So Long, and Thanks For All The C++ Advice At The UCF Local Programming Contest

Contest Conventions:

Each problem in this contest will have a filename printed at the top of the problem's specification, under the title. This filename must be used to name the file containing your solution's source code. For example, if a problem's filename is `problem`, your C++ solution must be in a file named `problem.cpp`. Your C++ source file may contain multiple classes, methods, and functions but should contain only one `main` function, which should return 0 (zero). You may not submit more than one source file for a problem.

Your solution program must read the problem's input from the *standard input stream*. In C++, this is the built-in object `cin`, in the `std` namespace. Correspondingly, your program must write its output to the *standard output stream*, for which C++ provides `std::cout`. A few brief samples are provided below. Any other input or output could result in your solution being judged incorrect, so stick to these guidelines. If you are a Java™ or ANSI C programmer, please see the corresponding version of this document.

Example Use of the Standard Input Stream:

To use C++ streams, first include the appropriate declaration file. For simplicity, it also helps to set the namespace.

```
#include <iostream>
using namespace std;
```

To extract data from the built-in `cin` stream, use the `>>` operator. Note that this operation uses whitespace in the input as the delimiter.

```
int i;
double d;
string s;

cin >> i;
cin >> d;
cin >> s;
// cin >> i >> d >> s; would have the same effect
```

You can read an entire line of text at a time from the stream using the `getline` function:

```
string line;
getline(cin, line);
```

When you reach end-of-stream, `getline` will return a false value. Note that `getline` is declared in `<string>`, in the `std` namespace.

Example Use of the Standard Output Stream:

The C++ standard output stream is accessed through the `cout` identifier. Use the `<<` operator to produce output. These are declared in `<iostream>` in the `std` namespace. For more information on controlling stream output formatting, please see your C++ reference manual.

```
int i;
double d;
string s;
...
cout << i << " " << d << " " << s << endl;  // endl or "\n"
```