Programs on Arrays:

1.Write a program to read and print the array

#include<stdio.h>

#include<conio.h>

Void main()

{

int a[10],n,i;

scanf(“%d”,&n);

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

{

scanf(“%d”,&a[i]);

printf(“%d\t”,a[i]);

}

}

Output:

5

1 2 3 4 5

1 2 3 4 5

2. Write a program to count number of elements in an array

#include<stdio.h>

void main()

{

int a[10],n,i,count=0;

scanf("%d",&n);

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

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

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

{

count++;

}

printf("%d",count);

}

Output:

1 2 3 4 5

5

3. Write a program to print sum of elements in an array

#include<stdio.h>

void main()

{

int a[10],i,n,sum=0;

scanf("%d",&n);

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

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

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

{

sum=sum+a[i];

}

printf("%d",sum);

}

Output:

5

1 2 3 4 5

15

4.write a program to print the given number is present in an array or not

#include<stdio.h>

void main()

{

int a[10],i,n,key,flag=0;

scanf("%d",&n);

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

{

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

}

printf("Enter the key element :");

scanf("%d",&key);

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

{

if(a[i]==key)

{

flag=1;

break;

}

}

if(flag==1)

printf("Key element is present");

else

printf("Key element is not present");

}

Output:

5

1 2 3 4 5

Enter the key element:4

Key element is present

5. Write a program to remove duplicate element in an array

#include<stdio.h>

void main()

{

int a[100],n,i,j,k;

scanf("%d",&n);

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

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

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

{

for(j=i+1;j<n;j++)

{

if(a[i]==a[j])

{

for(k=j;k<n;k++)

{

a[k]=a[k+1];

}

j--;

n--;

}

}

}

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

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

}

Output:

5

1 2 3 3 4

1 2 3 4

6.Write a program to print the array elements in ascending order order

#include<stdio.h>

void main()

{

int a[10],i,j,n,key;

scanf("%d",&n);

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

{

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

}

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

{

for(j=i+1;j<n;j++)

{

if(a[i]>a[j])

{

key=a[i];

a[i]=a[j];

a[j]=key;

}

}

}

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

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

}

Output:

5

4 3 2 1 9

1 2 3 4 9

7.Write a program to print given array in decending order

#include<stdio.h>

void main()

{

int a[10],i,j,n,key;

scanf("%d",&n);

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

{

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

}

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

{

for(j=i+1;j<n;j++)

{

if(a[i]<a[j])

{

key=a[i];

a[i]=a[j];

a[j]=key;

}

}

}

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

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

}

Output:

5

1 2 3 4 5

5 4 3 2 1

8.Write a program to display array elements in reverse order

#include<stdio.h>

void main()

{

int a[10],i;

scanf("%d",&n);

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

{

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

}

for(i=n-1;i>=0;i--)

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

}

Output:

5

1 9 7 8 5

5 8 7 9 1

9.Write a program to insert an element in an array

#include<stdio.h>

void main()

{

int a[10],n,i,pos,value;

scanf("%d",&n);

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

{

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

}

printf("Enter the position :");

scanf("%d",&pos);

printf("Enter the value to be inserted :");

scanf("%d",&value);

for(i=n-1;i>=pos-1;i--)

{

a[i+1]=a[i];

a[pos-1]=value;

}

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

printf("%d\t",a[i]);

}

Output:

5

1 2 3 4 5

Enter the position:3

Enter the value to be inserted:6

1 2 6 3 4 5

10.Write a program to print largest element in an array

#include<stdio.h>

void main()

{

int a[10],n,i,large;

scanf("%d",&n);

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

{

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

}

large=a[0];

for(i=1;i<n;i++)

{

if(large<a[i])

large=a[i];

}

printf("%d",large);

}

Output:

5

5 6 9 4 2

9

11.Write a program to print smallest element in an array

#include<stdio.h>

void main()

{

int a[10],n,i,small;

scanf("%d",&n);

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

{

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

}

small=a[0];

for(i=1;i<n;i++)

{

if(small>a[i])

small=a[i];

}

printf("%d",small);

}

Output:

6

3 4 5 1 6 7 8

1