Most often, test-condition is a relational expression such as those used to control loops. Suppose, for example, you want a program that counts the spaces in the input as well as the total number of characters. You can use cin.get(char) in a while loop to read the characters and then use an if statement to identify and count the space characters. Listing 6.1 does just that, using the period to recognize the end of a sentence.

Listing 6.1 if.cpp

```cpp
// if.cpp -- using the if statement
#include <iostream>
using namespace std;
int main()
{
    char ch;
    int spaces = 0;
    int total = 0;
    cin.get(ch);
    while (ch != '.')   // quit at end of sentence
    {
        if (ch == ' ')  // check if ch is a space
            spaces++;
        total++;        // done every time
        cin.get(ch);
    }
    cout << spaces << " spaces, " << total;
    cout << " characters total in sentence\n";
    return 0;
}

Here's some sample output:

The balloonist was an airhead with lofty goals.
```