Final Exam (14711064)

Due: Mon, Dec 9, 2019 10:05 AM EST

Question 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Description

The test is open book, open notes but you cannot seek information from another individual or group or provide information to another individual or a group. You must submit the exam prior to leaving the classroom and must confirm this with the instructor.

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1. Question Details Final [4397466]

By admission to or attendance at the university, a student accepts the responsibility to comply with the SCOC (Student Code of Conduct) and the rules and policies of the University of Cincinnati. Every student is bound by the academic misconduct provisions of the SCOC which are enforced, in part, to assure academic integrity. Academic misconduct includes: aiding and abetting academic misconduct, cheating, fabricating information, plagiarizing, and violating ethical or professional standards.

By selecting "True" below, I certify that I understand and pledge to uphold the values of the SCOC and that I will neither give nor receive unauthorized aid in completing this and future academic assignments in this course.

- True
- False

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2. Question Details Final Use the attached Student Data and an Excel P [4397469]

Use the attached Student Data and an Excel PivotTable to determine the number of students who were born in August and have brown hair.

Student Data

46

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3. Question Details Final Using the attached Student Data, determine t [4397473]

Using the attached Student Data, determine the median of Height. Enter your answer rounded to two decimal places.

Student Data

70

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4. Question Details Final Using the attached Student Data, determine t [4397476]

Using the attached Student Data, determine the sample standard deviation of Height. Enter your answer rounded to two decimal places.

Student Data

4.25

5. Question Details Final Assume that you have applied to two graduate [4397478]

Assume that you have applied to two graduate schools, UC and Miami. The probability that you will be accepted at UC is 0.60 and the probability at Miami is 0.50. If the probability of being accepted at both schools is 0.20, what is the the probability of being accepted by at least one of the schools? (Enter your answer as a decimal rounded to two places.)

[ ] 0.90

6. Question Details Final In hypothesis testing, the tentative assumpt [4397498]

In hypothesis testing, the tentative assumption about the population parameter is

- None of these alternatives is correct.
- the alternative hypothesis
- the null hypothesis
- either the null or the alternative

7. Question Details Final For a given level of Type I error, if we wan [4397502]

For a given level of Type I error, if we want to decrease the level of Type II error, the sample size must

- increase.
- remain the same.
- decrease.
- increase or decrease since it has no impact on Type II error.

8. Question Details Final Exam. [4564635]

If you have a one-tail upper-tail hypothesis test and the test statistic is 7.84, generally the correct conclusion is

- inconclusive
- reject the null hypothesis
- do not reject the null hypothesis
- reject both hypotheses

9. Question Details Final Exam. [4564636]

A lathe is set to cut bars of steel into lengths of 6 centimeters. The lathe is considered to be in perfect adjustment if the average length of the bars it cuts is 6 centimeters. A sample of 100 bars is selected randomly and measured. It is determined that the average length of the bars in the sample is 6.08 centimeters. The population standard deviation is 0.44 centimeters. What is the test statistic for this problem? (Round the answer to two decimal places. [ ] 1.82

10. Question Details Quiz 9D & 10A - For a given level of Type I [4396721]

For a given level of Type I error, if we want to decrease the level of Type II error, the sample size must

- remain the same
- decrease
- increase or decrease since it has no impact on Type II error.
- increase

11. Question Details Final Exam. [4564637]

The manager of a grocery store has taken a random sample of 100 customers. The average length of time it took the customers in the sample to check out was 3.11 minutes with a standard deviation of 0.5 minutes. We want to test to determine whether or not the mean waiting time of all customers is significantly more than 3 minutes. If the test statistic is 2.2, what is the p-value associated with this hypothesis test?

(Round your answer to three decimal places.)

0.015

12. Question Details Final Exam. [4564639]

The following information was obtained from independent random samples taken of two populations. Assume that the populations are normally distributed.

	Sample 1	**Sample 2**
Sample Mean	47	42
Sample Variance	88	90
Sample Size	10	12

What is the value of the test statistic to determine if population 1 has a larger mean than population 2?

(Round the answer to three decimal places.)

