

STATISTICS WORKSHEET-8

1. B
2. B
3. D
4. B
5. A
6. D
7. B
8. A
9. A
10. C
11. A
12. C
- 13.

ANOVA in SPSS, is used for examining the differences in the mean values of the dependent variable associated with the effect of the controlled independent variables, after taking into account the influence of the uncontrolled independent variables, after taking into account the influence of the uncontrolled independent variables. Essentially, ANOVA in SPSS is used as the test of means for two or more populations.

14.

To use the ANOVA test we made the following assumptions:

Each group sample is drawn from a normally distributed population

All populations have a common variance

All samples are drawn independently of each other

Within each sample, the observations are sampled randomly and independently of each other

Factor effects are additive

15.

One-Way ANOVA allows one to make comparisons between the means of three or more groups of data. Two Way ANOVA allows one to make comparisons between the means of three or more groups of data, where two independent variables are considered. There is only 1 independent variable in 1 one way anova test whereas 2 in 2 way anova test.

One way eg: Testing the relationship between shoe brand (Nike, Adidas, Saucony, Hoka) and race finish times in a marathon.

Two way anova eg: Testing the relationship between shoe brand (Nike, Adidas, Saucony, Hoka), runner age group (junior, senior, master's), and race finishing times in a marathon.

All ANOVAs are designed to test for differences among three or more groups. If you are only testing for a difference between two groups, we use t-test instead.