

grep Command

```
echo "length of array"
read n

for (( i=0;i<n;i++))
do
    read a[i]
done

bubble=1

while(( bubble))
do
    bubble=0
    for (( i=0;i<(n-1);i++))
    do
        #echo $i
        #echo $((a[i]))
        #echo $((a[i+1]))
        if ((a[i]>a[i+1]))
        then
            echo "swapped $((a[i])) and $((a[i+1]))"
            temp=$((a[i]))
            a[i]=$((a[i+1]))
            a[i+1]=$temp
            bubble=1
        fi
    done
    echo ${a[*]}
done

echo ${a[*]}
```

Output

```
42813@user:/mnt/42813/oslab/latex/programs/1$ bash bubble.sh
length of array
5
5
3
7
3
2
swapped 5 and 3
swapped 7 and 3
swapped 7 and 2
```

```
3 5 3 2 7
swapped 5 and 3
swapped 5 and 2
3 3 2 5 7
swapped 3 and 2
3 2 3 5 7
swapped 3 and 2
2 3 3 5 7
2 3 3 5 7
2 3 3 5 7
```