

1. According to fueleconomy.gov, Volkswagen claims that their diesel vehicles have an average gas mileage of 29.5 miles per gallon in city driving. State the null hypothesis and alternative hypothesis in the context of the statement *and* symbolically.
2. According to the United States Department of Education, of those who graduated from high school from October 2005 to October 2006, 66% were attending college in October 2006. However, according to the Bureau of Labor Statistics, the percentage is lower. State the null hypothesis and alternative hypothesis in the context of the statement *and* symbolically.
3. The recommended daily allowance of sodium is 2400 mg. A nutritionist claims that one serving of ready-to-eat or add-water soup contains more than 800 mg of sodium, on average. State the null hypothesis and alternative hypothesis in the context of the statement *and* symbolically.
4. In 2004, 72% of Americans said that sex education should be taught in middle school. A Fox News correspondent believes that the percentage of Americans who say that sex education should be taught in middle school has increased. State the null hypothesis and alternative hypothesis in the context of the statement *and* symbolically.
5. In 2004, 72% of Americans said that sex education should be taught in middle school. A Fox News correspondent believes that the percentage of Americans who say that sex education should be taught in middle school is less than that in the southern United States. State the null hypothesis and alternative hypothesis in the context of the statement *and* symbolically.
6. According to an article on drivers.com, a Federal Highway Administration survey found that 55.8% of respondents admitted to running red lights. Based on this survey, the author of the article believes that the majority of drivers run red lights. State the null hypothesis and alternative hypothesis in the context of the statement *and* symbolically.
7. According to fueleconomy.gov, Volkswagen claims that their diesel vehicles have an average gas mileage of 29.5 miles per gallon in city driving. State in the context of the statement what it means to make a Type I error and a Type II error.
8. According to the United States Department of Education, of those who graduated from high school from October 2005 to October 2006, 66% were attending college in October 2006. However, according to the Bureau of Labor Statistics, the percentage is lower. State in the context of the statement what it means to make a Type I error and a Type II error.
9. The recommended daily allowance of sodium is 2400 mg. A nutritionist claims that one serving of ready-to-eat or add-water soup contains more than 800 mg of sodium, on average. State in the context of the statement what it means to make a Type I error and a Type II error.
10. In 2004, 72% of Americans said that sex education should be taught in middle school. A Fox News correspondent believes that the percentage of Americans who say that sex education should be taught in middle school has increased. State in the context of the statement what it means to make a Type I error and a Type II error.

11. In 2004, 72% of Americans said that sex education should be taught in middle school. A Fox News correspondent believes that the percentage of Americans who say that sex education should be taught in middle school is less than that in the southern United States. State in the context of the statement what it means to make a Type I error and a Type II error.
12. According to an article on drivers.com, a Federal Highway Administration survey found that 55.8% of respondents admitted to running red lights. Based on this survey, the author of the article believes that the majority of drivers run red lights. State in the context of the statement what it means to make a Type I error and a Type II error.
13. The recommended daily allowance of sodium is 2400 mg. A nutritionist claims that one serving of ready-to-eat or add-water soup contains more than 800 mg of sodium, on average. For her sample of 31 ready-to-eat or add-water soups, the average amount of sodium in one serving was 845.7 mg with a standard deviation of 168.3 mg. Is there sufficient evidence to conclude that one serving of ready-to-eat or add-water soup contains more than 800 mg of sodium, on average?
14. The recommended daily allowance of sodium is 2400 mg. A nutritionist claims that one serving of ready-to-eat or add-water soup contains less than 800 mg of sodium, on average. For her sample of 31 ready-to-eat or add-water soups, the average amount of sodium in one serving was 845.7 mg with a standard deviation of 168.3 mg. Is there sufficient evidence to conclude that one serving of ready-to-eat or add-water soup contains less than 800 mg of sodium, on average?
15. The recommended daily allowance of sodium is 2400 mg. A nutritionist claims that one serving of ready-to-eat or add-water soup contains other than 800 mg of sodium, on average. For her sample of 31 ready-to-eat or add-water soups, the average amount of sodium in one serving was 845.7 mg with a standard deviation of 168.3 mg. Is there sufficient evidence to conclude that one serving of ready-to-eat or add-water soup contains other than 800 mg of sodium, on average?
16. In 2004, 72% of Americans said that sex education should be taught in middle school. In a June 2009 Fox News poll of 900 registered voters, 75% responded that sex education should be taught in middle school. Is there sufficient evidence to conclude that the percentage of Americans who say that sex education should be taught in middle school has increased?
17. In 2004, 72% of Americans said that sex education should be taught in middle school. In a June 2009 Fox News poll of 900 registered voters, 75% responded that sex education should be taught in middle school. Is there sufficient evidence to conclude that the percentage of Americans who say that sex education should be taught in middle school has decreased?
18. In 2004, 72% of Americans said that sex education should be taught in middle school. In a June 2009 Fox News poll of 900 registered voters, 75% responded that sex education should be taught in middle school. Is there sufficient evidence to conclude that the percentage of Americans who say that sex education should be taught in middle school has changed?