

STATISTICS WORKSHEET 1

1)a

2)a

3)d

4)d

5)c

6)b

7)b

8)a

9)c

10)

NORMAL DISTRIBUTION:

Normal 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 graph form, normal distribution will appear as a bell curve.

Normal distributions are symmetric, unimodal, and asymptotic, and the mean, median, and mode are all equal.

A normal distribution is perfectly symmetrical around its center.

That is, the right side of the center is a mirror image of the left side.

11) Please explain this question

12)

A/B TESTING: A/B testing is a basic randomized control experiment. It is a way to compare the two versions of a variable to find out which performs better in a controlled environment.

Here, either you can use random experiments, or you can apply scientific and statistical methods.

13) Imputing the mean preserves the mean of the observed data.

So if the data are missing completely at random, the estimate of the mean remains unbiased

14) In statistics, linear regression is a linear approach for modelling the relationship between a scalar response and one or more dependent and independent variables.

It is a way to model a relationship between two sets of variables.

15) Two main branches of statistics are descriptive statistics and inferential statistics.

a)Descriptive statistics : Descriptive statistics deals with the presentation and collection of data.

Suppose the average age of citizens who voted for the winning candidate in the last presidential election, the average length of all books about statistics, the variation in the weight of 100 boxes of cereal selected from a factory's production line.

b)Inferential statistics :It involves drawing the right conclusions from the statistical analysis that has been performed using descriptive statistics.

Most predictions of the future and generalizations about a population by studying a smaller sample come under the purview of inferential statistics. Most social sciences experiments deal with studying a small sample population that helps determine how the population in general behaves.