

Elementary Statistics	Name: _____
Study Guide 24	Class: _____
Due Date: _____	Score: _____

Your solutions must be consistent with class notes & resources.

Be Neat, Organized, and No Work \Leftrightarrow No Points

1. (2 points) Complete the following chart for whenever testing a claim about one population proportion, what TI commands do you use to find the CV, CTS, and P-Value?

Testing One Population Proportion	TI Command
CV	
CTS & P-Value	

2. Given: $x = 85, n = 200, H_1 : p > 0.40, \alpha = 0.01$, claim: H_1

- (a) (2 points) Clearly state H_0 and H_1 , and identify the type of test.

H_0 : _____

H_1 : _____

- (b) (2 points) Find and name all related critical values, draw the distribution, and clearly mark and shade the critical region(s).

- (c) (2 points) Find the computed test statistic and the P-value.

C.T.S. : _____

P-Value : _____

- (d) (2 points) Use non-statistical terminology to express your final conclusion about the claim.

(d) _____

3. It has been reported that 65% of college students prefer e-textbooks over the traditional textbooks. A local agency randomly selected 320 college students and discovered that 215 of them share the same view. Test the validity of the report at $\alpha = 0.01$ by using the data collected by the local agency.

(a) (2 points) Clearly state H_0 and H_1 , and identify the claim and type of test.

H_0 : _____

H_1 : _____

(b) (2 points) Find and name all related critical values, draw the distribution, and clearly mark and shade the critical region(s).

(c) (2 points) Find the computed test statistic and the P-value.

C.T.S. : _____

P-Value : _____

(d) (2 points) Use non-statistical terminology to express your final conclusion about the claim.

(d) _____

4. Find the corresponding p -value. Drawing & Shading Required

(a) (2 points) Given: C.T.S. $z = -1.835$, and Left-Tail Test.

(a) _____

(b) (2 points) Given: C.T.S. $z = 1.835$, and Two-Tail Test.

(b) _____

5. The college claims that less than 8% of college students are left handed. I randomly selected 185 college students and discovered that 5% of them were left-handed. Test the validity of the claim at $\alpha = 0.02$ by using the data that I have collected.

(a) (2 points) Clearly state H_0 and H_1 , and identify the claim and type of test.

H_0 : _____

H_1 : _____

(b) (2 points) Find and name all related critical values, draw the distribution, and clearly mark and shade the critical region(s).

(c) (2 points) Find the computed test statistic and the P-value.

C.T.S. : _____

P-Value : _____

(d) (2 points) Use non-statistical terminology to express your final conclusion about the claim.

(d) _____

6. (4 points) Complete the following chart for whenever testing a claim about one population mean, what TI commands do you use to find the CV, CTS, and P-Value? Be very specific about your answers.

Testing One Population Mean	σ Known	σ Unknown
CV		
CTS & P-Value		

7. Given: $\bar{x} = 123, n = 63, \sigma = 10.75, H_1 : \mu \neq 115, \alpha = 0.04$, claim: H_0

(a) (2 points) Clearly state H_0 and H_1 , and identify the type of test.

H_0 : _____

H_1 : _____

(b) (2 points) Find and name all related critical values, draw the distribution, and clearly mark and shade the critical region(s).

(c) (2 points) Find the computed test statistic and the P-value.

C.T.S. : _____

P-Value : _____

(d) (2 points) Use non-statistical terminology to express your final conclusion about the claim.

(d) _____

8. Given: $\bar{x} = 80, n = 20, s = 7.45, H_1 : \mu < 85$, claim: H_1

(a) (2 points) Clearly state H_0 and H_1 , and identify the type of test.

H_0 : _____

H_1 : _____

(b) (2 points) Find and name all related critical values, draw the distribution, and clearly mark and shade the critical region(s).

(c) (2 points) Find the computed test statistic and the P-value.

C.T.S. : _____

P-Value : _____

(d) (2 points) Use non-statistical terminology to express your final conclusion about the claim.

(d) _____

You've come this far, you've learned this much, let's finish strong.