

## Bubble sort

```
#include <stdio.h>
#include <math.h>

int main()
{
    int a[] = {16, 19, 11, 15, 10, 12, 14};
    int i,j;

    //repeating loop 7 (number of elements in the array) times
    for(j = 0; j<7; j++)
    {
        //initially swapped is false
        int swapped = 0;
        i = 0;
        while(i<7-1)
        {
            //comparing the adjacent elements
            if (a[i] > a[i+1])
            {
                //swapping
                int temp = a[i];
                a[i] = a[i+1];
                a[i+1] = temp;
                //Changing the value of swapped
                swapped = 1;
            }
            i++;
        }
        //if swapped is false then the array is sorted
        //we can stop the loop
        if (!swapped)
            break;
    }

    for(i=0;i<7;i++)
        printf("%d\n",a[i]);

    return 0;
}
```

