

Fall '10 CIS 122 Midterm Review

You may bring one page of notes, front and back.

You may bring a calculator but shouldn't need one.

Questions will be in short-answer format with partial credit for partial answers.

Questions will require you to read C++ code.

You will not be asked to write C++ code, but may be asked to write pseudocode (i.e., code that unambiguously describes your solution but is not required to compile).

You will not be asked questions about functions declared in predefined headers (e.g., `iostream`, `cmath`).

Topics:

- Variables: `int`, `char`, `double`, `bool` types, declaration, assignment
- Arithmetic operators: `+`, `-`, `*`, `/`, `%`, `+=`, `-=`, `*=`, `/=`, `%=`, `++`, `--`
- Boolean operators: `<`, `<=`, `==`, `>=`, `>`, `&&`, `||`
- Conditional statements: `if`, `else if`, `else`
- Looping statements: `while`, `do while`, `for`
- Functions: declaration, prototypes, signatures, return types, pass by value, pass by reference

Sample questions:

1. [10] Consider the following code:

```
for (int i = 0; i < 10; ++i)
    cout << "Hello!" << endl;
```

How many times will the code print "Hello!" when executed?

2. [10] Consider the following code:

```
int main() {
    for (int i = 0; i < 10; ++i) {
        ++i;
    }
    return 0;
}
```

The code will not compile. Why?