1. Write a function to find the greatest number from the given array of any size. (TSRS)

Ans #include<stdio.h>

int great(int b[],int n)

{

int i,max=-99999;

for(i=0;i<=n-1;i++)

{

if(max<b[i])

max=b[i];

}

return max;

}

int main()

{

int a[100],i,n;

printf("Enter the size of array: ");

scanf("%d",&n);

printf("Enter the values of array: ");

for(i=0;i<=n-1;i++)

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

printf("Greatest number is %d",great(a,n));

return 0;

}

2. Write a function to find the smallest number from the given array of any size. (TSRS)

Ans #include<stdio.h>

int small(int b[],int n)

{

int i,min=99999;

for(i=0;i<=n-1;i++)

{

if(min>b[i])

min=b[i];

}

return min;

}

int main()

{

int a[100],i,n;

printf("Enter the size of array: ");

scanf("%d",&n);

printf("Enter the values of array: ");

for(i=0;i<=n-1;i++)

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

printf("Smallest number is %d",small(a,n));

return 0;

}

3. Write a function to sort an array of any size. (TSRN)

Ans #include<stdio.h>

void sort(int a[],int n)

{

int i,j,x;

for(i=0;i<=n-2;i++)

{

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

{

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

{

x=a[i];

a[i]=a[j];

a[j]=x;

}

}

}

for(i=0;i<=n-1;i++)

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

}

int main()

{

int a[100],i,n;

printf("Enter the size of array: ");

scanf("%d",&n);

printf("Enter the values of array: ");

for(i=0;i<=n-1;i++)

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

sort(a,n);

return 0;

}

4. Write a function to rotate an array by n position in d direction. The d is an indicative value for left or right. (For example, if array of size 5 is [32, 29, 40, 12, 70]; n is 2 and d is left, then the resulting array after left rotation 2 times is [40, 12, 70, 32, 29] )

Ans #include<stdio.h>

/\* Left to Right Shifting \*/

int main()

{

int a[100],i,n,d,j,temp;

printf("Enter the size of array: ");

scanf("%d",&n);

printf("Enter the values of array: ");

for(i=0;i<=n-1;i++)

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

printf("Enter the position of rotating direction: ");

scanf("%d",&d);

for(j=0;j<d;j++)

{

temp=a[0];

{

for(i=0;i<=n-1;i++)

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

}

a[n-1]=temp;

}

for(i=0;i<=n-1;i++)

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

return 0;

}

#include<stdio.h>

/\* right to Left Shift \*/

int main()

{

int a[100],i,n,d,j,temp;

printf("Enter the size of array: ");

scanf("%d",&n);

printf("Enter the values of array: ");

for(i=0;i<=n-1;i++)

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

printf("Enter the position of rotating direction: ");

scanf("%d",&d);

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

{

temp=a[n-1];

{

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

a[j]=a[j-1];

}

a[0]=temp;

}

for(i=0;i<=n-1;i++)

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

return 0;

}

5. Write a function to find the first occurrence of adjacent duplicate values in the array. Function has to return the value of the element.

Ans #include<stdio.h>

int ad\_duplicate(int b[],int n)

{

int i;

for(i=0;i<=n-1;i++)

if(b[i]==b[i+1])

return b[i];

}

int main()

{

int a[100],i,n;

printf("Enter the size of array: ");

scanf("%d",&n);

printf("Enter the values of array: ");

for(i=0;i<=n-1;i++)

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

printf("the first occurrence of adjacent duplicate value in the array is %d",ad\_duplicate(a,n));

return 0;

}

6. Write a function in C to read n number of values in an array and display it in reverse order.

Ans #include<stdio.h>

void rev(int b[],int n)

{

int i;

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

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

}

int main()

{

int a[100],i,n;

printf("Enter the size of array: ");

scanf("%d",&n);

printf("Enter the values of array: ");

for(i=0;i<=n-1;i++)

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

rev(a,n);

return 0;

}

7. Write a function in C to count a total number of duplicate elements in an array.

Ans #include<stdio.h>

void dup(int b[],int n)

{

int i,j,count=0;

for(i=0;i<=n-1;i++)

{

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

{

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

count++;

}

}

printf("total number of duplicate elements %d ",count);

}

int main()

{

int a[100],i,n;

printf("Enter the size of array: ");

scanf("%d",&n);

printf("Enter the values of array: ");

for(i=0;i<=n-1;i++)

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

dup(a,n);

return 0;

}

8. Write a function in C to print all unique elements in an array.

Ans #include<stdio.h>

int main()

{

int a[10],i;

int freq[1000]={0};

printf("Enter 10 Numbers: ");

for(i=0;i<=9;i++)

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

for(i=0;i<=9;i++)

{

freq[a[i]]++;

}

printf("Unique elements are\n");

for(i=0;i<=999;i++)

{

if(freq[i] ==1)

printf("%d\n",i);

}

return 0;

}

9. Write a function in C to merge two arrays of the same size sorted in descending order.

Ans

10. Write a function in C to count the frequency of each element of an array

Ans #include<stdio.h>

int main()

{

int a[10],i;

int freq[1000]={0};

printf("Enter 10 Numbers: ");

for(i=0;i<=9;i++)

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

for(i=0;i<=9;i++)

{

freq[a[i]]++;

}

for(i=0;i<=999;i++)

{

if(freq[i] !=0)

printf("%d ==> %d\n",i,freq[i]);

}

return 0;

}