

CHAPTER 9 SOLUTION SHEET

Hypothesis Testing for Single Mean and Single Proportion

In words, CLEARLY describe what the population parameter μ or P represents:

In words, CLEARLY describe what the random variable \bar{X} or P' (for the sample statistic) represents:

STEP 1: a. H_0 : _____ H_a : _____

b. Significance Level α _____

STEP 2: c. Distribution to use for the test: $N(\text{____}, \text{____})$ OR t with $df = \text{____}$

STEP 3: Fill in the appropriate values for this problem

Proportions $x = \text{_____}$ $n = \text{_____}$ $p' = \text{_____}$

OR Mean: $\bar{x} = \text{_____}$; $\sigma = \text{_____}$ or $s = \text{_____}$

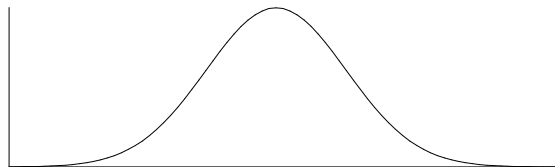
d. Test Statistic: indicate t or z and state its value: t or z (circle one) = _____

e. p -value = _____

f. In 1 – 2 complete sentences, explain what the p -value means for this problem.

Interpretation of p -value: _____

g. Use the previous information to sketch a picture of this situation. CLEARLY, label and scale the horizontal axis and shade and label the region(s) corresponding to the p -value.



STEP 4:

h. Indicate the decision (“reject H_0 ” or “do not reject H_0 ”), and the reason

alpha **decision** **reason for decision**

STEP 5: Write an appropriate conclusion, using COMPLETE SENTENCES.

Conclusion:

Confidence Interval for Single Mean and Single Proportion (Ch. 8)

Construct a Confidence Interval for the true population mean or proportion.

Use $CL = 1 - \alpha$ where α is the significance level you used for the hypothesis test.

Remember to use the appropriate t-score or z-score for the confidence level you are using. (Do NOT use the t or z value of the test statistic from the hypothesis test.)

$CL = \text{_____}$ Point Estimate: _____

Error Bound (*SHOW WORK to calculate*): _____

Confidence Interval:: (_____ , _____)

Interpretation of Confidence Interval:
