A survey of 700 hourly wages in the U.S. is taken and it is found that the mean hourly wage is $17.65 with a standard deviation of $7.55. Is this evidence sufficient to conclude that the mean hourly wage is greater than the stated current mean hourly wage of $17.20?

Answer this question by conducting a formal test of significance at the α = 0.05 level of significance.

NULL AND ALTERNATIVE HYPOTHESES

TEST STASTISTIC

CRITICAL REGION

DECISION AND IN-CONTEXT CONCLUSION

The NRA claims that 32% of all Americans own guns for protection of self/family. A survey of 300 gun owners is taken and 40% of those surveyed say that they have a gun for protection of self/family. Is this evidence sufficient to conclude that the true proportion of Americans who own guns for protection is different from 32%?

Answer this question by conducting a formal test of significance at the α = 0.1 level of significance.

NULL AND ALTERNATIVE HYPOTHESES

TEST STASTISTIC

CRITICAL REGION

DECISION AND IN-CONTEXT CONCLUSION

Given that α = 0.1, construct a 90% confidence interval estimate of the true proportion of Americans who own guns for protection. Can this information be used for the purpose of hypothesis testing?