

## Real-Life Career Activity

### ***Clinical Research Statistician***

Clinical research statisticians collect and analyze data from clinical trials, such as tests on new medicines. They help design the research tests, analyze the results, and summarize the results using statistical terms such as mean, median, and mode. Their summaries help scientists decide whether a new medicine is effective or whether the product has too many side effects.

One clinical research study might record how much time a drug remains in a person's bloodstream. Suppose the researchers study 10 people and record the results in hours below.

16, 18, 19, 21, 21, 21, 22, 22, 24, 26

Suppose the statistician needs to find the mean, median, and mode of this set of data.

$$\text{mean} = \frac{(16 + 18 + 19 + 21 + 21 + 21 + 22 + 22 + 24 + 26)}{10}$$

$$= 21$$

$$\text{median} = \frac{(21 + 21)}{2}$$

$$= 21$$

$$\text{mode} = 21$$

The mean is 21 hours, the median is 21 hours, and the mode is 21 hours.

### ***Solve.***

1. Find the mean, median, and mode of this set of research data in hours:

21, 21, 22, 22, 25, 25, 26, 26, 26

2. Find the mean, median, and mode of this set of research data in hours:

25, 25, 26, 26, 27, 27, 27, 28, 29, 30

3. Find the mean, median, and mode of the three sets of research data

combined: 16, 18, 19, 21, 21, 21, 21, 22, 22, 22, 22, 24, 25, 25, 25, 25, 26, 26, 26, 26, 26, 26, 27, 27, 28, 29, 30

