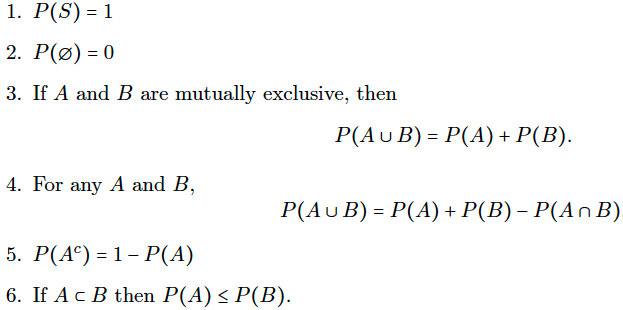


**Bernoulli**



**Rule of Probability**

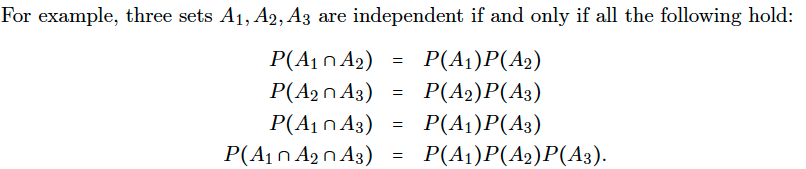
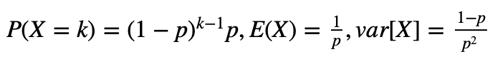
**Binomial: total # of successes**



**Poisson: # of events occurs in a fixed time interval or space**







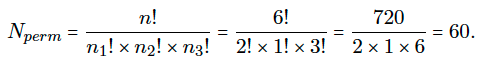
**Geometric: # of Bernoulli trails required to get a first success (memoryless)**



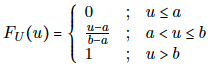
**Negative Binomial: # of success Bernoulli trails before r number of failures**



**Permutation: Given AABCCC, total # of permutations**



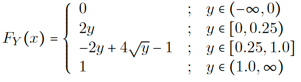
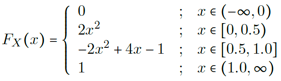
**Uniform**



**CDF**

**Exponential (memoryless)**

**CDF Approach (Y =)**



g(x) =

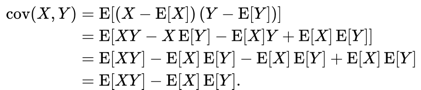
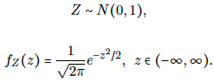


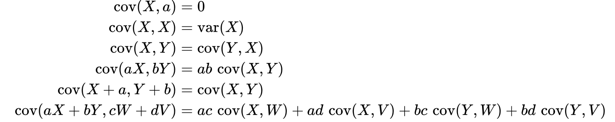
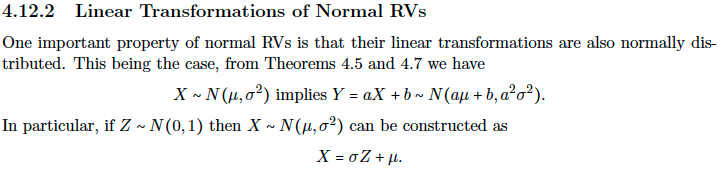
**Normal**

**Y = g(X)**



**Covariance**

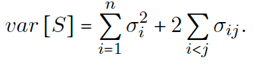




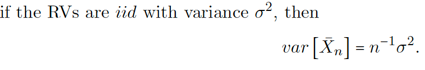
**Sum and Average of RV**

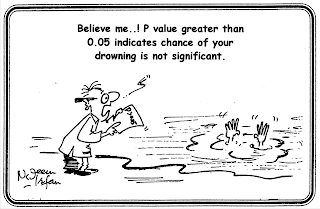


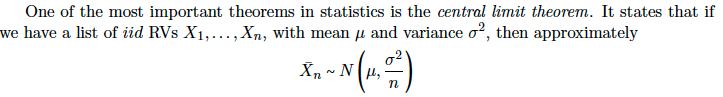
**Z-score**

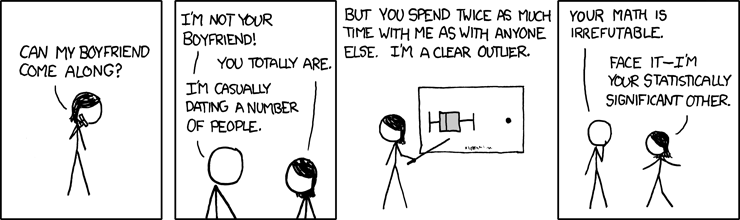












**Central Limit Theorem**