Glossary

Unit 6: Statistics

68.3-95.4-99.7 rule In a normal distribution, approximately 68.3% of the data lies within one standard deviation of the mean, 95.4% lies within two standard deviations of the mean, and 99.7% of data lies within three standard deviations of the mean.

Arithmetic Mean Sometimes called the "average", the arithmetic mean can be found by adding all values in a data set and dividing the sum by the number of values in the set.

Class An interval of data values used to make a frequency distribution.

Confidence Interval The range of values that are expected to be a good estimate of an unknown value.

Confidence Level How often the true value is expected to fall within the confidence interval.

Dispersion How spread out a set of data is. Range and standard deviation are measures of dispersion.

Frequency Distribution A grouping of data into classes to show how many data values fit within each class. Frequency tables and histograms are examples of frequency distributions.

Histogram A bar graph that represents a frequency distribution.

Margin of Error Half of the confidence interval.

Measure of Central Tendency A value that is used to represent the 'centre' of a data set. Mean, median, and mode are common measures of central tendency.

Median The middle value (or mean of the two middle values) of a data set when the values are arranged in order from smallest to largest.

Mode The most common value in a set of data.

Normal Curve A curve that takes the same bell-shape as normally distributed data represented by a histogram.

Normal Distribution Data that, when graphed as a histogram, forms a bell shape that is symmetrical about the mean.

Range The difference between the largest and smallest values in a set of data.

Standard Deviation A measure of dispersion; how spread out the data is.

Standard Normal Distribution A normal distribution with a mean of 0 and a standard deviation of 1.

***z*-score** The number of standard deviations a data value is from the mean.