1. **Write a program to calculate the sum of numbers stored in an array of size 10. Take array values from the user.**

#include<stdio.h>

int main()

{

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

printf("Enter 10 values: ");

for(i=0;i<10;i++)

{

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

sum+=a[i];

}

printf("Sum of the numbers is %d",sum);

return 0;

}

1. **Write a program to calculate the average of numbers stored in an array of size 10. Take array values from the user.**

#include<stdio.h>

int main()

{

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

float avg;

printf("Enter 10 values: ");

for(i=0;i<10;i++)

{

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

sum+=a[i];

}

avg=(float)sum/10;

printf("Average of the numbers is %.2f",avg);

return 0;

}

1. **Write a program to calculate the sum of all even numbers and sum of all odd numbers, which are stored in an array of size 10. Take array values from the user.**

#include<stdio.h>

int main()

{

int a[10],i,sume=0,sumo=0;

printf("Enter 10 values: ");

for(i=0;i<10;i++)

{

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

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

sume+=a[i];

else

sumo+=a[i];

}

printf("Sum of even numbers is %d and sum of odd numbers is %d",sume,sumo);

return 0;

}

1. **Write a program to find the greatest number stored in an array of size 10. Take array values from the user.**

#include<stdio.h>

int main()

{

int a[10],i,max;

printf("Enter 10 values: ");

for(i=1;i<10;i++)

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

max=a[0];

for(i=1;i<10;i++)

{

if(a[i]>max)

max=a[i];

}

printf("Greatest among all numbers is %d",max);

return 0;

}

1. **Write a program to find the smallest number stored in an array of size 10. Take array values from the user.**

#include<stdio.h>

int main()

{

int a[10],i,min;

printf("Enter 10 values: ");

for(i=0;i<10;i++)

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

min=a[0];

for(i=1;i<10;i++)

{

if(a[i]<min)

min=a[i];

}

printf("Smallest among all numbers is %d",min);

return 0;

}

1. **Write a program to sort elements of an array of size 10. Take array values from the user.**

#include<stdio.h>

int main()

{

int a[10],i,j;

printf("Enter 10 numbers: ");

for(i=0;i<10;i++)

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

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

{

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

{

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

{

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

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

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

}

}

}

for(i=0;i<10;i++)

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

return 0;

}

1. **Write a program to find second largest in an array.Take array values from the user.**

#include<stdio.h>

int main()

{

int a[10],i,l,sl;

printf("Enter 10 numbers: ");

for(i=0;i<10;i++)

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

l=a[0];

sl=a[1];

for(i=1;i<10;i++)

{

if(a[i]>l)

{

sl=l;

l=a[i];

}

else

{

if(a[i]>sl)

sl=a[i];

}

}

printf("Second largest numbers is %d",sl);

return 0;

}

1. **Write a program to find the second smallest number in an array.Take array values from the user.**

#include<stdio.h>

#include<limits.h>

int main()

{

int a[10],i,s,ss;

printf("Enter 10 numbers: ");

for(i=0;i<10;i++)

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

s=INT\_MAX;

ss=INT\_MAX;

for(i=0;i<10;i++)

{

if(a[i]<s)

{

ss=s;

s=a[i];

}

else if(a[i]<ss)

ss=a[i];

}

printf("Second smallest number is %d",ss);

return 0;

}

1. **Write a program in C to read n number of values in an array and display it in reverse order. Take array values from the user.**

#include<stdio.h>

int main()

{

int a[10],i;

printf("Enter 10 numbers: ");

for(i=0;i<10;i++)

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

for(i=9;i>=0;i--)

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

return 0;

}

1. **Write a program in C to copy the elements of one array into another array.Take array values from the user.**

#include<stdio.h>

int main()

{

int a[10],b[10],i;

printf("Enter 10 numbers: ");

for(i=0;i<10;i++)

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

for(i=0;i<10;i++)

b[i]=a[i];

return 0;

}