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 a code fragment below and write an expected output (2 points):

```cpp
int x = 6;
if (x % 3 == 0) {
    exit(0);
    cout << “Yellow”;
} else {
    cout << “Blue”;
}
```

Answer:
x was initialized as 6, 6 is divisible by 3 without any remainder, so the condition for if will be true. Next statement is exit(0), meaning the program terminates, no output.

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

```cpp
int x = 13;
cout << x % 2 << endl;
(a) Answer: 1 (only 12 out of 13 is divisible by 2, the remainder is 1)

cout << x % 10 << endl;
(b) Answer: 3 (only 10 out of 13 is divisible by 10, the remainder is 3)

cout << x / 2 << endl;
(c) Answer: 6 (13/2 is 6.5, but since x was declared as an integer, 0.5 will not be saved, 6 only)

cout << x + 3 / 2 << endl;
(d) Answer: 14 (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 (true) {
    cout << “bye”;
}
```

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