Formula Sheet Probability & Statistics

Mean Formula:

Mode Formula:

Median Formula: &

Variance Formula:

Standard Deviation Formula:

Set Union Formula:

Set Intersection Formula:

Distributive Set Property:

DeMorgan’s Law Formula: &

Axiom 1:

Axiom 2:

Axiom 3:

Permutation Formula:

Combination Formula:

Conditional Probability Formula:

Multiplicative Law of Probability: if dependent

if independent

Bayes Theorem Formula:

Probability Distribution Formula: for all y

Expected Y Formula:

Total Probability Theorem:

Probability Mass Function (PMF):

Binomial Distribution Formula:

Geometric Distribution Formula:

Hypergeometric Distribution Formula:

Negative Binomial Distribution Formula: