

```
// Program SumDigits.cpp prompts for and reads a one-digit number.
// Values between 0 and the digit (inclusive) are summed.
```

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

```
int main ()
{
    int counter;// loop-control variable
    int sum;      // running sum
    int digit;

    cout << "Enter a one-digit number; press return."
        << endl;
    cin >> digit;
    counter = /* TO BE FILLED IN */
    sum = /* TO BE FILLED IN */

    while ( ) /* TO BE FILLED IN */
    {
        /* TO BE FILLED IN */
    }
    cout << "Sum of digits between 0 and "
        << digit << " is " << sum << endl;
    system("PAUSE");
    return 0;
}
```

```
// Program Shell1.cpp counts the number of uppercase letters on a line.
// The line must end with a period
```

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

```
int main ()
{
    char letter;
    int letterCt=0;

    cout<<"Type in a bunch of characters ending with a period."<<endl;
    cin>>letter;

    while ( ) /* TO BE FILLED IN */
    {
        /* TO BE FILLED IN */
    }
    cout<<"For the characters entered the number of uppercase letters is
"<<letterCt<<endl;
    system("PAUSE");
    return 0;
}
```

```
// Program CountMarks.cpp counts punctuation marks in a file.
```

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

```

int main ()
{
    ifstream inData;
    char symbol;
    int periodCt = 0;
    int commaCt = 0;
    int questionCt = 0;
    int colonCt = 0;
    int semicolonCt = 0;
    inData.open("switch.dat");
    /* FILL IN */

    system("PAUSE")
    return 0;
}
/*data file switch.dat contains
There are lots of symbols in this file:  ..;;;??
.,.,.,?:::  .
*/

//*****
// This program NotEqual.cpp counts the occurrences of "!=" in a data file
//*****
#include <iostream>
#include <fstream>          // For file I/O
using namespace std;

int main()
{
    int    count;           // Number of != operators
    char   prevChar;        // Last character read
    char   currChar;        // Character read in this iteration
    ifstream inFile;        // Data file

    inFile.open("myfile.dat"); // Attempt to open file
    if ( !inFile )
    { // If file wouldn't open, print message, terminate program
        cout << "Can't open input file" << endl;
        return 1;
    }
    count = 0;              // Initialize counter
    inFile.get(prevChar);    // Initialize previous value
    inFile.get(currChar);    // Initialize current value
    while (inFile)          // While input succeeds . . .
    {
        if (currChar == '=' &&    // Test for !=
            prevChar == '!')
            count++;             // Increment counter
        prevChar = currChar;     // Update previous value to current
        inFile.get(currChar);    // Get next value
    }
    cout << count << " != operators were found." << endl;
    system("PAUSE");
    return 0;
}

```

contents of myfile.dat

```

<= !!! === != ! = !=

```