

The CEO of a large electric utility claims that 80 percent of his 1,000,000 customers are very satisfied with the service they receive. To test this claim, the local newspaper surveyed 100 customers, using simple random sampling. Among the sampled customers, 73 percent say they are very satisfied. Based on these findings, can we reject the CEO's hypothesis that 80% of the customers are very satisfied? Use a 0.05 level of significance.

1. State the Type of Hypothesis or the TI calculator function to be used (and any settings):
2. State the Null and Alternative Hypotheses:  
 $H_0$ :  
 $H_a$ :
3. List all the data entered into your calculator to find the test statistic, or state the formula used if solving by hand.
4. Provide the output of the calculator. If solving by hand, find the test statistic and convert this value to a P-value using your calculator or the table.
5. Graph the critical values and the test statistic on the normal distribution.

6. What is your conclusion based on the critical values/test statistic, or the significance levels/p-values? Do you reject the null or fail to reject the null?

7. Restate your conclusion in the context of the problem (circle your choice):

There IS/IS NOT sufficient evidence that the CEO of the utility company  
IS/IS NOT lying about the proportion of satisfied customers he has.