# Write a program that will take ***n (n=any positive integer less than 100)*** from the user and print them.

Solution:

#include<stdio.h>

int main()

{

int arr[110],i,n;

printf("Enter array limit:");

scanf("%d",&n);

if(n<=100)

{

printf("Enter array number: ");

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

{

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

if(arr[i]>=0)

{

}

else

{

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

}

}

printf("Your number is: ");

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

{

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

}

}

else

{printf("Your array limit is invalid.please enter valid value..");}

return 0;

}

# Write a program that will take ***n (n=any positive integer less than 100)*** from the user and print them in descending order.

Solution:

#include<stdio.h>

int main()

{

int arr[110],i,n;

printf("Enter array limit:");

scanf("%d",&n);

if(n<=100)

{

printf("Enter array number: ");

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

{

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

if(arr[i]>=0)

{

}

else

{

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

}

}

printf("array number are: ");

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

{

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

}

}

else

{printf("Your array limit is invalid.please enter valid value..");}

return 0;

}

# Write a program to calculate sum & and average of an Array.

Solution:

#include<stdio.h>

int main()

{

int arr[100],i,n,sum=0;

float aveg;

printf("Enter array limit:");

scanf("%d",&n);

printf("Enter array number:");

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

{

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

sum=sum+arr[i];

}

aveg=(float)(sum)/n;

printf("Calculated average result: %.2f",aveg);

return 0;

}

# Write a program that will take ***n (n=any positive integer less than 100)*** from the user and find the biggest and smallest number among them.

Solution:

#include<stdio.h>

int main()

{

int arr[110],i,n;

printf("Enter array limit:");

scanf("%d",&n);

if(n<=100)

{

printf("Enter array number: ");

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

{

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

if(arr[i]>=0)

{

}

else

{

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

}

}

int max=arr[2];

int min=arr[0];

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

{

if(arr[i]>max)

{

max=arr[i];

}

else if(arr[i]<min)

{

min=arr[i];

}

}

printf("Biggest number in the array: %d",max);

printf("\n\ Smallest number is: %d",min);

}

else

{printf("Your array limit is invalid.please enter valid value..");}

return 0;

}

# Write a program to input in a two dimensional array of integers and display the values.

Solution:

#include<stdio.h>

int main()

{

int arr[100][100],i,j,n; //array[row][column]

printf("Enter array limit:");

scanf("%d",&n);

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

{

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

{

printf("Enter your tow dimensional array number:arr[%d][%d]...",i,j);

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

}

}

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

{

printf("\n");

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

{

printf(" %d",arr[i][j]);

}

printf("\n");

}

return 0;

}

# Implement the Traversing algorithm of a linear array.

Solution:

#include<stdio.h>

int main()

{

int arr[100],i,n;

printf("Enter array limit:");

scanf("%d",&n);

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

{

printf("Array element are :arr[%d]==",i);

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

}

printf("\n\nGiven array element: ");

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

{

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

}

return 0;

}

# Write a program to input a list of positive integers in an array and print the numbers which are even and odd. You have to print the total numbers of even and odd numbers.

Solution:

#include<stdio.h>

int main()

{

int arr[100],i,n,m=0,x=0;

printf("Enter array limit: ");

scanf("%d",&n);

printf("Enter array element:");

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

{

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

}

printf("\nEven value..");

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

{

if(arr[i]%2==0)

{

m=m+1;

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

}

}

printf("\n\nOdd value..");

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

{

if(arr[i]%2!=0)

{

x=x+1;

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

}

}

printf("\n All even value: %d",m);

printf("\n All odd value: %d",x);

return 0;

}

# Write a program to input several marks of a test of students in a class. Now finds the number of students who get A+, A-, B, C, D and F grad marks.

