

Statistic work sheet_1

1. True
2. Central Limit Theorem
3. Modeling bounded count data
4. All of the mentioned
5. Poisson
6. False
7. Hypothesis
8. 0
9. Outliers cannot conform to the regression relationship.
10. Normal distribution is a probability density function for a continuous random variable. It is an arrangement of dataset in which most value cluster in the middle of the range and the rest taper off symmetrically toward either extreme. A graphical representation of normal distribution is sometimes called a bell curve because of its flared shape. The precise shape can vary according to the distribution of the population but the peak is always in the middle and the curve is always symmetrical. Height is the best example of something that follows normal distribution pattern.
11. The best way to handle the missing data is imputation technique or removing the data. Multiple imputation technique is recommended.
12. A/B testing is a user experience research methodology. It consists of randomized experiment with two variants, A and B. It includes application of statistical hypothesis testing or two sample hypothesis testing is used in the field of statistics.
13. Technically yes it's acceptable when the missing value portion is not large enough but the missing value is large enough and we can impute them with the mean, the standard error will be lesser.
14. It allows to summarize and study the relationship between two continuous variables

15. The branches of statistics are:

- I) Econometric : It is one of the branches of statistics used to resolve economic problems mostly used by the banks to forecast the interest rate and loan model.
- II) Actuarial: Used to focus on studying and analysing risk in finance and insurance. Mostly used in insurance, future risk and predicting a financial trend. It has the big contribution in deciding the fate of the company.
- III) Psychometrics: It focuses on studying measurement technique and analysing in education world and psychology. It includes attitude, personality and emotion.
- IV) Physics statistics: It focuses on solving physics science. Usually, statistics take part in measurement and calculation with particle.
- V) Population statistics: It study on social aspects like life, health education and migration. It predicts the future population.
- VI) Official statistics: It mostly used in government sector. It used to measure some strategic indicator that has large impact on society
- VII) Biostatistics: Used to solve the biology statistical problem. It also used in medical world such as vaccine making, medicine quality control, analyse some diseases factor and medical risk.
- VIII) Industrial statistics: Used in industry to solve the industrial problem as quality control queuing theory optimizing variable
- IX) Computing statistics: Used in focusing on the use of information technology in producing most powerful statistics. Used various programs, algorithm and software