```c
#include<stdio.h>
void main()
{
 int n,temp,sum=0;
 printf("Enter the digit :");
 scanf("%d",&n);
 while(n>0)
 {
  temp= n%10;
  sum=sum+temp;
  n=n/10;
 }
 printf("sum of number :%d",sum);
}
```

Compile Result

```
Enter the digit :420
sum of number :6
[Process completed (code 16) - press
 Enter]
```

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Program to find sum of digits of a numbers.

Algorithm

1. Start

2. Initialize sum = 0.

3. Read the value of n.

4. while (n > 0) // if (n > 0) condition becomes false goto step 6.

4.1   temp = n%10;

4.2   sum = sum + temp;

4.3.   n = n/10;

5. Repeat the steps until the condition becomes false

6. Print the sum of the digits.

7. stop.

Flowchart:

```
                    ┌─────────┐
                    │  Start  │
                    └────┬────┘
                         ↓
                  ┌──────────────┐
                  │ Initialize   │
                  │  Sum = 0     │
                  └──────┬───────┘
                         ↓
               ╱─────────────────────╱
              ╱  Read the value      ╱
             ╱     of n             ╱
            ╱─────────────────────╱
                         ↓
          ╱──────────────────────────╲
    ┌────<    while   n > 0           >──────────────┐
    │     ╲──────────────────────────╱               │
    │                │                                │
    │                ↓                                │
    │     ┌──────────────────────┐      ╱──────────────────╱
    │     │ temp = n % 10        │     ╱  Print the  sum   ╱
    └─────│ Sum = Sum + temp     │    ╱  of the digits    ╱
          │ n = n / 10           │   ╱──────────────────╱
          └──────────────────────┘               │
                  ┌────────┐                      │
                  │  Stop  │←─────────────────────┘
                  └────────┘
```