Algorithm

int factorial (int n);

int main ()

1. Start
2. Read n
3. fact = factorial (n)
4. Print fact.
5. Stop

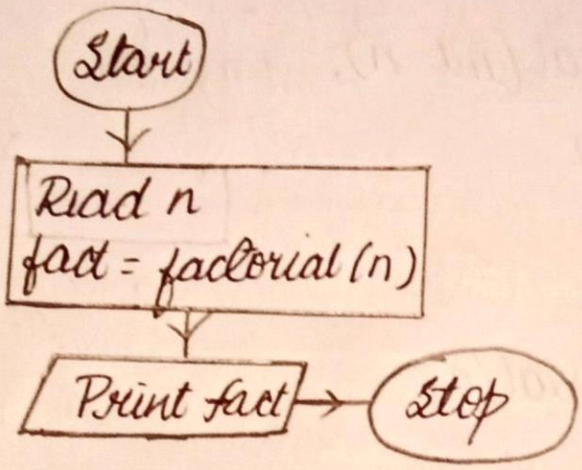
int factorial (int n)

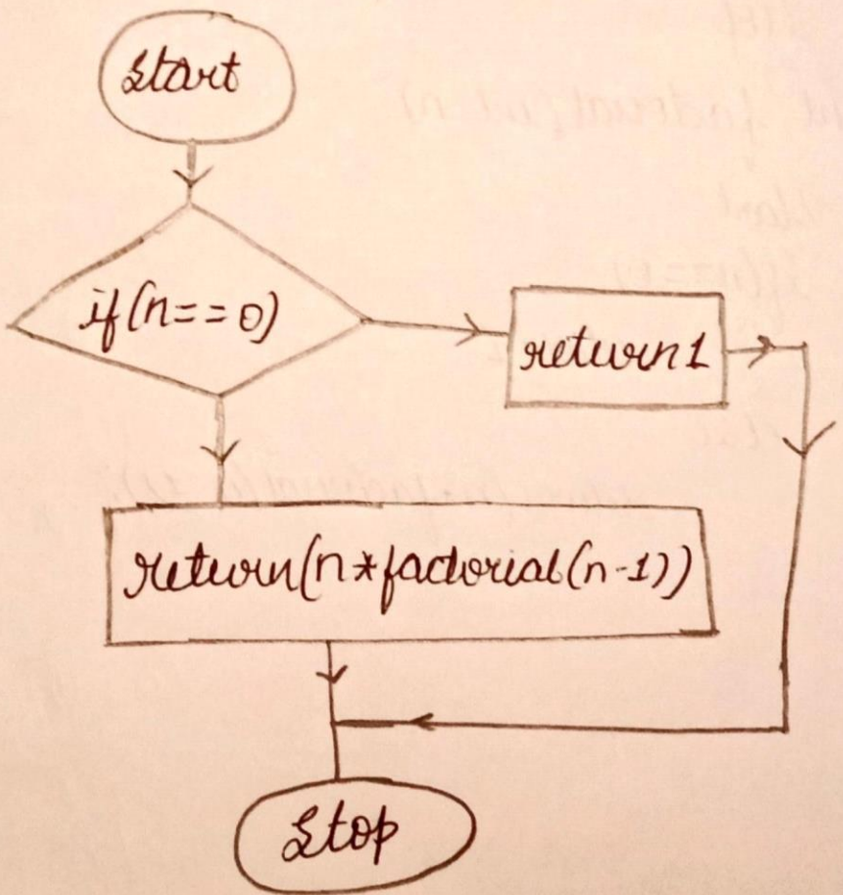
1. Start
2. if (n == 0)
6. return 1

   else

   return (n * factorial (n - 1));

Flowchart


Start
Read n
fact = factorial(n)
Print fact
Stop


Start
if(n==0)
return 1
return(n*factorial(n-1))
Stop

C (gcc 6.3)

Code gets autosaved every second

```c
#include<stdio.h>
int factorial(int n);
int main()
{
    int n,fact;
    printf("Enter a number\n");
    scanf("%d", &n);
    fact=factorial(n);
    printf("fact is %d\n",fact);
}
int factorial(int n)
{
    if(n==0)
    {
        return 1;
    }
    else
    {
        return(n*factorial(n-1));
    }
}
```

0:0

Open File

Custom Input

```
8
```

Status Successfully executed Date 2020-07-02 11:06:50 Time 0 sec

Input

```
8
```

Output

```
Enter a number
fact is 40320
```