

WAP to accept an integer from the user and calc and print the SUM OF THE DIGITS of that number.

SAMPLE OUTPUT

=====

Enter an int:

259

Sum of digits is 16

$$\begin{array}{r} 2 \\ 10 \overline{) 259} \\ \underline{20} \\ 59 \\ \underline{50} \\ 9 \end{array}$$

SAMPLE OUTPUT

=====

Enter an int:

1259

Sum of digits is 17

SAMPLE OUTPUT

=====

Enter an int:

94

Sum of digits is 13

```
#include<stdio.h>
int main()
{
    int n, sum=0, rem;
    printf("Enter an int:");
    scanf("%d", &n);

    while( n>0 )
    {
        rem=n%10;
        sum=sum+rem;
        n=n/10;
    }

    printf("Sum is %d", sum);
    return 0;
}
```

$$n=259, \text{ Sum}=0, \text{ rem}=9$$

$$\begin{array}{r} 25 \\ 2 \\ \hline 0 \end{array} \quad (16) + 1$$

$$\textcircled{1} \text{ rem} = 259 \cdot / \cdot 10 \Rightarrow 9$$

$$\text{Sum} = 0 + 9 \Rightarrow 9$$

$$\textcircled{2} \text{ rem} = 25 \cdot / \cdot 10 \Rightarrow 5$$

$$\text{Sum} = 9 + 5 \Rightarrow 14$$

$$\textcircled{3} \text{ rem} = 2 \cdot / \cdot 10 \Rightarrow 2$$

$$\text{Sum} = 14 + 2 \Rightarrow 16$$

$$\begin{array}{l} \text{Sum} += \text{rem}; \\ n /= 10; \end{array}$$

Assignments

=====

Qn1. WAP to accept an int from the user and print its REVERSE

SAMPLE OUTPUT

=====

Enter an int:

259

Reverse is 952

Qn2. WAP to accept an int from the user and print the sum of its FIRST and LAST digit only.

SAMPLE OUTPUT

=====

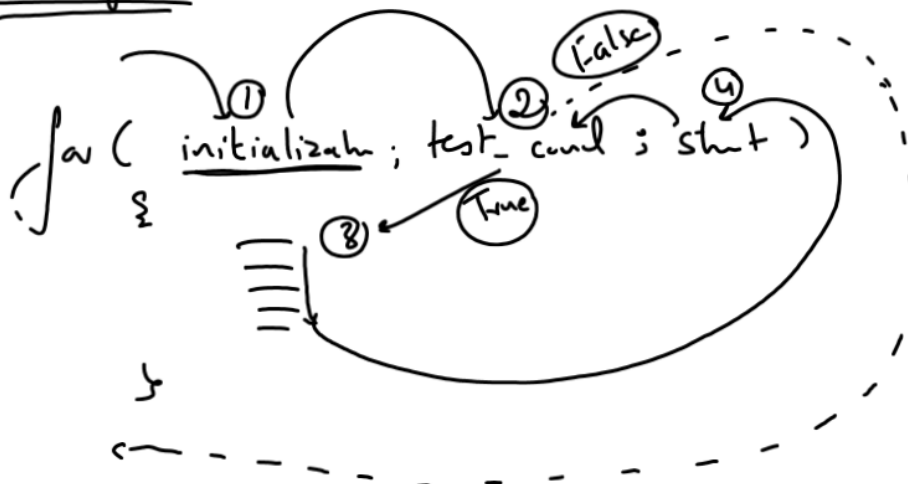
Enter an int:

259

Sum of first and last digit is 11

Using "for" Loop

Sbl. Syntax



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

```
int main()
```

```
{
```

```
    int i;
```

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

```
    {
```

```
        printf("\n%d",i);
```

```
    }
```

```
    return 0;
```

```
}
```

3 4 -- 9 to 11
1 2
 i

o/p

1

2

3

4

...

9

10

GUESS THE OUTPUT

=====

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

```
int main()
```

```
{
```

```
    int i;
```

```
    for(i=1;i>=10;i++)
```

① {

```
        printf("\n%d",i);
```

② }

```
    return 0;
```

```
}
```

OUTPUT

=====

Blank

Types of loop

Entry Controlled
Loop

① while

② for

Exit Controlled
Loop

① do...while

WAP to print numbers from 10 to 1 using for loop

```
#include <stdio.h>
int main()
{
    int i;

    for(i=10;i>=1;i--)
    {
        printf("\n%d",i);
    }
    return 0;
}
```

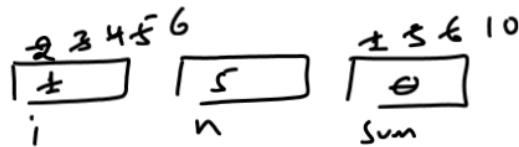
WAP to accept an integer from the user and print all the numbers from 1 to that number

```
#include <stdio.h>
int main()
{
    int i,n;
    printf("Enter an int:");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
        printf("\n%d",i);
    return 0;
}
```

WAP to accept an integer from the user and print sum of all the nos from 1 to that number.

```
int main()
{
    int i,n,sum=0;
    printf("Enter an int:");
    scanf("%d",&n);

    for(i=1; i<=n; i++)
        sum=sum+i;
    printf("Sum is %d",sum);
    return 0;
}
```



$$a) \text{ Sum} = 0 + 1 \Rightarrow 1$$

$$b) \text{ Sum} = 1 + 2 \Rightarrow 3$$

$$c) \text{ Sum} = 3 + 3 \Rightarrow 6$$

$$d) \text{ Sum} = 6 + 4 \Rightarrow 10$$

$$e) \text{ Sum} = 10 + 5 \Rightarrow 15$$

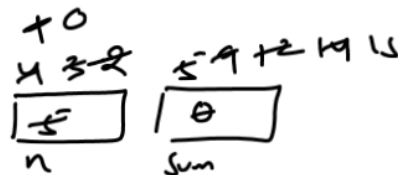
Previous Code Using Only 2 Var

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```
int main()
{
    int n,sum;
    printf("Enter an int:");
    scanf("%d",&n);

    for(sum=0; n>0; n--)
        sum=sum+n;

    printf("Sum is %d",sum);
    return 0;
}
```



$$a) \text{ Sum} = 0 + 5 \Rightarrow 5$$

$$b) \text{ Sum} = 5 + 4 \Rightarrow 9$$

$$c) \text{ Sum} = 9 + 3 \Rightarrow 12$$

$$d) \text{ Sum} = 12 + 2 \Rightarrow 14$$

$$e) \text{ Sum} = 14 + 1 \Rightarrow 15$$