Sliding Window Example:
Data values: 33 53 24 16 18 1 7 9 5 12

33

33	53

33	53	24

33	53	24	16

33	53	24	16	18

53	24	16	18	1

24	16	18	1	7

16	18	1	7	9

18	1	7	9	5

1	7	9	5	12

Regular windowing:

33	53	24	16	18

1	7	9	5	12

Statistic	Definition
Count	Total number of data values in a sliding window
Sum	Sum of data values in a sliding window
Mean	Average of data values in a sliding window
Median	Middle data value in a sliding window
Minimum	Minimum value in a sliding window
Maximum	Maximum value in a sliding window
Range	Difference of max and min values in a sliding window
Variance	Variance is defined as the average of the squared differences from the mean. In other words, it measures how far a set of numbers are spread out from their mean. To calculate variance, calculate the mean first and then for each number - subtract the mean and square the result (the squared difference)
Standard deviation	Standard deviation is defined as the average amount by which individual data values differ from the mean of all the data values in a sliding window. In other words, it is a measure that quantifies the amount of variation of data values in a sliding window. Standard deviation is square root of variance.
Mode	The number which appears most often in a sliding window. If no data value is repeated, then there is no mode.
Kurtosis	Distributions of data and probability distributions are not all the same shape. Some are asymmetric and skewed to the left or the right. One feature to consider when talking about a distribution is not just the number of peaks but the shape of them. Kurtosis is the measure of the peak of a distribution, and indicates how high the distribution is around the mean. In other words, it measures the degree of peakedness of a distribution. To calculation population kurtosis, calculate the mean and standard deviation and subtract the mean from each data value. Then, divide this result by standard deviation.

Kurtosis	Raise each of these deviations to fourth power and sum. And calculate kurtosis, which is 1 divided by number of data values, times the summation from the previous step.
Skewness	Skewness is asymmetry in a statistical distribution, in which the curve appears distorted or skewed either to the left or to the right. Skewness can be quantified to define the extent to which a distribution differs from a normal distribution. To calculate population skewness, calculate the mean and standard deviation and subtract the mean from each data value and divide this result by standard deviation. Raise each of these deviations to third power and sum. And calculate skewness, which is 1 divided by number of data values, times the summation from the previous step.
Trimean	Trimean is the measure of a probability distribution's location as a weighted average of the distribution's median and its two quartiles. It is calculated as a weighted average of the median and the two quartiles of a set of data values. The formula for trimean is (quartile1 + median * 2 + quartile3) / 4.
First Quartile	The first quartile (Q1) is the middle value between the min and the median of the dataset.
Third Quartile	The third quartile (Q3) is the middle value between the median and the highest value of the dataset.
Quartile Range	Quartile range is a measure of variability based on dividing a dataset into quartiles. It is the difference between the upper quartile (Q3) and lower quartile (Q1).
2nd Percentile	Value below which 2% observations may be found
9th Percentile	Value below which 9% observations may be found
25th Percentile	Value below which 25% observations may be found
75th Percentile	Value below which 75% observations may be found
91st Percentile	Value below which 91% observations may be found
95th Percentile	Value below which 95% observations may be found
98th Percentile	Value below which 98% observations may be found
99th Percentile	Value below which 99% observations may be found