1. Z Test:
The Z test is a statistical test used to compare the sample mean to a population mean when the sample size is large (greater than 30). It is an alternative to the T-test for comparing two groups of data. The formula for Z test is X-bar / sigma x bar = calculated value, where X-bar represents the sample mean and sigma x bar represents the population standard deviation.
2. Conditions:
The conditions for applying the Z test are:
* Large sample size (n > 30)
* No information on the population standard deviation
* Comparison of sample mean to a population mean
3. Formulas:
The formula for Z test is:
Z = X-bar / sigma x bar
Where X-bar represents the sample mean and sigma x bar represents the population standard deviation.
4. Significance Level:
The significance level for Z test is 0.05, which means there is a 5% chance of rejecting the null hypothesis.
5. Mod:
Mod (modification) is used to check the calculated value against the tabulated value in the table. If the calculated value is smaller than the tabulated value, then the null hypothesis is accepted, and if it's bigger, then the alternate hypothesis is rejected.