Q1.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 argc, char \*argv[])

{

    int arr[10], sum = 0;

    for (int i = 0; i < 10; i++)

    {

        printf("Enter value of a[%d] = ", i);

        scanf("%d", &arr[i]);

        sum = sum + arr[i];

    }

    printf("\n\nSum = %d", sum);

    return 0;

}

Q2.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 argc, char \*argv[])

{

    int arr[10], sum = 0;

    float average;

    for (int i = 0; i < 10; i++)

    {

        printf("Enter value of a[%d] = ", i);

        scanf("%d", &arr[i]);

        sum = sum + arr[i];

    }

    printf("\n\nAverage = %.2f", sum / 10.0);

    return 0;

}

Q3.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 argc, char \*argv[])

{

    int arr[10], even =0, odd = 0;

    for (int i = 0; i < 10; i++)

    {

        printf("Enter value of a[%d] = ", i);

        scanf("%d", &arr[i]);

        if (arr[i] % 2 == 0)

            even = even + arr[i];

        else

            odd = odd + arr[i];

    }

    printf("\n\nSum of even = %d", even);

    printf("\nSum of odd = %d", odd);

    return 0;

}

Q4.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 argc, char \*argv[])

{

    int arr[10], greatest = 0;

    for (int i = 0; i < 10; i++)

    {

        printf("Enter value of a[%d] = ", i);

        scanf("%d", &arr[i]);

        if (greatest < arr[i])

            greatest = arr[i];

    }

    printf("\n\nGreatest number = %d", greatest);

    return 0;

}

Q5.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 argc, char \*argv[])

{

    int arr[10], smallest = 0, j = 0;

    for (int i = 0; i < 10; i++)

    {

        printf("Enter value of a[%d] = ", i);

        scanf("%d", &arr[i]);

        if (i > 0)

            if (arr[j] > arr[i])

                j = i;

    }

    printf("\n\nSmallest = %d", arr[j]);

    return 0;

}

Q6.Write a program to sort elements of an array of size 10. Take array values from the user.

#include <stdio.h>

int main(int argc, char \*argv[])

{

    int arr[10], tmp;

    for (int i = 0; i < 10; i++)

    {

        printf("Enter value of a[%d] = ", i);

        scanf("%d", &arr[i]);

        if (i > 0)

        {

            for (int k = 0; k < i;k++)

            {

                if (arr[k]> arr[i])

                {

                    tmp = arr[i];

                    arr[i] = arr[k];

                    arr[k] = tmp;

                }

            }

        }

    }

    for (int i = 0; i < 10; i++)

    {

        printf("%d ", arr[i]);

    }

    return 0;

}

Q7.Write a program to find second largest in an array.Take array values from the user.

#include <stdio.h>

int main(int argc, char \*argv[])

{

    int arr[10];

    for (int i = 0; i < 10; i++)

    {

        printf("Enter value of a[%d] = ", i);

        scanf("%d", &arr[i]);

        if (i > 1)

        {

            for (int j = 0; j < i; j++)

            {

                if (arr[j] > arr[i])

                {

                    int tmp = arr[i];

                    arr[i] = arr[j];

                    arr[j] = tmp;

                }

            }

        }

    }

    printf("\n\nSecond largest = %d",arr[8]);

    return 0;

}

Q8.Write a program to find the second smallest number in an array.Take array values from the user.

#include <stdio.h>

int main(int argc, char \*argv[])

{

    int arr[10];

    for (int i = 0; i < 10; i++)

    {

        printf("Enter value of a[%d] = ", i);

        scanf("%d", &arr[i]);

        if (i>1)

        {

            for (int j  = 0; j <i; j++)

            {

                if (arr[i]<arr[j])

                {

                    int tmp = arr[i];

                    arr[i]=arr[j];

                    arr[j]=tmp;

                }

            }

        }

    }

    printf("\n\nSecond smallest = %d",arr[1]);

    return 0;

}

Q9.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 argc, char \*argv[])

{

    int num;

    printf("Enter size of array = ");

    scanf("%d",&num);

    int arr[num];

    for (int i = 0; i < num; i++)

    {

        printf("Enter value of a[%d] = ", i);

        scanf("%d",&arr[i]);

    }

    for (num = num-1; num > -1; num--)

        printf("%d ", arr[num]);

    return 0;

}

Q10.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 argc, char \*argv[])

{

    int num;

    printf("Enter array size = ");

    scanf("%d",&num);

    int arr[num];

    for (int i = 0; i < num; i++)

    {

        printf("Enter value of a[%d] = ",i);

        scanf("%d",&arr[i]);

    }

    int brr[num];

    for (int i = 0; i < num; i++)

        brr[i] = arr[i];

    return 0;

}