1.238

13. Question Details Final Exam. [4564641]

The attached file shows the Excel output testing whether Airfares have increased in the Current Year as compared to the Previous Year. The correct conclusion is

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- There is sufficient evidence to conclude that prices have decreased.
- There is sufficient evidence to conclude that prices have increased.
- None of these conclusions are correct.
- There is not sufficient evidence to conclude that prices have increased.

14. Question Details Final Exam. [4564650]

You are tasked with explaining a sampling distribution to a class of 27 students. You first want to explain to them the number of different random samples of five students which can be selected from the class. What is the number?

80,730

15. Question Details Final Exam. [4564655]

The average GRE score at the University of Pennsylvania for the incoming class of 2016-2017 was 311. Assume that the standard deviation was 13.51. If you select a random sample of 40 students, what is the standard error of the mean? Round your answer to three decimal places.

2.136

16. Question Details Final Exam. [4564662]

In order to estimate the average time spent on the computer lab terminals per student at a local university, data were collected for a sample of 99 students over a one-week period. Assume the population standard deviation is 1.8 hours.

With a confidence coefficient of 0.99, the margin of error is

(Round your answer to three decimal places.)

0.466

17. Question Details Final Exam. [4564663]

A random sample of 100 SAT scores of students applying for merit scholarships showed an average of 1400 with a standard deviation of 249. Determine the upper limit of an interval estimate at a 90% confidence level. Round your answer to three decimal places.

1441.344

18. Question Details Final Exam. [4564664]

The average life expectancy of tires produced by the Whitney Tire Company has been 40,000 miles. Management is concerned that due to a new production process, the life expectancy of their tires has decreased. In order to test the validity of their belief, the correct set of hypotheses is

- H_0: the average life expectancy is less than or equal to 40,000; H_A: the average life expectancy is greater than 40,000
- H_0: the average life expectancy is greater than or equal to 40,000; H_A: the average life expectancy is less than 40,000
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- H_0: the average life expectancy is greater than 40,000; H_A: the average life expectancy is less than or equal to 40,000

19. Question Details Final Exam. [4564671]

For a normal distribution, how many standard deviations to the right of the mean results in only 2% of the values are greater than this number of standard deviations?
(Round your answer to two decimal places.)

2.054

20. Question Details Final Exam. [4564669]

A class of 40 students consists of 52.5% female students. A random sample of 8 students is selected from the class.

What is the probability that among the students in the sample at least four are female? (Round your answer to three decimal places.)

0.710

21. Question Details Final Exam. [4564668]

A basketball player steps to the line to shoot three free-throws. If her free-throw completion average is .92, and we assume her probability of completion is constant and each shot is independent, what is the probability that she completes at least two free-throws? (Round your answer to three decimal places.)

0.982

22. Question Details Final Exam. [4564667]

If you place a bet and the probability that you will win $30 is 0.05, the probability that you will win $10 is 0.3 and the probability that you will lose $5 is 0.65, then the expected value of this bet is:

(Enter your answer with two decimal places and no dollar sign.)

1.25

23. Question Details Final Exam. [4564666]

UC is playing basketball tonight and has a 0.80 probability of winning. XU is also playing and has a 0.70 probability of winning. Assuming that they are not playing each other, what is the probability that they both win?

(Enter your answer rounded to two decimal places.)

0.56

24. Question Details [4541400]

Suppose that we have two events, A and B, with $P(A) = 0.50$, $P(B) = 0.60$, and $P(A \cap B) = 0.40$.

(a) Find $P(A \mid B)$. (Round your answer to four decimal places.)

$P(A \mid B) =$ 0.6667

25. Question Details Final Exam. [4564674]

Your instructor has an Excel file that contains the letter grade of every student in the class. The letter grade is an example of a variable that uses the

- ratio scale.
- nominal scale.
- interval scale.
- ordinal scale.

26. Question Details Final Exam. [4564675]

A group of individuals are selected to participate in a drug study. The participants are randomly assigned to receive the new drug that is being evaluated or the current most effective approved drug. This study would be considered

- neither observational nor experimental.
- observational.
- experimental.
- both observational and experimental.

Assignment Details