

Math 153 - Quiz 10

May 5, 2016

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (3 points) A magazine would like to find a 90% confidence interval estimate for the proportion of readers who drive hybrid cars. How many readers should be in the magazine's random sample if a 3.5% margin of error is desired?
2. (3 points) A Gallup Poll of 30,000 employed adults found that 45.2% of them believe they have good jobs. Find a 85% confidence interval for the true population proportion. State your conclusion in a complete sentence.
3. (4 points) A simple random sample of regional gas prices gave the following data:

2.42, 2.29, 2.41, 2.26, 2.53, 2.21, 2.29, 2.42

Assuming that gas prices are normally distributed with a population standard deviation of 10 cents, find a 95% confidence interval estimate for the mean regional gas price. State your conclusion in a complete sentence.