Factors That Identify When to Compute the Mean
1. Objective: Describe a single set of data
2. Type of data: Interval
3. Descriptive measurement: Central location

Factors That Identify When to Compute the Median
1. Objective: Describe a single set of data
2. Type of data: Ordinal or interval (with extreme observations)
3. Descriptive measurement: Central location

Factors That Identify When to Compute the Mode
1. Objective: Describe a single set of data
2. Type of data: Nominal, ordinal, interval

Factors That Identify When to Compute the Geometric Mean
1. Objective: Describe a single set of data
2. Type of data: Interval; growth rates

Exercises

4.1 A sample of 12 people was asked how much change they had in their pockets and wallets. The responses (in cents) are

| 52 | 25 | 15 | 0 | 104 | 44 |
| 60 | 30 | 33 | 81 | 40 | 5 |

Determine the mean, median, and mode for these data.

4.2 The number of sick days due to colds and flu last year was recorded by a sample of 15 adults. The data are

| 5 7 0 3 15 6 5 9 |
| 3 8 10 5 2 0 12 |

Compute the mean, median, and mode.

4.3 A random sample of 12 joggers was asked to keep track and report the number of miles they ran last week. The responses are

| 5.5 7.2 1.6 22.0 8.7 2.8 |
| 5.3 3.4 12.5 18.6 8.3 6.6 |

a. Compute the three statistics that measure central location.
b. Briefly describe what each statistic tells you.

4.4 The midterm test for a statistics course has a time limit of 1 hour. However, like most statistics exams this one was quite easy. To assess how easy, the professor recorded the amount of time taken by a sample of nine students to hand in their test papers. The times (rounded to the nearest minute) are

| 33 29 45 60 42 19 52 38 36 |

a. Compute the mean, median, and mode.
b. What have you learned from the three statistics calculated in part (a)?

4.5 The professors at Wilfrid Laurier University are required to submit their final exams to the registrar's office 10 days before the end of the semester. The exam coordinator sampled 20 professors and recorded the number of days before the final exam