

1. a) True
2. a) Central Limit Theorem
3. b) Modeling bounded count data
4. d) All of the mentioned
5. c) Poisson
6. a) True
7. b) Hypothesis
8. a) 0
9. c) Outliers cannot conform to the regression relationship
10. Normal distribution, also known as the Gaussian distribution, is **a probability distribution that is symmetric about the mean, showing that data near the mean are more frequent in occurrence than data far from the mean.** In graphical form, the normal distribution appears as a "bell curve".
11. Missing data can be dealt with in a variety of ways. ...  
Another common strategy among those who pay attention is imputation. ...  
Mean imputation. ...  
Substitution. ...  
Hot deck imputation. ...  
Cold deck imputation. ...  
Regression imputation.
12. A/B testing (also known as [split testing](#) or [bucket testing](#)) is a methodology for comparing two versions of a webpage or app against each other to determine which one performs better. A/B testing is essentially an experiment where two or more variants of a page are shown to users at random, and statistical analysis is used to determine which variation performs better for a given conversion goal
13. The process of replacing null values in a data collection with the data's mean is known as mean imputation. Mean imputation is typically considered terrible practice since it ignores feature correlation. Consider the following scenario: we have a table with age and fitness scores, and an eight-year-old has a missing fitness score. If we average the fitness scores of people between the ages of 15 and 80, the eighty-year-old will appear to have a significantly greater fitness level than he actually does. Second, mean imputation decreases the variance of our data while increasing bias. As a result of the reduced variance, the model is less accurate and the confidence interval is narrower.
14. Linear regression is used to predict the relationship between two variables by applying a linear equation to observed data. There are two types of variable, one variable is called an independent variable, and the other is a dependent variable. Linear regression is commonly used for predictive analysis. The main idea of regression is to examine two things. First, does a set of predictor variables do a good job in predicting an outcome (dependent) variable? The second thing is which variables are significant predictors of the outcome variable? In this article, we will discuss the concept of the Linear Regression Equation, formula and Properties of Linear Regression.
15. The two main branches of statistics are **descriptive statistics and inferential statistics**. Both of these are employed in scientific analysis of data and both are equally important for the student of statistics.