NAME: ________________________________

Please be advised that you are not allowed to check your books/notes/computers/phones and talk to each other during the quiz! Good luck!
Total number of points is 12.
Perfect score is 10.

1. Take a look at the code fragment below and write an expected output: (2pt.)

```cpp
int x = 16;
if (x < 10) {
    cout << “Yellow”;
} else {
    return 0;
    cout << “Blue”;
}
```

Answer:
Since $x$ was initialized to store as a value 16, it is not less than 10, condition for if is false so we go into else statement. Next statement to be executed is return 0; meaning the program terminates, no output.

2. Write an expected output for each statement below (a)-(d) (2pt. each)

```cpp
int x = 17;
cout << x % 2 << endl;
(a) Answer: 1 (only 16 out of 17 is divisible by 2, remainder is 1 (17-16))

cout << x % 100 << endl;
(b) Answer: 17 (no part of 17 is div. by 100, remainder is 17)

cout << x / 2 << endl;
(c) Answer: 8 (17/2 is 8.5, but since x is of integer type, no fractions will be stored, 0.5 is cut off, 8 left only)

cout << x + 3 / 2 << endl;
(d) Answer: 18 (division is of higher precedence, 3/2 is 1.5, but since they are both integers, no fraction will be stored, 1 only, finally 17 + 1 is 18)
```

3. Evaluate the following code fragment, what will be an output if you compile and run it (assume all necessary libraries were included and program compiles w/o errors)? (2pt.)

```cpp
while (1) {
    cout << “bye”;
}
```

Answer:
1 means true, true will always stay true, this is an example of infinite loop, bye will be printed repeatedly until computer runs out of memory.