Word	Description
Z-test	Z-test determines to what extent a data point is away from the mean of the data set, in standard deviation. For example: Principal at a certain school claims that the students in his school are above average intelligence. A random sample of thirty students has a mean IQ score of 112. The mean population IQ is 100 with a standard deviation of 15. Is there sufficient evidence to support the principal's claim? So we can make use of z-test to test the claims made by the principal. Steps to perform z-test: • Stating null hypothesis and alternate hypothesis. • State the alpha level. If you don't have an alpha level, use 5% (0.05). • Find the rejection region area (given by your alpha level above) from the z-table. An area of .05 is equal to a z-score of 1.645. • Find the test statistics using this formula: $$Z\text{-test} = \frac{\bar{x} - \mu}{\sigma / \sqrt{n}}$$ Here, • $\bar{x}$ is the sample mean • σ is population standard deviation • n is sample size • μ is the population mean If the test statistic is greater than the z-score of rejection area, reject the null hypothesis. If it's less than that z-score, you cannot reject the null hypothesis.