

Tushar Monga - 35214803119

EXPERIMENT 1

Question 1 : Program to find sum of digits of a number

```
#include<stdio.h>

void main()
{
    int n;

    //taking the n as input
    printf("Enter the number : ");
    scanf("%d",&n);

    int r;

    //initializing sum as 0
    int sum=0;

    //adding last digit each time
    while(n>0) {
        r=n%10;
        sum+=r;
        n/=10;
    }
    printf("Sum of the entered number : %d",sum);
}
```

OUTPUT

```
Enter the number : 5467  
Sum of the entered number : 22
```

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Question 2 : Program to find the largest among n input numbers

```
#include<stdio.h>
```

```
void main(){
```

```
    int n;
```

```
    int max;
```

```
    printf("Enter the n : ");
```

```
    scanf("%d",&n);
```

```
    int temp;
```

```
    scanf("%d",&temp);
```

```
    //setting max as first element
```

```
    max=temp;
```

```
    for(int i=2;i<=n;i++) {
```

```
        scanf("%d",&temp);
```

```
        if(max<temp) {
```

```
            max=temp;
```

```
        }
```

```
    }
```

```
    printf("Largest among the given numbers : %d",max);
```

```
}
```

OUTPUT

```
Enter the n : 5
1
2
3
4
5
Largest among the given numbers : 5
```

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Question 3 : Program to find sum of N input numbers using Array

```
#include<stdio.h>
```

```
void main() {
```

```
    int n;
```

```
    int arr[100];
```

```
    int sum=0;
```

```
    printf("Enter n : ");
```

```
    scanf("%d",&n);
```

```
    //taking the input array and adding each element
```

```
    printf("Enter the numbers : ");
```

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

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

```
        sum+=arr[i];
```

```
    }
```

```
    printf("Sum : %d",sum);
```

```
}
```

OUTPUT

```
Enter n : 5
Enter the numbers : 3
4
3
5
2
Sum : 17
```

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Question 4 : Program to print the reverse of an Array

```
#include<stdio.h>
```

```
void main() {
```

```
    int a[100],b[100],n;
```

```
    printf("Enter the numbers of elements : ");
```

```
    scanf("%d",&n);
```

```
    //taking the input array
```

```
    printf("Enter the elements of array : \n");
```

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

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

```
    //filling second array in reverse order of a
```

```
    for(int i=n-1,j=0;i>=0;i--,j++)
```

```
        b[j]=a[i];
```

```
    printf("Reversed Array : ");
```

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

```
        printf("%d ",b[i]);
```

```
}
```

OUTPUT

```
Enter the numbers of elements : 5
Enter the elements of array :
5
6
7
8
9
Reversed Array : 9 8 7 6 5
```


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Question 5 : Program to find largest and smallest element in an Array

```
#include<stdio.h>

void main() {
    int largest,smallest,a[100],n;

    printf("Enter the numbers of elements : ");
    scanf("%d",&n);
    printf("Enter the elements of array : \n");
    for(int i=0;i<n;i++)
        scanf("%d",&a[i]);

    //setting first element as largest
    largest=a[0];
    for(int i=0;i<n;i++){
        if(largest<a[i])
            largest=a[i];
    }
    //setting first element as smallest
    smallest=a[0];
    for(int i=0;i<n;i++) {
        if(smallest>a[i])
            smallest=a[i];
    }
    printf("Largest : %d\nSmallest : %d",largest,smallest);
}
```

OUTPUT

```
Enter the numbers of elements : 5
Enter the elements of array :
10
20
30
40
50
Largest : 50
Smallest : 10
```