Name _____ Date _____ Class_____
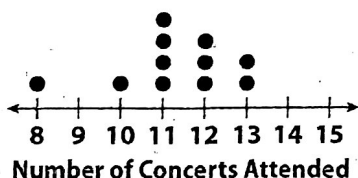
Making Inferences from a Random Sample
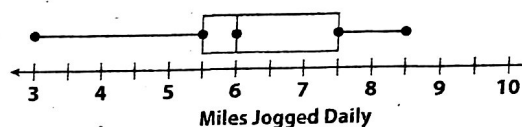*Practice and Problem Solving: A/B*

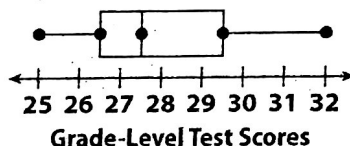**What can you infer about the population from each data set represented below?**

1.

8 9 10 11 12 13 14 15
Number of Concerts Attended

2.

3   4   5   6   7   8   9   10
Miles Jogged Daily

_____   _____

The box plots show the distribution of grade-level test scores of 20 students in an elementary school. Use the box plots for Exercises 3–6.

25 26 27 28 29 30 31 32
Grade-Level Test Scores

3. What were the high and low scores for the test?

4. The middle fifty percent of students scored between what two values?

_____   _____

5. Is 30 a typical test score? If so, explain your reasoning. If not, what is a typical test score?

_____

Solve.

6. A seventh-grade student chooses a random sample of 50 out of 400 students. He finds that 7 students have traveled outside the United States. The student claims that over 50 of the 400 students have likely traveled outside the United States. Is the student correct? Explain.

_____

7. A metal-fabricating company produces 150,000 souvenir tokens each year. In a random sample of 400 tokens, 3 have stamping errors. Predict the total number of coins that will have stamping errors in a year.

_____