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  arr[10],i,sum=0;

   printf("Enter all number: ");

   for(i=0;i<10;i++)

    {

      scanf("%d",&arr[i]);

      sum=sum+arr[i];

    }

       printf("sum of all 10 elements is %d",sum);

}

2. 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()

{

   float  arr[10],sum=0;

   printf("Enter all number: ");

   for(int i=0;i<10;i++)

    {

      scanf("%f",&arr[i]);

      sum=sum+arr[i];

    }

       printf("Avg of all 10 elements is %0.2f",sum/10);

}

3. 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  arr[10],se=0,so=0;

   printf("Enter all number: ");

   for(int i=0;i<10;i++)

    {

      scanf("%d",&arr[i]);

      if(arr[i]%2==0)

         se=se+arr[i];

      else

         so=so+arr[i];

    }

       printf("sumof all even elements is %d\n",se);

       printf("sumof all odd elements is %d",so);

}

4.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  arr[10],g;

   printf("Enter all number: ");

   for(int i=0;i<10;i++)

      scanf("%d",&arr[i]);

    g=arr[0];

   for(int i=0;i<10;i++)

     if(arr[i]>g)

       g=arr[i];

   printf("greatest number is %d ",g);

}

5. 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  arr[10],g;

   printf("Enter all number: ");

   for(int i=0;i<10;i++)

      scanf("%d",&arr[i]);

    g=arr[0];

   for(int i=0;i<10;i++)

     if(arr[i]<g)

       g=arr[i];

   printf("smallest number is %d ",g);

}

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

#include<stdio.h>

int main()

{

   int  arr[10],i,j,k;

printf("Enter all 10 elements: ");

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

   {

      scanf("%d",&arr[i]);

   }

   for(i=0;i<=9;i++)

   {

      for(j=i+1;j<=9;j++)

      {

         if(arr[i]>arr[j])

          {

            k=arr[i];

            arr[i]=arr[j];

            arr[j]=k;

          }

      }

   }

 printf("Sorted array is : ");

   for(i=0;i<=9;i++)

   {

      printf("%d ",arr[i]);

   }

}

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

#include<stdio.h>

int main()

{

   int  arr[10],i,j,k;

   printf("Enter all 10 elements: ");

   for(i=0;i<=9;i++)

   {

      scanf("%d",&arr[i]);

   }

   for(i=0;i<=9;i++)

   {

      for(j=i+1;j<=9;j++)

      {

         if(arr[i]>arr[j])

          {

            k=arr[i];

            arr[i]=arr[j];

            arr[j]=k;

          }

      }

   }

   printf("2nd largest element is : %d",arr[8]);

}

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

#include<stdio.h>

int main()

{

   int  arr[10],i,j,k;

   printf("Enter all 10 elements: ");

   for(i=0;i<=9;i++)

   {

      scanf("%d",&arr[i]);

   }

   for(i=0;i<=9;i++)

   {

      for(j=i+1;j<=9;j++)

      {

         if(arr[i]>arr[j])

          {

            k=arr[i];

            arr[i]=arr[j];

            arr[j]=k;

          }

      }

   }

   printf("2nd smallest element is : %d",arr[1]);

}

9. 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  i,n,temp;

   printf("Enter size of array: ");

   scanf("%d",&n);

   int arr[n];

   for(i=0;i<n;i++)

   {

      scanf("%d",&arr[i]);

   }

   for(i=0;i<n/2;i++)

   {

      temp=arr[i];

      arr[i]=arr[n-1-i];

      arr[n-1-i]=temp;

   }

   printf("Reversed array is:");

   for(i=0;i<n;i++)

   {

      printf("%d ",arr[i]);

   }

}

10. 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  i,n,temp;

   printf("Enter size of array: ");

   scanf("%d",&n);

   int arr[n],arr2[n];

   for(i=0;i<n;i++)

   {

      scanf("%d",&arr[i]);

   }

   for(i=0;i<n;i++)

   {

      arr2[i]=arr[i];

   }

   printf("New array elements is ");

   for(i=0;i<n;i++)

   {

      printf("%d ",arr2[i]);

   }

}