**Statistics Formula Sheet:**

|  |  |  |
| --- | --- | --- |
| **Mean:** | **Sample Mean:** | **Population Mean:** |
| **Median:** (Q2) | **If n is odd:** | **If n is even:** |
| **Mode:** | The number with the highest frequency. | |
| **Range:**  H 🡪 Highest Value  L🡪 Lowest Value |  |  |
| **Standard Deviation:** | **Sample:** | **Population:** |
| **Variance:** | **Sample Variance:** | **Population Variance:** |
| **Coefficient of Variation:** | **Sample CV:** | **Population CV:** |
| **Mean Absolute Deviation:** | **Sample MD (Mean):** | **Population MD (Mean):** |
| **Average Deviation:** | **Sample AD:** | **Population AD:** |

|  |  |
| --- | --- |
| **Quartile:** |  |
| **Percentile:** |  |
| **Decile:** |  |
| **Octile:** |  |
| **Interquartile Range:** |  |
| **Quartile Deviation:** |  |
| **Coefficient of Quartile Deviation:** |  |
| **Range of Outliers:** | **Note:** Any data point that exists outside of the range shown above is considered an outlier. |
| **Coefficient of Range:** |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **General Formula:** | **Expanded Form:** | **2 Numbers:** |
| **Arithmetic Mean:** |  |  |  |
| **Geometric Mean:** |  |  |  |
|  |  |  |
| **Weighted Mean:** |  |  |  |
| **Harmonic Mean:** |  |  |  |
| **Root Mean Square:** |  |  |  |
| **Mean Relationship:** |  | | |

**Statistics Formulas for Grouped Data:**

|  |  |
| --- | --- |
| **Mean:** |  |
| **Midpoint of Range:** |  |
| **Standard Deviation:** |  |
| **Variance:** |  |
| **1st Quartile:** |  |
| **Median – 2nd Quartile:** |  |
| **3rd Quartile:** |  |
| **Mode:** |  |