

Worksheet #8

CS 1405

Instructor: Garth O. Sorenson

Name: _____

Score: _____

1. What are the three control flow mechanisms in C++?

- a. _____
- b. _____
- c. _____

2. What are the three logical operators and what are their names?

- a. _____
- b. _____
- c. _____

3. The expression used in a switch statement is called the controlling expression (or selector). What specific data types can be used as the selector?

4. What are the six relational operators?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____

5. Evaluate each expression if a is 5, b is 10, c is 15, and d is 0.

- a. $(c == (a + b)) \ || \ (c == d)$ _____
- b. $(a != 7) \ \&\& \ (c >= 6) \ || \ ((a + c) <= 20)$ _____
- c. $!(b <= 12) \ \&\& \ (a \% 2 == 0)$ _____
- d. $!((a > 5) \ || \ (c < (a + b)))$ _____

6. Given the following `if` statement:

```
if (x >= 0)
    if (y >= 0)
        cout << x + y;
    else
        cout << x - y;
else
    cout << y - x;
```

a. What is the output if $x = 5$ and $y = 5$?

b. What is the output if $x = 5$ and $y = -5$?

c. What is the output if $x = -5$ and $y = 5$?

7. Write an `if` statement that corresponds to the `switch` statement below.

```
switch (x > y)
{
case 1:
    cout << "x greater" << endl;
    break;
case 0:
    cout << "y greater or equal" << endl;
    break;
}
```