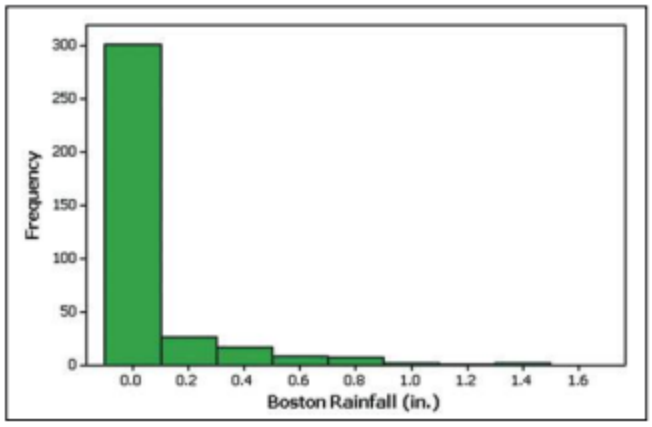
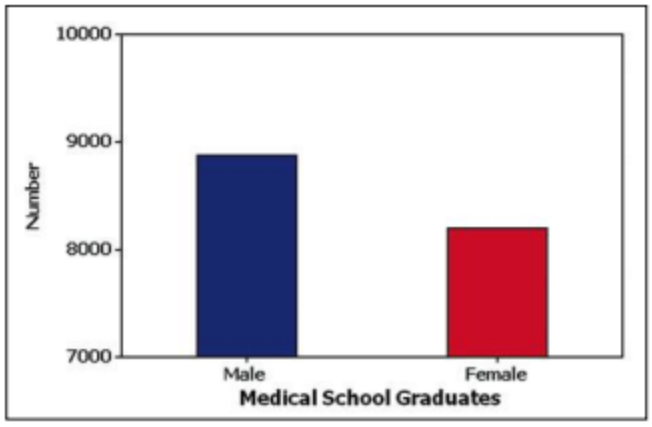
Based on the histogram, does it appear that the population satisfies the requirement of a normal distribution? Why or why not?



8. Analyzing Graph The accompanying graph depicts results from a recent year in which there were 8878 male graduates and 8203 female graduates from medical schools in the United States. Does the graph depict the data in a way that is fair and objective, or is it somehow deceptive? Explain.



9. Gun Survey In a recent Gallup poll, 1003 randomly selected adults in the United States were asked if they have a gun in their home, and 37.2% of them answered "yes."

a. What is the number of respondents who answered "yes"?

b. Construct a 95% confidence interval estimate of the percentage of all adults who would answer "yes" when asked if they have a gun in their home.

c. Based on a hypothesis test, can we safely conclude that less than 50% of adults answer "yes" when asked if they have a gun in their home? Why or why not?

d. What is a sensible response to the criticism that the Gallup poll cannot provide good results because the sample size is only 1003 adults selected from a large population of 241,472,385 adults in the United States?

10. Hypothesis Test for Gun Survey Refer to the survey results from Exercise 9 and use a 0.01 significance level to test the claim that fewer than 50% of Americans say that they have a gun in their home.