CODECHEF
An Educational Initiative

▸ PRACTICE   ▸ COMPETE   ▸ DISCUSS | ▸ COMMUNITY   ▸ HELP   ▸ ABOUT

Home » IDE

Code, Compile & Run

Ide   ✖   +

| Contest Code/Name (e.g. JULY15/PRACTICE) | Problem Code/Name (e.g. TEST) | Select |

C (gcc 6.3)   ▾   💾   🗑   Code gets autosaved every second   ℹ   ⬇   ↗   ⚙

```c
1   #include <stdio.h>
2   int main()
3 ▾ {
4   int n,t,sum=0,remainder;
5
6   printf("Enter an integer\n");
7   scanf("%d",&n);
8
9   t=n;
10
11  while(t!=0)
12 ▾ {
13  remainder=t%10;
14  sum =sum+remainder;
15   t=t/10;
16  }
17
18  printf("Sum of digits of %d = %d\n",n,sum);
19
20  return 0;
21  }
22
23
```

22:0   ↻

Open File   ✓Custom Input   Run

Custom Input

```
12
```

Status Successfully executed   Date 2020-05-30 08:33:48   Time 0 sec   Mem 9.424 kB   ✖

Input
```
12
```

Output
```
Enter an integer
Sum of digits of 12 = 3
```

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(i) Algorithm (sum of digits)

    step 1 : start

    step 2 : read n ;

    step 3 : sum = 0 ;

    step 4 : while (t != 0)
            {
                $r = t \% 10$;

                $s = s + r$;

                $n = n/10$;
            }

    step 5 : display s ;

    step 6 : stop.

(ii) Flowchart

```
        ┌──────────┐
        │  start   │
        └────┬─────┘
             │
        ╱────▼─────╲
       ╱  read n    ╲
       ╲────────────╱
             │
       ┌─────▼─────┐
       │  Sum = 0  │
       └─────┬─────┘
             │
          ╱──▼──╲
         ╱ t!=0  ╲────F────┐
         ╲       ╱         │
          ╲──┬──╱          │
             │T            │
       ┌─────▼──────┐      │
       │  r = t %.10│      │
       └─────┬──────┘      │
             │             │
       ┌─────▼──────┐      │
       │  S = S + r │      │
       └─────┬──────┘      │
             │             │
       ┌─────▼──────┐      │
       │  t = t/10  │      │
       └─────┬──────┘      │
             │◄────────────┘
        ╱────▼──────╲
       ╱  display s  ╲
       ╲─────────────╱
             │
        ┌────▼─────┐
        │   stop   │
        └──────────┘
```