

## CS 161

### Quiz 4 Solution

- 1) To \_\_\_\_\_ a value means to decrease it by one.

When you decrement a value, you decrease it by one. When you increment it, you increase it by one.

- 2) When the increment or decrement operator is placed after the operand (or to the operand's right), the operator is being used in \_\_\_\_\_ mode.

When an operator is after an operand, it is in **postfix** mode. When it is before an operand, it is in **prefix** mode.

- 3) Each repetition of a loop is known as an \_\_\_\_\_ of the loop.

An **iteration** is a repetition of a loop.

- 4) A loop that evaluates its test expression **after** each repetition is a \_\_\_\_\_ loop.

**Posttest** is when a loop evaluates its test expression after each repetition. **Pretest** is when it evaluates it before.

Both the while and for loop are pretest. The do/while loop is posttest.

- 5) A \_\_\_\_\_ is a variable that "counts" the number of times a loop repeats.

Variables that count the number of iterations of a loop are called **counters**.

- 6) The \_\_\_\_\_ loop is ideal for situations that require a counter.

The **for** loop is ideal for situations where you need a counter. The while loop is designed for more general situations where you want to repeat the loop until some condition changes.

- 7) The \_\_\_\_\_ and \_\_\_\_\_ loops will not iterate at all if their test expressions are false to start with.

Both the **for** and **while** loop are pre-test loops and test their conditions before iterating. If it is false, they will not execute the loop code.

- 8) A loop that is inside another is called a \_\_\_\_\_ loop.

When one loop is inside another, it is called a **nested** loop.

- 9) The \_\_\_\_\_ statement causes a loop to skip the remaining statements in the current iteration. It does not terminate the loop completely though.

The **continue** statement is used when you want to skip the remaining statements in the current iteration of a loop. The break statement is used when you want to completely terminate the loop.