**1. New lines**

Copy and paste the following program into your codeblocks and modify it so it prints two blank lines between each line of text (a line of text ends with the character '.'):

#include <iostream>  
using namespace std;  
  
int main()  
{  
    cout << "Danang is a very nice";  
    cout << "city.";  
    cout << "It is located in central ";  
    cout << "Vietnam. A truly original dish";  
    cout << " of Danang is Mi Quang.";  
      
    return 0;  
}

**2. Program output**

Try to guess what the following program will output and check your answer by copying and pasting it to your codeblocks:

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

**3. Syntax errors**

There are a number of syntax errors in the following program. Locate as many as you can and check your answer by compiling and running the corrected version in your codeblocks:

\*/ What's wrong with this program? /\*  
#include iostream  
using namespace std;  
  
int main();  
}  
    int a, b, c \\ Three integers  
    a = 3  
    b = 4  
    c = a + b  
    Cout < "The value of c is " < C < end;  
  
    return 0;  
{

**4. Average of Values**

To get the average of a series of values, you add the values up and then divide the sum by the number of values. Write a program that stores the following values in **five** different variables: 28, 32, 37, 24, and 33. The program should first calculate the sum of these five variables and store the result in a separate variable named **sum**. Then, the program should divide the sum variable by 5 to get the average and display it on the screen.

**5. Miles per Gallon**

A car holds 15 gallons of gasoline and can travel 380 miles before refueling. Write a program that calculates the number of miles per gallon the car gets and displays the result on the screen. The quantity of gasoline (15 gallons) and the distance (380 miles) should be stored as **integer** (i.e. in variables of type int) but the result (number of miles per gallon) should be a floatting-point number.

**6. Diamond Pattern**

Write a program that displays the following pattern on the screen:

   \*  
  \*\*\*  
 \*\*\*\*\*  
\*\*\*\*\*\*\*  
 \*\*\*\*\*  
  \*\*\*  
   \*

**7. Data Type size**

In order to accomplish some calculations, you need to know how many bytes the following data types use: char, int, float, and double. You do not have any manuals, so you can’t look this information up. Write a C++ program that will determine the amount of memory used by these types and display the information on the screen.