

## **6.1.2 factorial of a number**

### **A] Algorithm**

Step 1: Start

Step 2: Input number n

Step 3: Set fact = 1

Step 4: Repeat the following steps for i from 1 to n

- Multiply fact = fact × i

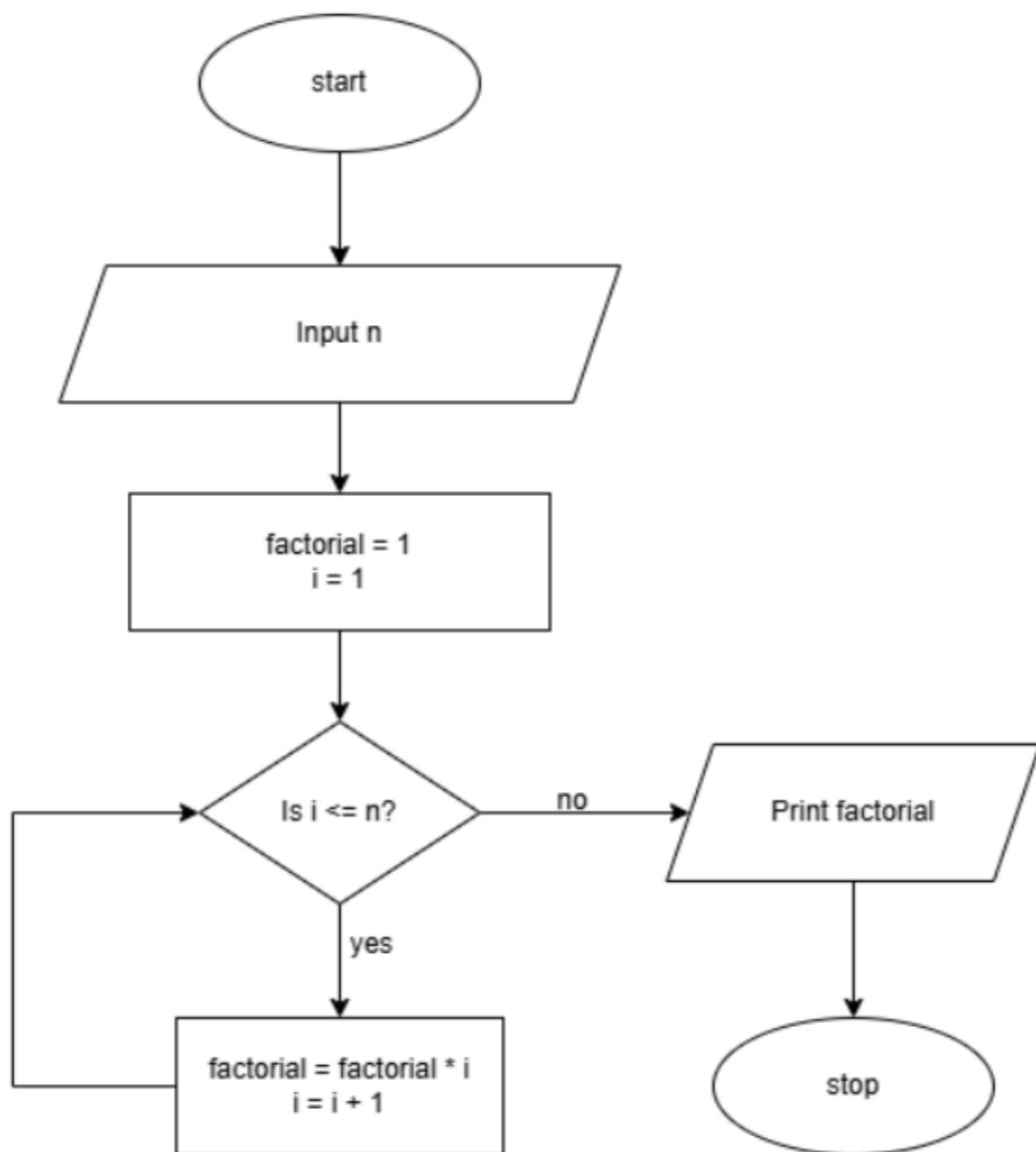
Step 5: Print fact

Step 6: Stop

### **B] code**

```
n = int(input())
fact = 1
for i in range(1, n + 1):
    fact = fact * i
print(fact)
```

### **C] flowchart**



# D] output

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6.1.2. Factorial of a Number 00:47

Write a Python program to calculate the factorial of a number  $n$  using loops.

**Input Format:**

- A single line containing an integer  $n$ .

**Output Format:**

- Print the factorial of the given integer  $n$ .

Sample Test Cases +

```
factorialN...
1 n = int(input())
2
3 fact = 1
4
5 for i in range(1, n+1):
6     fact = fact * i
7
8 print(fact)
9
10
```

Terminal Test cases

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