions.

This function is for conditional discrete probability function.

This function is used to find conditional distribution.

This function is for conditional density of x given y.

The same works for y given x.

this function proves if x and y are independent of each other.

This function is used for expected value of g