

## Answer on Question #60453 – Math – Statistics and Probability

### Question

Define the following terms:

- (i) Geometric distribution
- (ii) Binomial distribution
- (ii) Continuous bivariate distribution

### Solution

(i) The *geometric distribution* models the number of failures before one success in a series of independent trials, where each trial results in either success or failure, and the probability of success in any individual trial is constant.

(ii) *Binomial distribution* is probability distributions for which there are just two possible outcomes with fixed probabilities summing to one.

(iii) The *continuous bivariate probability distribution* for  $X, Y$  is a probability distribution that gives the probability that each of  $X, Y$  falls in any particular range of values specified for that variable.