1. **What is the difference between Inferential Statistics and Descriptive Statistics?**

Descriptive statistics is the branch of statistics which is concerned with describing the population under study. It organize, analyse and present data in a meaningful way. Charts, Graphs and Tables are the form of final result.

Inferential Statistics is a type of statistics, that focuses on drawing conclusions about the population, on the basis of sample analysis and observation. It compares, tests and predicts data. Final result will be in the form of probability.

1. **What is the difference between population and sample in inferential statistics?**

Population and Sample are terms commonly used in statistics to describe the percentage of measure within a certain area of focus. A population refers to the entire possible set of all data items within a field of focus while a sample refers to only a select portion.

1. **Most common characteristics used in descriptive statistics?**

Measure of central tendency – Mean, Median, Mode

Measure of Spread – Standard deviation, Variance and Quartile

1. **How to calculate range and interquartile range?**

To calculate range:

* Arrange the numbers in Ascending order
* Subtract lowest number frim the largest number

Example: 20, 14, 28, 24, 25, 19

Ascending Order: 14, 19, 20, 24, 25 = 28-14=14

To calculate interquartile range:

* Arrange numbers in Ascending order
* Find the median
* Calculate the median of both the lower and upper half of the data.
* IQR is the difference between upper and lower median

Example: 45, 47, 52, 52, 53, 55, 56, 56, 62, 80

Median= (53+55)/2=54

Q1=52 Q3=58

IQR= Q3-Q1= 58-52=6

1. **How is the statistical significance of an insight assessed?**

Statistical significance is often calculated with statistical hypothesis testing, which tests the validity of a hypothesis by figuring out the probability that your results have happened by chance. The result of a hypothesis test allows us to see whether this assumption holds under scrutiny or not.