```cpp
1  using namespace std;
2  #include <iostream>
3
4  void separation(int nrElem, int *&initialList, int &positivesCounter, int
     *&potivesList, int &negativesCounter, int *&negativesList)
5  {
6      positivesCounter = 0;
7      negativesCounter = 0;
8      for (int i = 0; i < nrElem; i++)
9      {
10         if (initialList[i] >= 0)
11         {
12             positivesCounter++;
13         }
14         else
15         {
16             negativesCounter++;
17         }
18     }
19
20     potivesList = new int[positivesCounter];
21     negativesList = new int[negativesCounter];
22
23     int k = 0, h = 0;
24
25     for (int i = 0; i < nrElem; i++)
26     {
27         if (initialList[i] > 0)
28         {
29             potivesList[k++] = initialList[i];
30         }
31         else
32         {
33             negativesList[h++] = initialList[i];
34         }
35     }
36
37     delete[]initialList;
38
39 }
40
41 void main()
42 {
43     int i, nrElem, positivesCount, negativesCount, *elementsArray,
         *positivesArray, *negativesArray;
44     cout << "Number of elements in the array : ";
45     cin >> nrElem;
46     elementsArray = new int[nrElem];
47     cout << "Enter elements of the array " << endl;
48     for(i = 0; i < nrElem; i++)
49     {
50         cout << "a[" <<i + 1<< "]= ";
```

```cpp
51            cin >> elementsArray[i];
52        }
53        separation(nrElem, elementsArray, positivesCount, positivesArray,
            negativesCount, negativesArray);;//seding by reference
54        cout << "The list of positive numbers: ";
55        for (i = 0; i < positivesCount; i++)
56        {
57            cout << positivesArray[i] << " ";
58        }
59        cout << endl << "The list of negative numbers: ";
60        for (i = 0; i < negativesCount; i++)
61        {
62            cout << negativesArray[i] << " ";
63        }
64        cout << endl;
65        delete[]positivesArray;
66        delete[]negativesArray;
67        cin.get(); // wait for keypress
68    }
```