Started on	Thursday, May 21, 2020, 1:12 PM
State	Finished
Completed on	Thursday, May 21, 2020, 1:39 PM
Time taken	27 mins 1 sec
Grade	**59.00** out of 100.00

Question **1**

Correct

1.00 points out of 1.00

I do hereby certify that all work contained within is my work and my work alone. I never gave nor received help from any other individual.

Select one:

- True ✔
- False

The correct answer is 'True'.

Question **2**

Correct

6.00 points out of 6.00

The Central Limit Theorem guarantees us that regardless of the population distribution and sample size, the distribution of the sample mean is always normally distributed.

Select one:

- True
- False ✔

The correct answer is 'False'.

Question **3**

Correct

6.00 points out of 6.00

When doing a hypothesis test and/or confidence interval for a proportion, we should:

Select one:

- a. Check that $n(1-p) \geq 5$.
- b. Check both $np \geq 5$ and $n(1-p) \geq 5$. ✔
- c. Check that $np \geq 5$
- d. Do nothing to check assumptions.

Your answer is correct.

The correct answer is: Check both $np \geq 5$ and $n(1-p) \geq 5$.

Information

Student checking accounts: The balance held by student checking accounts at a certain bank follows a normal distribution with a mean of $250 and a standard deviation of $50 (assume that these are population values).

Question 4

Incorrect

0.00 points out of 6.00

In a random sample of size 100, find the probability that the sample average will be larger than $265.

Answer: .0668 ✖

The correct answer is: 0.001

Information

A small boutique is interesting in doing some analytics with its daily profit. However, first they need an estimate of the average daily profit. The boutique randomly samples 64 days and calculates an average daily profit of $1750 with a standard deviation of $120. Use this information to answer the questions below.

Question 5

Correct

7.00 points out of 7.00

Find a 90% confidence interval for the true daily average. The lower value for the confidence interval is:

Answer: 1724.93 ✔

The correct answer is: 1724.96

Question 6

Correct

7.00 points out of 7.00

The upper value for the confidence interval is:

Answer: 1775.065 ✔

The correct answer is: 1775.04

Question 7

Correct

6.00 points out of 6.00

What is the value for the standard error for this problem?

Answer: 15 ✔

The correct answer is: 15

Question 8

Correct

6.00 points out of 6.00

What is the value for the margin of error for this problem?

Answer: 25.065 ✔

The correct answer is: 25.04

Question 9

Incorrect

0.00 points out of 7.00

The owner would like to know if her average daily sales is significantly higher than $1700. What is the null and alternative hypothesis in this situation?

Select one:

- a. H0: Mu≥1700 HA: Mu<1700 ✖
- b. H0: Mu≤1700 HA: Mu>1700
- c. H0: Mu=1700 HA: Mu≠1700
- d. Need more information.

Your answer is incorrect.

The correct answer is: H0: Mu≤1700 HA: Mu>1700

Question 10

Not answered

Points out of 7.00

Refer to the hypothesis test in the previous problem. Calculate the test statistic.

Answer: ✖

The correct answer is: 3.333

Question 11

Incorrect

0.00 points out of 7.00

Refer to the previous test statistic. What is the p-value?

Select one:

- a. 0.0007
- b. 0.05 ✖
- c. 0.001
- d. 0.9

Your answer is incorrect.

The correct answer is: 0.0007

Question 12

Correct

6.00 points out of 6.00

Based on the p-value and a level of significance of 0.05, we would reject the null hypothesis.

Select one:

- True ✔
- False

The correct answer is 'True'.

Question 13

Correct

7.00 points out of 7.00

A student at NCSU wants to determine what percent of full-time, undergraduate students attended at least one football game last year. He obtains a random sample of size 225 and found that 90 attended at least one football game. Calculate the sample proportion.

Answer: .4 ✔

The correct answer is: 0.4

Question 14

Incorrect

0.00 points out of 7.00

For the previous problem, calculate the 99% confidence interval. The lower value is:

Answer: .3972 ✖

The correct answer is: 0.316

Question 15

Incorrect

0.00 points out of 7.00

The upper value for the confidence interval is:

Answer: .4027 ✖

The correct answer is: 0.484

Question 16

Correct

7.00 points out of 7.00

Polls, such as the Gallup Poll, want a 3% margin of error. How large of a sample do they need if they want a 3% margin of error with 95% confidence when trying to estimate a proportion?

Answer: 1068 ✔

The correct answer is: 1068

◄ Slide Deck 6 - Practice Problems

Jump to...

Assessment # 2 Calculations ►