**Problem Statement:** Print Factorial of a number

This is to find factorial of a number. Factorial of n is the product of numbers from 1 to n.

**Example:** Factorial of 5 is equal to 5\*4\*3\*2\*1=120

|  |  |
| --- | --- |
| Expected Input | Expected Output |
| 3  5  -8  7  0 | 6  120  Invalid Input  5040  1 |

**Pseudo Code**

1.Declare i=1, f=1

2.Read n

3.If n>0

3.1 If i<=n

3.1.1 f=f\*i

3.1.2 Increment i

3.2 print f

4.If n=0 then Print f otherwise Invalid Input

**Trace Table**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| i=1 | f=1 | n | n>0 | i<=n | f=f\*i | i=i+1 | f | Invalid Input |
| 1 | 1 | 3 | True | True | 1 | 2 |  |  |
|  |  |  |  | True | 2 | 3 |  |  |
|  |  |  |  | True | 6 | 4 |  |  |
|  |  |  |  | False |  |  | 6 |  |
| 1 | 1 | -8 | False |  |  |  |  | Invalid Input |

|  |  |  |  |
| --- | --- | --- | --- |
| Expected Input | Expected Output | Actual Output | Test Result |
| 3  5  -8  7  0 | 6  120  Invalid Input  5040  1 | 6  120  Invalid Input  5040  1 |  |

**Final Result**

**Expected Inputs and Outputs**

