- 1. Consider the following three statements. Do they change the value printed for A?
  - a. A = "spam"
  - b. B = A
  - c. B = "shrubbery"
- 2. Consider these three statements. Do they change the printed value of A?
  - a. A = ["spam"]
  - b. B = A
  - c. B[0] = "shrubbery"
- 3. How about these—is A changed now?
  - a. A = ["spam"]
  - b. B = A[:]
  - c. B[0] = "shrubbery"
  - d.
- 4. Write a program that takes the name of an user. The program should respond with a message that says hello to the user, using his or her name.
- 5. Write a program that takes the width and length of a room. Once the values have been read, your program should compute and display the area of the room. The length and the width will be entered as floating point numbers. Include units in your prompt and output message; either feet or meters, depending on which unit you are more comfortable working with.
- 6. Write a program that reads a positive integer, *n*, from the user and then displays the sum of all of the integers from 1 to *n*. The sum of the first *n* positive integers can be computed using the formula:

$$sum = (n)(n + 1) / 2$$

- 7. Create a program that reads two integers, *a* and *b*, from the user. Your program should compute and display:
  - a. Sum of an b
  - b. Difference when b is subtracted from a
  - c. Product of a and b
  - d. Quotient when a is divided by b
  - e. Remainder when a is divided by b
  - f. Result of a power b
- 8. Many people think about their height in feet and inches, even in some countries that primarily use the metric system. Write a program that reads a number of feet from the user, followed by a number of inches. Once these values are read, your program should compute and display the equivalent number of centimeters.

Hint: One foot is 12 inches. One inch is 2.54 centimeters.