

Chapter 7 & 9

Circle:

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**Provide an appropriate response.**

- 1) The mean age of bus drivers in Chicago is 47.4 years. If a hypothesis test is performed, how should you interpret a decision that rejects the null hypothesis? 1) _____
- A) There is sufficient evidence to support the claim $\mu = 47.4$.
 B) There is not sufficient evidence to support the claim $\mu = 47.4$.
 C) There is sufficient evidence to reject the claim $\mu = 47.4$.
 D) There is not sufficient evidence to reject the claim $\mu = 47.4$.
- 2) The mean score for all NBA games during a particular season was less than 106 points per game. If a hypothesis test is performed, how should you interpret a decision that rejects the null hypothesis? 2) _____
- A) There is sufficient evidence to reject the claim $\mu < 106$.
 B) There is not sufficient evidence to reject the claim $\mu < 106$.
 C) There is sufficient evidence to support the claim $\mu < 106$.
 D) There is not sufficient evidence to support the claim $\mu < 106$.
- 3) A candidate for governor of a certain state claims to be favored by at least half of the voters. If a hypothesis test is performed, how should you interpret a decision that rejects the null hypothesis? 3) _____
- A) There is not sufficient evidence to support the claim $q \geq 0.5$.
 B) There is sufficient evidence to reject the claim $q \geq 0.5$.
 C) There is not sufficient evidence to reject the claim $q \geq 0.5$.
 D) There is sufficient evidence to support the claim $q \geq 0.5$.
- 4) The dean of a major university claims that the mean time for students to earn a Master's degree is at most 3.8 years. If a hypothesis test is performed, how should you interpret a decision that fails to reject the null hypothesis? 4) _____
- A) There is sufficient evidence to reject the claim $\mu \leq 3.8$.
 B) There is not sufficient evidence to support the claim $\mu \leq 3.8$.
 C) There is not sufficient evidence to reject the claim $\mu \leq 3.8$.
 D) There is sufficient evidence to support the claim $\mu \leq 3.8$.
- 5) Suppose you are using $\alpha = 0.05$ to test the claim that $\mu \neq 36$ using a P-value. You are given the sample statistics $n = 35$, $\bar{x} = 35.1$. Let $\sigma = 2.7$. Find the P-value. 5) _____
- A) 0.0591 B) 0.1003 C) 0.0488 D) 0.0244
- 6) Find the critical value for a right-tailed test with $\alpha = 0.01$ and $n = 75$. σ is known. 6) _____
- A) 1.96 B) 2.575 C) 2.33 D) 1.645
- 7) Suppose you are using $\alpha = 0.01$ to test the claim that $\mu = 1120$ using a P-value. You are given the sample statistics $n = 35$, $\bar{x} = 1090$. Let $\sigma = 82$. Find the P-value. 7) _____
- A) 0.0077 B) 0.0308 C) 0.3169 D) 0.0154
- 8) Find the critical value for a left-tailed test with $\alpha = 0.025$ and $n = 50$. σ is known. 8) _____
- A) -1.645 B) -2.575 C) -2.33 D) -1.96

9) Find the critical values for a sample with $n = 10$ and $\alpha = 0.05$ if $H_0: \mu \geq 20$. σ is unknown. 9) _____
 A) -1.833 B) -2.262 C) -3.250 D) -1.383

10) You wish to test the claim that $\mu \neq 17$ at a level of significance of $\alpha = 0.05$ and are given sample statistics $n = 35$, $\bar{x} = 16.1$, and $s = 2.7$. Compute the value of the standardized test statistic. Round your answer to two decimal places. 10) _____
 A) -1.83 B) -1.97 C) -3.12 D) -2.86

11) Calculate the correlation coefficient, r , for the data below. 11) _____

x	-10	-8	-1	-4	-6	-7	-5	-3	-2	-9
y	-12	-10	7	-1	-4	-8	-3	1	4	-10

A) 0.990 B) 0.792 C) 0.819 D) 0.881

Answer Key

Testname: EXAMC7_9

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

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____
- 10) _____
- 11) _____