Statistics worksheets – 6

1.Ans) b) Total Variation = Residual Variation + Regression Variation

2.Ans) c) binomial

3.Ans) a) 2

4.Ans) (a) Type-I error

5.Ans) (c) Level of confidence

6.Ans) (b) Increases

7.Ans) (b) Hypothesis

8.Ans) (d) All of the mentioned

9.Ans) (a) 0

10.Ans) Bayes' theorem also known as Bayes rule or Bayes law is a result in probability theory that relates conditional probabilities. If A and B denote two events, P(A|B) denotes the conditional probability of A occurring, given that B occurs. Bayes theorem gives a relation between P(A|B) and P(B|A)

11.Ans) z-score also called a standard score gives you an idea of how far from the [mean](https://www.statisticshowto.com/probability-and-statistics/statistics-definitions/mean-median-mode/) a data point is. But more technically it’s a measure of how many [standard deviations](https://www.statisticshowto.com/probability-and-statistics/standard-deviation/) below or above the [population mean](https://www.statisticshowto.com/population-mean/) a [raw score](https://www.statisticshowto.com/raw-score/)

12.Ans) A t-test is a [statistical test](https://www.scribbr.com/statistics/statistical-tests/) that compares the means of two [samples](https://www.scribbr.com/methodology/sampling-methods/). It is used in [hypothesis testing](https://www.scribbr.com/methodology/hypothesis-testing/), with a null hypothesis that the difference in group means is zero and an alternate hypothesis that the difference in group means is different from zero.

13.Ans) The most common definition of a percentile is a number where a certain percentage of scores fall below that number. That means if you scored 156 on the exam, your score was better than 70 percent of test takers. The 25th percentile is also called the first quartile.

14.Ans) Analysis of variance (ANOVA) is a statistical technique that is used to check if the means of two or more groups are significantly different from each other. ANOVA checks the impact of one or more factors by comparing the means of different samples.

15.Ans) The one-way ANOVA can help you know whether or not there are significant differences between the means of your independent variables (such as the first example: age, sex, income). When you understand how each independent variable’s mean is different from the others, you can begin to understand which of them has a connection to your dependent variable (landing page clicks), and begin to learn what is driving that behavior.