

```
1  #include <iostream>
2  using namespace std;
3
4  int linearSearch( const int [], int ,int );
5
6  int main()
7  {
8      const int arraySize = 100;
9      int a[arraySize];
10     int searchKey;
11     for (int i = 0; i < arraySize; i ++) //original problem
12     {
13         a[i] = 2*i;
14     }
15     cout << "Enter integer search key";
16     cin >> searchKey;
17
18     int element = linearSearch(a, searchKey, arraySize);
19
20     if ( element != -1)
21         cout << "Found value in element " << element << endl;
22     else
23         cout <<"Value not found " << endl;
24     return 0;
25 }
26
27 int linearSearch( const int array[], int key ,int sizeOfArray)
28 {
29     if ( key == array[sizeOfArray-1] )
30         return sizeOfArray-1;
31     else
32     {
33         if ( sizeOfArray>1 )
34             linearSearch (array, key, sizeOfArray-1);
35         else
36             return -1;
37     }
38 }
39
40
```

C:\devcpp\hw13\hw13-2\13-2.exe

Enter integer search key16
Found value in element 8

Process exited after 39.82 seconds with return value 0
請按任意鍵繼續 . . .