BUBBLE SORT:

```cpp
1  #include<iostream>
2  using namespace std;
3  void swapping(int &a, int &b) {      //swap the content of a and b
4     int temp;
5     temp = a;
6     a = b;
7     b = temp;
8  }
9  void display(int *array, int size) {
10    for(int i = 0; i<size; i++)
11       cout << array[i] << " ";
12    cout << endl;
13 }
14 void bubbleSort(int *array, int size) {
15    for(int i = 0; i<size; i++) {
16       int swaps = 0;          //flag to detect any swap is there or not
17       for(int j = 0; j<size-i-1; j++) {
18          if(array[j] > array[j+1]) {       //when the current item is bigger than next
19             swapping(array[j], array[j+1]);
20             swaps = 1;   //set swap flag
21          }
22       }
23       if(!swaps)
24          break;       // No swap in this pass, so array is sorted
25    }
26 }
```

```cpp
20 }
27 int main() {
28    int n;
29    cout << "Enter the number of elements: ";
30    cin >> n;
31    int arr[n];    //create an array with given number of elements
32    cout << "Enter elements:" << endl;
33    for(int i = 0; i<n; i++) {
34       cin >> arr[i];
35    }
36    cout << "Array before Sorting: ";
37    display(arr, n);
38    bubbleSort(arr, n);
39    cout << "Array after Sorting: ";
40    display(arr, n);
41 }
```

OUTPUT:

```
Enter the number of elements: 10
Enter elements:
5
8
7
45
12
30
9
6
41
1
Array before Sorting: 5 8 7 45 12 30 9 6 41 1
Array after Sorting: 1 5 6 7 8 9 12 30 41 45


...Program finished with exit code 0
Press ENTER to exit console.
```