## **Chapter 8: Loops**

## **True/False**

- T F 1. Structures that execute a block of code repeatedly are called loops.
- T F 2. The part of a for loop that increments a control variable is the counter expression.
- T F 3. While loops are also called conditional loops.
- T F 4. A while loop continues to execute as long as the control expression is true.
- T F 5. A loop that executes without ever breaking is called a recursive loop.

## Fill-in-the-Blank

- 1. A for loop is one example of a(n) \_\_\_\_\_\_ structure.
- 2. A \_\_\_\_\_ loop will always execute the loop code at least once.
- 3. All loop structures test a(n) \_\_\_\_\_\_ expression to determine if the loop should continue.
- 4. A while loop that never terminates is called a(n) \_\_\_\_\_ loop.
- 5. A(n) \_\_\_\_\_\_ statement can be used to terminate a loop prematurely.

## **Multiple Choice**

- 1. Which of the following for loop statements will never execute its associated code?
  - a. for  $(x = 0; x \le 5; x++)$
  - b. for (x = 5; x != 5; x += 2)
  - c. for  $(x = 5; x \le 4; x \le 2)$
  - d. for (x = 5; x > 10; x++)
- 2. While and do while loops are both considered
  - a. selection structures.
  - b. controlled structures.
  - c. iteration structures.
  - d. step structures.
- 3. The first parameter of a for loop is called the
  - a. control expression.
  - b. initializing expression.
  - c. step expression.
  - d. set-up expression.
- 4. Which of the following while loops is incorrect?
  - a. while (  $alpha \ll 10$ )
  - b. while ( alpha == true)
  - c. while (!alpha)
  - d. while (alpha == false);
- 5. The continue statement can be used in a while loop to
  - a. jump to the next iteration of the loop.
  - b. terminate the loop.
  - c. pause the loop for 1 second and then resume.
  - d. none of the above.