**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

****

**Lesson 1: Your State of Statistics**

The term “statistics” has German and Latin origins with the word meaning: “of the state.” This definition is highly relevant when thinking about patient care. Health care laboratory professionals constantly need to know “the state” of their patients, instruments, reagents, and other materials. The application of statistics provides these professionals with this essential information to make their critical decisions. Are you ready to begin your review of statistics? Get started now to measure your state of statistical understanding.

**Doing the Science**

1. Open the “Quality Control” simulation.

2. Select the practice or test mode as directed by your professor.

3. Select the “Statistics” button on the screen.

4. Select the “Mean” button at the top of the screen.

5. Review the description and examples of the mean.

6. Repeat this process for the other three statistical buttons at the top of the screen.

**Do You Understand?**

1. In your own words, provide a simple definition for each of the following terms. Do *not* merely copy the definition presented in the on-screen information.

 a. mean

 b. standard deviation

2. The intelligence quotient (IQ) of humans follows a Gaussian distribution. A student makes the statement that the mean, mode, and median of IQ are indicated on the graph at the +1 standard deviation position on the *x*-axis. How would you respond to the student’s statement?

3. What value(s) is/are typically presented on the *y*-axis of a Levey-Jennings chart?