**Assignment-14 Solution Name: Om Pant**

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

Ans –

*#include*<stdio.h>

int main(){

    int arr[10],sum=0;

    printf("\nEnter array Elements\n");

*for*(int i=0;i<10;i++){

        scanf("%d",&arr[i]);

    }

    printf("\nArray Elements are --\n");

*for*(int i=0;i<10;i++){

        printf("%d ",arr[i]);

    }

*for*(int i=0;i<10;i++){

        sum += arr[i];

    }

    printf("\n\nSum of Array elements is: %d\n\n",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.

Ans-

*#include*<stdio.h>

int main(){

    int arr[10],sum=0;

    float average;

    printf("\nEnter array Elements\n");

*for*(int i=0;i<10;i++){

        scanf("%d",&arr[i]);

    }

    printf("\nArray Elements are --\n");

*for*(int i=0;i<10;i++){

        printf("%d ",arr[i]);

    }

*for*(int i=0;i<10;i++){

        sum += arr[i];

    }

    average = sum/10.0;

    printf("\n\nAverage of Array elements is: %.2f\n\n",average);

*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.

Ans –

*#include*<stdio.h>

int main(){

    int arr[10],evenSum=0,oddSum=0;

    printf("\nEnter array Elements\n");

*for*(int i=0;i<10;i++){

        scanf("%d",&arr[i]);

    }

    printf("\nArray Elements are --\n");

*for*(int i=0;i<10;i++){

        printf("%d ",arr[i]);

    }

*for*(int i=0;i<10;i++){

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

            evenSum += arr[i];

        }*else*{

            oddSum += arr[i];

        }

    }

    printf("\nSum of Even Array elements is: %d\n",evenSum);

    printf("\nSum of odd Array elements is: %d\n",oddSum);

*return* 0;

}

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

Ans-

*#include*<stdio.h>

int main(){

    int arr[10],max;

    printf("\nEnter array Elements\n");

*for*(int i=0;i<10;i++){

        scanf("%d",&arr[i]);

    }

    printf("\nArray Elements are --\n");

*for*(int i=0;i<10;i++){

        printf("%d ",arr[i]);

    }

    max = arr[0];

*for*(int i=0;i<10;i++){

*if*(arr[i]>max)

            max = arr[i];

    }

    printf("\nGreatest array elements is: %d\n",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.

Ans-

*#include*<stdio.h>

int main(){

    int arr[10],min;

    printf("\nEnter array Elements\n");

*for*(int i=0;i<10;i++){

        scanf("%d",&arr[i]);

    }

    printf("\nArray Elements are --\n");

*for*(int i=0;i<10;i++){

        printf("%d ",arr[i]);

    }

    min = arr[0];

*for*(int i=0;i<10;i++){

*if*(arr[i]<min)

            min = arr[i];

    }

    printf("\nSmallest array elements is: %d\n",min);

*return* 0;

}

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

Ans-

*#include*<stdio.h>

int main(){

    int a[10],temp;

    printf("Enter 10 elements\n");

*for*(int i=0;i<10;i++){

        scanf("%d",&a[i]);

    }

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

    {

*for*(int j = i;j<10;j++){

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

                temp = a[i];

                a[i] = a[j];

                a[j] = temp;

            }

        }

    }

    printf("Sorted Array:\n");

*for*(int 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.

Ans-

*#include*<stdio.h>

int main(){

    int arr[10],max1,max2,temp;

    printf("\nEnter array Elements\n");

*for*(int i=0;i<10;i++){

        scanf("%d",&arr[i]);

    }

    max1 = arr[0];

    max2 = arr[1];

*if*(max2>max1){

        temp = max1;

        max1 = max2;

        max2 = temp;

    }

*for*(int i=2;i<10;i++){

*if*(arr[i]>max1){

            max2 = max1;

            max1 = arr[i];

        }

*else* *if*(arr[i]>max2){

            max2 = arr[i];

        }

    }

    printf("\n2nd Largest array elements is: %d\n",max2);

*return* 0;

}

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

Ans-

*#include*<stdio.h>

int main(){

    int arr[10],min1,min2,temp;

    printf("\nEnter array Elements\n");

*for*(int i=0;i<10;i++){

        scanf("%d",&arr[i]);

    }

    min1 = arr[0];

    min2 = arr[1];

*if*(min2 < min1){

        temp = min1;

        min1 = min2;

        min2 = temp;

    }

*for*(int i=2;i<10;i++){

*if*(arr[i]<min1){

            min2 = min1;

            min1 = arr[i];

        }

*else* *if*(arr[i]<min2){

            min2 = arr[i];

        }

    }

    printf("\n2nd Smallest array elements is: %d\n",min2);

*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.

Ans-

*#include*<stdio.h>

int main(){

    int a[50],n;

    printf("Enter the No. of elements in array: ");

    scanf("%d",&n);

    printf("\nEnter %d Elements\n", n);

*for*(int i = 0; i<n;i++){

        scanf("%d",&a[i]);

    }

*for*(int i=n-1;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.

Ans-

*// 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 a[50],b[50],n;

    printf("Enter the No. of elements in array: ");

    scanf("%d",&n);

    printf("\nEnter %d Elements\n", n);

*for*(int i = 0; i<n;i++){

        scanf("%d",&a[i]);

    }

    printf("Array A Elements are:\n");

*for*(int i = 0; i<n;i++){

        printf("%d ",a[i]);

    }

    printf("\n Copying values of array A in array B \n");

*for*(int i = 0; i<n;i++){

        b[i] = a[i];

    }

    printf("Array B Elements are:\n");

*for*(int i = 0; i<n;i++){

        printf("%d ",b[i]);

    }

*return* 0;

}