1.) The sum of squared deviations of each score from the grand mean is the \_\_\_\_\_\_\_\_.

2.) What is the effect of a conservative statistical test?

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|   |  | a) It minimizes the chances of both type 1 and type 2 errors.  |
|   |  | b) It minimizes the chance of type 1 errors, but increases the chance of type 2 errors.  |
|   |  | c) It minimizes the chance of type 1 errors, but increases the chance of type 3 errors.  |
|   |  | d) It decreases the chance of type 2 errors. 3.) If a researcher reported an F-ratio with df = 2, 21 for a randomized one-way ANOVA, then there were \_\_\_\_\_\_\_\_\_\_\_ conditions in the experiment and \_\_\_\_\_\_\_\_\_\_ total participants.

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| --- | --- | --- |
|   |  | a) 2; 21 |
|   |  | b) 3; 23 |
|   |  | c) 2; 24 |
|   |  | d) 3; 24 |

4.) When an observed difference between two means is unlikely to have occurred by chance, we say that the result has \_\_\_\_\_\_\_\_\_\_.5.) In a study of the effects of caffeine on driving performance, researchers predict that those in the group given more caffeine will exhibit poorer driving performance. The researchers are using a \_\_\_\_\_\_\_\_\_\_ test.

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|   |  | a) two-tailed |
|   |  | b) directional |
|   |  | c) one-tailed |
|   |  | d) both b and c |

6.) In ANOVA, the mean performance across all participants is represented by the \_\_\_\_\_\_\_\_\_\_7.) Systematic variance and error variance comprise the \_\_\_\_\_\_\_\_\_\_ variance.

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|   |  | a) within-groups  |
|   |  | b) total  |
|   |  | c) between-groups  |
|   |  | d) participant  |

8.) If in a randomized ANOVA there are 4 groups with 15 participants in each group, then the df for the F-ratio is equal to \_\_\_\_\_\_\_\_\_\_.

|  |  |  |
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|   |  | a) 60 |
|   |  | b) 59 |
|   |  | c) 3, 56 |
|   |  | d) 3, 57 |

9.) What is the name of the category of statistical tests that do not involve the use of any population parameters?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_10.) Why does APA recommend that we calculate a measure of effect size in addition to calculating the test statistic? |