Highest number:

#include<stdio.h>

int main(){

int a[100],i,n;

scanf("%d",&n);

for(i=0;i<n;i++){

scanf("%d",&a[i]);

}

for(i=0;i<n;i++){

if (a[0] < a[i]) {

a[0] = a[i];

}

}

printf("%d",a[0]);

}

Binary Search:

#include <stdio.h>

int binarySearch(int [], int, int, int);

int main()

{

int c, first, last, n, search, array[100], index;

scanf("%d", &n);

scanf("%d", &search);

for (c = 0; c < n; c++)

scanf("%d", &array[c]);

first = 0;

last = n - 1;

index = binarySearch(array, first, last, search);

if (index == -1)

printf("false");

else

printf("true");

return 0;

}

int binarySearch(int a[], int s, int e, int f) {

int m;

if (s > e)

return -1;

m = (s + e)/2;

if (a[m] == f)

return m;

else if (f > a[m])

return binarySearch(a, m+1, e, f);

else

return binarySearch(a, s, m-1, f);

}

**Swap Count:**

#include<stdio.h>

int main()

{

int t,n,a[50];

scanf("%d",&t);

while(t--)

{

scanf("%d",&n);

for(int i=0;i<n;i++)

{

scanf("%d",&a[i]);

}

int swap=0;

for(int k=0;k<n;k++)

{

for(int j=0;j<n-1;j++)

{

if(a[j+1]<a[j])

{

int temp=a[j];

a[j]=a[j+1];

a[j+1]=temp;

swap++;

}

}

}

printf("Optimal train swapping takes %d swaps.\n",swap);

}

return 0;

}