<u>Glossary</u>

1. Approximation

An approximation is an <u>inexact</u> representation of something that is still close enough to be useful. Although approximation is most often applied to <u>numbers</u>, it is also frequently applied to such things as <u>mathematical functions</u>, <u>shapes</u>, and <u>physical laws</u>.

2. Asymptote

A line whose distance to a given curve tends to zero. An asymptote may or may not intersect its associated curve.

3. Celestial Body

Natural objects visible in the sky.

4. Converge

To approach a limit.

5. Continuous Function

A continuous function is a <u>function</u> for which, intuitively, small changes in the input result in small changes in the output.

6. Cumulative Probability Distribution

A function that shows the probability that the random variable will attain a value less than or equal to each value that the random variable can take on.

7. Curve

A line or outline that gradually deviates from being straight for some or all of its length.

8. Expected Value

In statistics, it is the sum or integral of all possible values of a random variable, or any given function of it, multiplied by the respective probabilities of the values of the variable.

9. Histogram

A diagram consisting of rectangles whose area is proportional to the frequency of a variable and whose width is equal to the class interval.

10. **Mean**

The average value of a set of numbers.

11. Normal Distribution

A theoretical frequency distribution for a set of variable data, usually represented by a bell-shaped curve symmetrical about the mean.

12. Probability

A number expressing the likelihood that a specific event will occur, expressed as the ratio of the number of actual occurrences to the number of possible occurrences.

13. Prevalence

The quality of prevailing generally.

14. Random Variables

In statistics, it is a quantity that may take any of a range of values, either continuous or discrete, which cannot be predicted with certainty but only described probabilistically Abbreviation rv.

15. Variance

The square of the standard deviation.