

STATISTICS WORKSHEET 3

1.d

2.a

3.a

4. c

5.c

6.c

7.b

8.d

9.b

10. **Bayes' Theorem**-Bayes' Theorem states that the conditional probability of an event, based on the occurrence of another event, is equal to the likelihood of the second event given the first event multiplied by the probability of the first event.

11. A Z-score is a numerical measurement that describes a value's relationship to the mean of a group of values. Z-score is measured in terms of standard deviations from the mean. If a Z-score is 0, it indicates that the data point's score is identical to the mean score.

12. A t-test is a statistical test that is used to compare the means of two groups. It is often used in hypothesis testing to determine whether a process or treatment actually has an effect on the population of interest, or whether two groups are different from one another.

13. a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it.

14. ANOVA, which stands for Analysis of Variance, is a statistical test used to analyze the difference between the means of more than two groups. A one-way ANOVA uses one independent variable, while a two-way ANOVA uses two independent variables.

15. ANOVA is helpful for testing three or more variables. It is similar to multiple two-sample t-tests. However, it results in fewer type I errors and is appropriate for a range of issues. ANOVA groups differences by comparing the means of each group and includes spreading out the variance into diverse sources.