

17-05-24

→ for (initialization; condition; increment or decrement)

```
{  
    True Block statements  
}
```

Q:- WAP to print 1st n-integers:-

→ main ()

```
{  
    int i, n;  
    printf ("enter n");  
    scanf ("%d", &n);  
    for (i=1; i<= n; i++)  
    {  
        printf ("%d", i);  
    }  
}
```

Q:- Sum of n-integers:-

→ main ()

```
{  
    int i, n;  
    printf ("enter n");  
    scanf ("%d", &n);  
    for (i=1; i<= n; i++)  
    {  
        s = s + i;  
    }  
    printf ("%d", s);  
}
```

→ INITIALIZATION

↓

CONDITION

↓

TRUE BLOCK

↓

INCREMENT /

DECREMENT

Q:- Factorial of a given number

→ main ()

```
{  
    int i, n, f;  
    printf ("enter n");  
    scanf ("%d", &n);  
    for (i=1; i<= n; i++)  
    {  
        f = f * i;  
    }  
    printf ("%d", f);  
}
```


Q:- Reverse a given number

```
-> main()
{
    int i, n, s=0, m;
    printf("enter n");
    scanf("%d", &m);
    for (; m!=0; )
    {
        m = m/10;
        s = s*10 + m;
        m = m/10;
    }
    printf("%d", s);
}
```

Q:- GCD

```
-> main()
{
    int a, b;
    printf("enter a & b");
    scanf("%d %d", &a, &b);
    for (; a!=b; )
    {
        if (a > b)
            a -= b;
        else
            b -= a;
    }
    printf("%d", &b);
}
```

Q:- Multiplication Table

```
-> main()
{
    int i, m;
    printf("enter m");
    scanf("%d", &m);
    for (i=1; i<=m; i++)
    {
        printf("%d * %d = %d",
                m, i, m*i);
    }
}
```

Q:- LCM

$a \times b / a/b$

```
-> main()
```

```
{
    int a, b, LCM, tempA, tempB;
    printf("enter a & b");
    scanf("%d %d", &a, &b);
    for (;
    {
        a = tempA;
        b = tempB;
        for (; a!=b; )
        {
            if (a > b)
            {
                a -= b;
            }
            else
            {
                b -= a;
            }
        }
    }
}
```



```
LCM = (temp A * temp B) / a;
```

```
printf ("%d", LCM);
```

```
}
```

Q:- sum of individual digits :-

→ main ()

```
{ int a, b, sum = 0;
```

```
printf ("enter a & b");
```

```
scanf ("%d %d", &a, &b);
```

```
for (; m != 0; )
```

```
{ m = m / 10;
```

```
sum = sum + m;
```

```
sum = sum + m;
```

```
m = m / 10;
```

```
}
```

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

```
}
```

Q:- Palindrome :-

→ main ()

```
{ int a, b, sum = 0, c;
```

```
printf ("enter a");
```

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

```
c = a;
```

```
for (; b != 0; )
```

```
{
```

```
b
```

→ main ()

```
{ int i, m, r, sum = 0;
```

```
printf ("enter number.");
```

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

```
for (i = m; i > 0; )
```

```
{ r = i % 10;
```

```
sum = sum * 10 + r;
```

```
i = i / 10;
```

```
}
```

```
if (sum == m)
```

```
{ printf ("%d is a Palindrome Number", m);
```

```
}
```

```
else
```

```
{ printf ("%d is not a Palindrome Number", m);
```

```
}
```