|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Distributions** | | | | |
| **Distribution**  **Type** | **Probability** | **Expected Value** | **Variance** | **Test Statistic** |
| Cumulative Binomial |  |  |  |  |
| Poisson |  |  |  |  |
| Normal |  |  |  |  |
| Continuous |  |  | |  |  | | --- | --- | | Conditions | | |  | for all x | | |
| Uniform |  |  |  |  |
| Bernoulli |  |  |  |  |

|  |  |
| --- | --- |
| **Discrete CDF Rules** | **Expected Value and Variance Rules** |
|  |  |
|  |  |
|  |  |

|  |  |  |
| --- | --- | --- |
| **Function** | **Expected Value** | **Variance** |
| Discrete |  |  |
| Discrete( function) |  |
| Continuous |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Point Error Estimation** | | | |
| **Distribution** | **Expected Value** | **Variance** | **Std. Deviation** |
| Normal |  |  |  |
| Binomial |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Confidence Interval** | | **Test Statistics** | |
| Middle Tail |  |  |  |
| Lower Tail & Upper Tail |  |  |  |
| **Confidence Range** | | | |
|  |  |  |  |
|  |  |  |  |
| t-Curve |  |  |  |
| Prediction Range |  |  |  |
| t-Curve |  |  |  |
| Normal Curve |  |  |  |

|  |  |
| --- | --- |
| **Ha** | **P-Value** |
|  |  |
|  |  |
|  |  |
| **Conditions** | **Errors** |
| 🡪Reject | Type 1:Wrongly reject when it is true |
| 🡪Fail to Reject | Type 2:Fail to reject when it is false |

|  |  |
| --- | --- |
| Set Rules |  |
| Name |  |
| Combination (Non-ordered set) |  |
| Permutation (Ordered set) |  |
| Intersection and |  |
| Morgan’s Laws |  |
| Relative Probability |  |
| Law of Total Probability |  |
| Bayes’s Rule |  |
| Unique Scenarios |  |
| Independence |  |