

✔ Congratulations! You passed!

Grade received 100% To pass 80% or higher

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1. Which of the following statements accurately describe t-tests and analyses of variance? Select all that apply.

1 / 1 point

- ☐ A t-test can test means between several groups.
- ☒ A t-test can only test the difference of mean between two groups.

✔ Correct

A t-test can only test the difference of mean between two groups. An analysis of variance test can test means between several groups.

- ☒ An analysis of variance test can test means between several groups.

✔ Correct

A t-test can only test the difference of mean between two groups. An analysis of variance test can test means between several groups.

- ☐ An analysis of variance test can only test the difference of mean between two groups.

2. Which of the following are analysis of variance (ANOVA) tests? Select all that apply.

1 / 1 point

- ☐ A/B ANOVA
- ☐ Half-way ANOVA
- ☒ One-way ANOVA

✔ Correct

One-way ANOVA and two-way ANOVA are types of analysis of variance tests. Analysis of variance, commonly called ANOVA, is a group of statistical techniques that test the difference of means between three or more groups.

- ☒ Two-way ANOVA

✔ Correct

One-way ANOVA and two-way ANOVA are types of analysis of variance tests. Analysis of variance, commonly called ANOVA, is a group of statistical techniques that test the difference of means between three or more groups.

3. Fill in the blank: A post hoc test performs a pairwise comparison between all available groups while controlling for the \_\_\_\_.

1 / 1 point

- ☒ error rate
- ☐ Tukey's HSD
- ☐ variable selection
- ☐ confidence interval

✔ Correct

A post hoc test performs a pairwise comparison between all available groups while controlling for the error rate. There is always a small chance that the null hypothesis is falsely rejected purely based on probability. The post hoc ANOVA test controls for that increasing probability.