CSci 1113
Quiz

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Instructions: Please pick and answer any 2 of the 3 problems for a total of 20 points. If you answer more than 2 problems, only the first 2 will be graded. The time limit is 15 minutes. Please write your answers in the space provided. The exam is open book and notes. You may use electronic devices to ONLY look at either an e-book version or electronic notes. You may not use the internet, compiler or any other outside resources. (If you are typing on your keyboard/input device for anything other than ctrl-F to find words in the e-book or notes, this is probably not acceptable.)

Problem (1) [10 points] Consider the following if-statement. In each sub-part, for the given values, answer whether the code inside if-statment will run or not.

```
if( x%10 == y%5 || x*x > 5*y || (x == y+3 && x > y && sqrt(x) > exp(-y)
&& pow(x,y) > pow(x,3)))
```

(a) x = 5, y = 5

(b) x = 7, y = 2

(c) x = 2, y = 7

(d) x = 13, y = 4

(e) x = 3, y = 0

Problem (2) [10 points] Write C++ code that allows the user to enter the dimensions of a rectangle in the following format: [length]x[width]. Then display the area of the defined rectangle. For example, if the user enters "3.5x2" you should output an area of 7.

Problem (3) [10 points] Find 3 errors in the code below. Assume that the code is completely shown except for #includes and "using namespace std". For each error, identify whether it is a runtime error, syntax error or logic error. You must also precisely describe why you think the part of code you identify is an error.

```cpp
int main() {
    char name;
    cout << "What is your name?\n";
    cin >> name;
    cout << "How old are you?\n";
    cin >> age;
    if(20 < age);
        cout << "Bottoms up name";
}
```