Solution:

#include<stdio.h>

int main()

{

int arr[100],i,n;

int a,b,c,d,e,f,g;

a=b=c=d=e=f=g=0;

printf("Enter array limit: ");

scanf("%d",&n);

printf("Enter your subject number:");

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

{

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

}

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

{

if(arr[i]>=80 && arr[i]<101)

{

a=a+1;

}

else if(arr[i]>=70 && arr[i]<=79)

{

b=b+1;

}

else if(arr[i]>=60 && arr[i]<=69)

{

c=c+1;

}

else if(arr[i]>=50 && arr[i]<=59)

{

d=d+1;

}

else if(arr[i]>=40 && arr[i]<=49)

{

e=e+1;

}

else if(arr[i]>=33 && arr[i]<=39)

{

f=f+1;

}

else if(arr[i]<33)

{

g=g+1;

}

else

{

}

}

printf(" \nA+... %d",a);

printf(" \nA...%d",b);

printf(" \nA-... %d",c);

printf(" \nB ..%d",d);

printf(" \nC ..%d",e);

printf(" \nD.. %d",f);

printf(" \nFail ..%d",g);

return 0;

}

# Write a program to input a list of positive integers in an array and find the repeating elements in the array.

Solution:

#include<stdio.h>

int main()

{

int arr[100],i,n,j,d,m,k=0;

printf("Enter array limit: ");

scanf("%d",&n);

printf("Enter array element:");

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

{

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

}

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

{

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

{

if(arr[i]==arr[i+d])

{

k=k+1;

m=arr[i];

}

}

}

printf("\nRepeated number:%d",m);

printf("\n\nAll repeated number’s are:%d",k);

return 0;

}

# Write a program to input a string and find the length of the string without using any library function.

Solution:

#include<stdio.h>

int main()

{

char str[50],i;

printf("Enter string name:");

scanf("%[^\n]",str);

int l=0;

for(i=0;str[i]!='\0';i++)

{

l=l+1;

}

printf("Your string length is: %d",l);

return 0;

}

# Write a program to input two 2-D array and print the addition of two matrices.

Solution:

#include<stdio.h>

int main()

{

int arr[100][100],m,n,i,j,sum[100][100],arr2[100][100],p,q,r,c;

printf("Enter 1st array row size:");

scanf("%d",&m);

printf("Enter 1st array column size:");

scanf("%d",&n);

printf("\n\n");

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

{

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

{

printf("Enter 1st array element arr[%d][%d]: ",i,j);

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

}

}

printf("\n\n");

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

{

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

{

printf("Enter 2nd array element arr[%d][%d]: ",i,j);

scanf("%d",&arr2[i][j]);

}

}

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

{

printf("\n");

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

{

sum[i][j]=arr[i][j]+arr2[i][j];

printf(" %d",sum[i][j]);

}

}

return 0;

}

# WAP to read an array and insert an element with a given position into the array.

Solution:

#include<stdio.h>

int main()

{

int arr[100],i,n,p,m;

printf("Enter array limit:");

scanf("%d",&n);

printf("Enter array element:");

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

{

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

}

printf("Enter position:");

scanf("%d",&p);

printf("Enter new element:");

scanf("%d",&m);

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

{

arr[i+1]=arr[i];

}

arr[p]=m;

n=n+1;

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

{

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

}

return 0;

}

# WAP to read an array and delete an element with a given position into from the array.

Solution:

#include<stdio.h>

int main()

{

int arr[100],i,n,p,m;

printf("Enter array limit:");

scanf("%d",&n);

printf("Enter array element:");

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

{

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

}

printf("Enter position:");

scanf("%d",&p);

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

{

arr[i]=arr[i+1];

}

n=n-1;

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

{

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

}

return 0;

}

# WAP for matrix multiplication using two dimensional array.

Solution:

#include<stdio.h>

int main()

{

int arr[100][100],m,n,i,j,k,multi[100][100],sum,arr2[100][100];

printf("Enter your 1st array row size:");

scanf("%d",&m);

printf("Enter your 1st array column size:");

scanf("%d",&n);

printf("\n\n");

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

{

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

{

printf("Enter your 1st array element arr[%d][%d]: ",i,j);

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

}

}

printf("\n\n");

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

{

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

{

printf("Enter your 2nd array element arr[%d][%d]: ",i,j);

scanf("%d",&arr2[i][j]);

}

}

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

{

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

{

sum=0;

for(k=0;k<m;k++)

{

sum=sum+arr[i][k]\*arr2[k][j];

}

multi[i][j]=sum;

printf(" %6d\t",multi[i][j]);

}

printf("\n");

}

return 0;

}