Predict the Output

25. What will the following programs print on the screen?

A)
```
#include <iostream>
using namespace std;
int main()
{
   int freeze = 32, boil = 212;
   freeze = 0;
   boil = 100;
   cout << freeze << endl << boil << endl;
   return 0;
}
```

B)
```
#include <iostream>
using namespace std;
int main()
{
   int x = 0, y = 2;
   x = y * 4;
   cout << x << endl << y << endl;
   return 0;
}
```

C)
```
#include <iostream>
using namespace std;
int main()
{
   cout << "I am the incredible";
   cout << "computing\nmachine";
   cout << "\nand I will\namaze\n";
   cout << "you.\n";
   return 0;
}
```

26. A)
```
#include <iostream>
using namespace std;

int main()
{
   cout << "Be careful!\n";
   cout << "This might/n be a trick ";
   cout << "question.\n";
   return 0;
}
```

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

int main()
{
   int a, x = 23;
   a = x % 2;
   cout << x << endl << a << endl;
   return 0;
}
```

Find the Error

27. The following program contains many syntax errors. Locate as many as you can.

```
1. */ What's wrong with this program? /*
2. #include iostream
3. using namespace std;
4.
5. int main();
6. }
7.    int a, b, c    \\ Define 3 integers
8.    a = 3
9.    b = 4
10.   c = a + b
11.   Cout >> "The value of c is " >> C;
12.   return 0;
13. {
```

Soft Skills

Programmers need good communication skills as well as good analytical and problem-solving skills. Good communication can minimize misunderstandings that easily arise when expectations of different individuals involved in a project are not clearly enough articulated before the project begins. A detailed set of project specifications can clarify the scope of a project, what interaction will occur between the user and the program, and exactly what the program will and will not do.

28. Pair up with another student in the class. One of you is the client and the other is the software developer. Briefly discuss a simple program the client wants the programmer to create. Here are some possible ideas.

    - The paint problem described in the Chapter 1 Soft Skills exercise
    - A program that can halve the quantities of ingredients for a recipe
    - A program that determines how long it will take to drive from point A to point B

Once you have decided on a program, you should independently, with no further communication, each write down detailed specifications. The client writes down exactly what he wants the program to do, and the developer writes down her understanding of exactly what the program will do. When you are done, compare what you have written. Rarely will the two agree.

Now discuss the discrepancies and see if you can come to a clear understanding of exactly what the program must do. Together create a program specification sufficiently detailed that both of you believe it leaves no room for misunderstanding.