Sum of digits

592

5 + 9 + 2

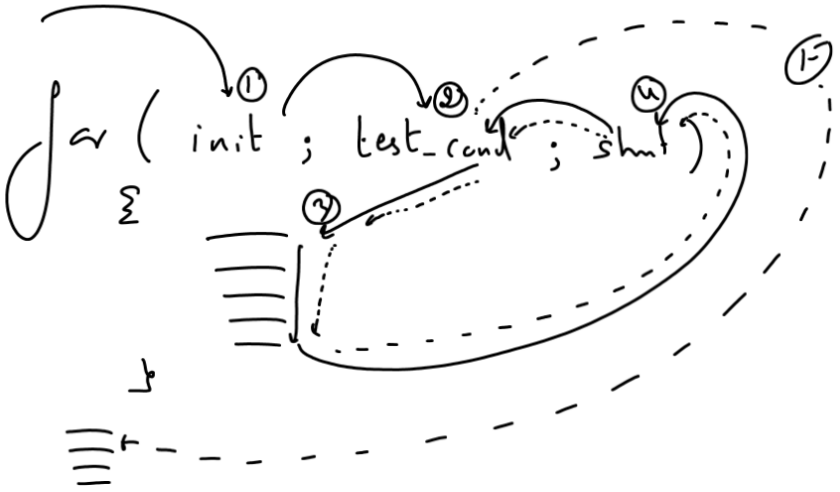
2 + 9 + 5

```
      59
  10 ) 592 (
       50
       --
       92
       90
       --
        2
```

n = 763

```
int main()
{
    int n, sum=0;
    int rem;
printf("Enter an int:");
scanf("%d", &n);
while(n>0)
{
    rem=n%10;
    sum=sum+rem;
    n=n/10;
}
printf("Sum of digits=%d", sum);
return 0;
}
```

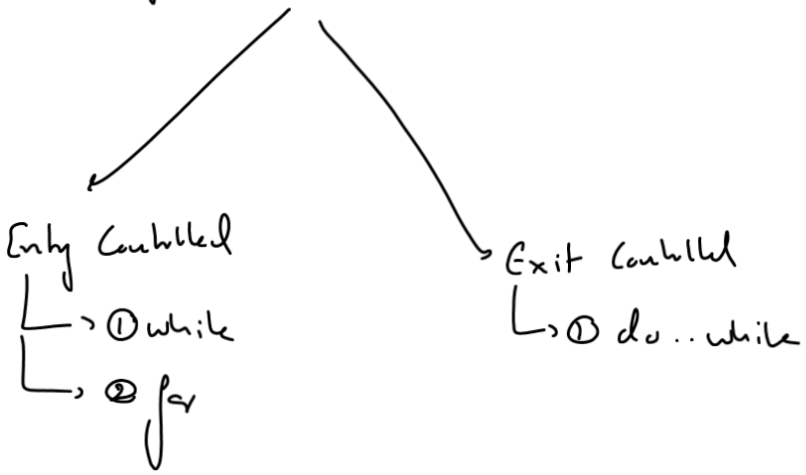
The "for" Loop




```
int main()
{
    int i=1;

    while(i<=10)
    {
    printf("\n%d", i);
    i++;
    }
return 0;
}
```

```
int main()
{  int i;

   for(i=1; i<=10; i++)
    {
      printf("\n%d", i);
    }

 return 0;
}
```

How many types of loops are there in C ?



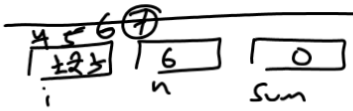
Enter an int : 5

```
1
2
3
4
5
```

```
int main()
{
    int i, n;
    printf("Enter an int ");
    scanf("%d", &n);
    for(i=1; i<=n; i++)
        printf("\n%d", i);
    return 0;
}
```

Enter an int: 6

Sum is 21



a) Sum = 0+1 => 1

b) Sum = 1+2 => 3

c) Sum = 3+3 => 6

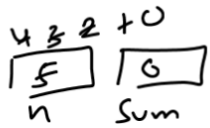
d) Sum = 6+4 => 10

e) Sum = 10+5 => 15

f) Sum = 15+6 => 21

```
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;
}
```

(21)



a) Sum = 0+5 => 5

b) Sum = 5+4 => 9

c) Sum = 9+3 => 12

d) Sum = 12+2 => 14

e) Sum = 14+1 => 15

```
int main()
{
    int n, sum;
    printf("Enter an int:");
    scanf("%d", &n);
    for(sum=0; n>=1; n--)
        sum=sum+n;
    printf("\n Sum is %d", sum);
    return 0;
}
```

(15)

```
int main()
{
    int n, sum;
    int rem;
    printf("Enter an int");
    scanf("%d", &n);
    for(sum=0; n>0; n=n/10)
    {
        rem = n%10;
        sum = sum + rem;
    }
    printf("Sum of digits=%d", sum);
    return 0;
}
```

153

```
  27
125
 + 1
---
153
---
```

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

0 to 15

n=153, sum=0

a) rem = 153 % 10
= 3

sum = 0 + 27 = 27

b) rem = 15 % 10
= 5

sum = 27 + 125
= 152

c) rem = 1 % 10
= 1

sum = 152 + 1
= 153

```
for( sum=0; n>0 ; n=n/10)
{
   rem = n % 10;
   sum = sum + rem*rem*rem;
}
if ( sum == x)
   printf("Armstrong no");
else
   printf("Not armstrong");
return 0;
}
```