

Disclaimer

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Chapter 9 Test



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DIRECTIONS: For this multiple-choice test, select the most appropriate answer for each statement or question.

1. Two samples are said to be independent if the subjects in group 1 are completely different from the subjects in group 2.
 - a) True
 - b) False

2. Two samples are said to be dependent if the subjects in group 1 and group 2 are the same subjects.
 - a) True
 - b) False

3. Testing the population mean difference using dependent samples can also be referred to as a _____ design.
 - a) dual zone
 - b) matched-pairs
 - c) synonymous
 - d) identical



4. On average, do women spend more time at a tanning salon each month than men? Researchers sampled 19 women and determined the mean to be 30 minutes with a standard deviation of 5 minutes. From a sample of 18 men, the mean was determined to be 27 minutes with a standard deviation of 3 minutes. A test of hypothesis was performed at the 5% level of significance. What were the degrees of freedom used to determine the critical values? Assume the samples were taken from normal populations.
- a) 36
 - b) 19
 - c) 18
 - d) 17
5. Is the average number of hours spent exercising each week different for college men and women? To test this claim, researchers sample 30 college men and determines the mean to be 6.5 hours with a standard deviation of 1.25 hours. From a sample of 25 college women, the mean is 5.5 hours with a standard deviation of 2.5 hours. At the 5% level of significance, what is the decision of the hypothesis test? Assume the samples were taken from normal populations.
- a) Reject the null hypothesis
 - b) Do not reject the null hypothesis



6. Below is a set of data from a matched-pairs design. At the 10% level of significance, test $\mu_D \neq 0$ and state the decision. Assume normality.

Subject	1	2	3	4
Before	191	203	169	197
After	183	201	158	192

- a) Do not reject the null hypothesis
b) Reject the null hypothesis
7. To make an inference about the difference between two population proportions, researchers use the difference between two sample proportions as the point estimate.
- a) True
b) False



Answers

1. True
2. True
3. Matched-pairs
4. 17
5. Do not reject the null hypothesis
6. Reject the null hypothesis
7. True

