

**East Los Angeles College**  
**Department of Mathematics**

**Math 227**

**Test 4**

**Show all work for credit**

A sample of 150 students reveal that 12% leave class early.

1. Use the 99% confidence level to determine the **margin of error** associated with the true proportion that leave early. **Hundredths**
2. Estimate the true proportion that leave early using the 99% confidence level. **Tenths**

A sample of 500 college students report taking a mean of 3.2 years and a standard deviation of 1.1 years to complete a Bachelor's Degree after transferring from a Community College.

3. Use the 95% confidence level to determine the **margin of error** associated with estimating the true mean years to complete a Bachelor's Degree. **Tenths**
4. Estimate the true mean using the 95% confidence level. **Hundredths**

A sample of 20 college students report a mean of 5.8 absences from lecture per academic year with a standard deviation of 2.5 absences.

5. Use the 90% confidence level to determine the **margin of error** associated with estimating the true mean. **Hundredths**
6. Use the 90% confidence level to estimate the true mean. **Tenths**
7. Use the 90% confidence level to estimate the true variance. **Tenths**
8. Use the 90% confidence level to estimate the true standard deviation. **Tenths**

Professor Snodgrass claims that the proportion of students who are late to lecture is 20%. A sample of 1000 college students report that 24% show up late for lecture.

9. What is the claim?
10. What is your critical value(s) using the 1% level of significance? **Hundredths**
11. What is your test statistic? **Hundredths**
12. What is your decision?

An online researcher claims that college students spend a mean of at least 6 hours per day on the internet. A sample of 250 college students report a mean of 4.8 hours with a standard deviation of 2.6 hours.

13. What is the claim?
14. What are your critical value(s) using the 10% level of significance? **Hundredths**
15. What is your test statistic? **Hundredths**
16. What is your decision?

Campers Digest claims that Honda generators last for a mean that's more than 12 hours of electricity on a single gallon of gasoline. A sample of 18 Honda generators last for 14.5 hours with a standard deviation of 3.1 hours.

17. What is the claim?
18. What are your critical value(s) using the 10% level of significance? **Hundredths**
19. What is your test statistic? **Hundredths**
20. What is your decision?

The following questions are to verify the points you earned in class.

21. What is your Test 1 Score?
22. What is your Test 2 Score?
23. What is your Test 3 Score?
24. What is your name?

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