Take Test: Module 02 Week 3 Pen and Pencil Assignment

Test Information

Description

This week's pen and pencil assignment covers the assigned reading in our textbook by Illowsky and Dean, i.e. Chapters 8 and 9. Directions: Select the link below to download a Word doc with most of the assigned problems. Remember that this week's problems cover both Chapters 8 and 9 in the textbook..
After completing the problems using pen and pencil, put your answers in the online assessment for this week below.

- View Assignment (doc) View Assignment (doc) - Alternative Formats

This assignment includes a variety of multiple choice, true/false and fill in the blank questions.

Instructions

As always, you should complete the questions using "pen and pencil" first. Then, when you have answered all the questions by "pen and pencil" use this online assignment to submit your answers. Remember, you can discuss the questions, use tools you have to check your work, but when you submit your answers they must all be your own!

Multiple Attempts

This test allows 2 attempts. This is attempt number 1.

Force Completion

This test can be saved and resumed later.

Your answers are saved automatically.

Question Completion Status:

QUESTION 1

You have been asked to calculate a 95% confidence interval for a data sample. You know the mean of this sample but you do not know the population standard deviation. The probability distribution you should use in your calculations is the

- ○ no distribution. You cannot do this problem.
- ○ Whatever distribution the data follow.
- ○ Normal Distribution.

○ Student-t Distribution.

10 points Save Answer

QUESTION 2

Using the data below, calculate the 95% confidence interval. Round your answers to two decimal places. What is the lower bound for the confidence interval?

3.3
2.9
3
3.1
2.7
2.6
4
3.8
2.8
3.6

5 points Save Answer

QUESTION 3

Calculate the 95% confidence interval for the data below. Round your answers to two decimal places. What is the upper bound for the 95% confidence interval?

3.3
2.9
3
3.1
2.7
2.6
4
3.8
2.8

3.6

5 points Save Answer

QUESTION 4

Calculate a 90% confidence for the data below. Round your answers to two decimal places. What is the lower bound on the 90% confidence interval?

3.3
2.9
3
3.1
2.7
2.6
4
3.8
2.8
3.6

5 points Save Answer

QUESTION 5

You have been asked to calculate a 90% confidence interval for the data below. Round your answers to two decimal places. What is the upper bound on the 90% confidence interval?

3.3
2.9
3
3.1
2.7
2.6
4
3.8
2.8

3.6

5 points Save Answer

QUESTION 6

The 90% confidence interval is wider than the 95% confidence interval for the same data because a lower confidence level actually covers more area, i.e. a wider interval.

- ○ True
- ○ False

10 points Save Answer

QUESTION 7

If you increase the number of observations in your dataset you would expect your confidence interval to become narrower.

- ○ True
- ○ False

10 points Save Answer

QUESTION 8

Many students misinterpret a confidence interval, i.e. a 90% confidence interval, to mean that there is confidence that 90% of the data lie within this interval. That is not true. Fill in the blank in the following

sentence to complete what is accurately meant in expressing a confidence interval for an analysis involving the true population mean of students' GPA.

We estimate with 90% confidence that _____ lies between the lower bound of the confidence interval and the upper bound of the confidence interval.

10 points Save Answer

QUESTION 9

Fill in the blanks in the following sentences about the differences between the Normal distribution and the Student-t distribution.

The Student-t distribution has more [ ] in its tails than the Normal distribution. You do not need to know the [ ] standard deviation to use the Student-t distribution. Graphs of the Normal distribution and the Student-t distribution look very similar. However, the exact shape of the Student-t distribution depends on the [ ]. As the number of degrees of freedom increases the Student-t distribution becomes more and more like the Normal distribution.

6 points Save Answer

QUESTION 10

If you have a binomial distribution you are dealing with a proportion problem.

- ○ True
- ○ False

2 points Save Answer

QUESTION 11

What is the proportion of international students in the following data?

Student	Undergraduate GPA	International
A	3.3	No
B	2.9	No
C	3.0	No
D	3.1	Yes
E	2.7	Yes
F	2.6	No
G	4.0	No
H	3.8	Yes
I	2.8	Yes
J	3.6	No

2 points Save Answer

QUESTION 12

A null hypothesis is typically an expression that says there is:

- ○ no such thing as a null hypothesis.
- ○ an analysis that will result in a null conclusion.
- ○ a big difference between variables or a big difference between the effect of variables.
- ○ no difference between variables or no difference in the effect of variables, i.e. they are not related.

10 points Save Answer

QUESTION 13

An [ ] hypothesis typically makes a claim about a population that contradicts the null hypothesis. We generally do not say anything about the alternative hypothesis. The conclusion to an analysis normally says that we [ ] or [ ] the null hypothesis. A null hypothesis always will be set up with an [ ] sign in it. The alternative hypothesis is setup as an [ ].

10 points Save Answer

QUESTION 14

This question assesses your understanding of Type 1 and Type II errors. A Type I error occurs when the decision is [ ] the null hypothesis even though it is true. This is sometimes called a false negative. A Type II error occurs when the decision is [ ] the null hypothesis when it is really false. This is sometimes called a false positive. Here are two examples of these types of errors.

An emergency crew thinks an accident victim is deceased when, in fact, he is actually still alive. This is a [ ] error.

An emergency crew thinks an accident victim is still alive when, in fact, she has already died. This is a [ ] error.

Alpha is the probability of a Type I error. Beta is the probability of a Type II error. The Power of the Test is 1 - [ ]. Note that increasing the sample size can increase the Power of the Test.

10 points Save Answer

Click Save and Submit to save and submit. Click Save All Answers to save all answers.

Save All Answers | Save and Submit