**2.8** Which type of data (nominal, ordinal, interval, ratio) is each of the following variables? Explain.

a. Number of employees in the Wal-Mart store in Hutchinson, Kansas.

b. Number of merchandise returns on a randomly chosen Monday at a Wal-Mart store.

c. Temperature (in Fahrenheit) in the ice-cream freezer at a Wal-Mart store.

d. Name of the cashier at register 3 in a Wal-Mart store.

e. Birth month of the cashier at register 3 in a Wal-Mart store.

f. Social security number of the cashier at register 3 in a Wal-Mart store

**2.16** Is each of the following a parameter or a statistic? If you are uncertain, explain the issues.

a. The average price/earnings ratio for all 500 stocks in the S&P index.

b. The proportion of all stocks in the S&P 500 index that had negative earnings last year.

c. The proportion of energy-related stocks in portfolios owned by 50 investors.

d. The average rate of return for stock portfolios recommended by 50 brokers

**8.2** Find the 95 percent range for the sample mean, assuming that each sample is from a normal

population.

a. *μ* = 200, *σ* = 12, *n* = 36

b. *μ* = 1,000, *σ* = 15, *n* = 9

c. *μ* = 50, *σ* = 1, *n* = 25

**8.6** Prof. Hardtack gave three exams last semester in a large lecture class. The standard deviation

*σ* = 7 was the same on all three exams, and scores were normally distributed. Below are scores

for 10 randomly chosen students on each exam. Find the 95 percent confidence interval for

the mean score on each exam. Do the confidence intervals overlap? If so, what does this suggest?

**Exams1**

*Exam* 1: 71, 69, 78, 80, 72, 76, 70, 82, 76, 76

*Exam* 2: 77, 66, 71, 73, 94, 85, 83, 72, 89, 80

*Exam* 3: 67, 69, 64, 65, 72, 59, 64, 70, 64, 56