

In this we are Calculating the Factorial of a number

```
[ ]: def factorial(n):  
      if n == 0 or n == 1:  
          return 1  
      else:  
          return n * factorial(n-1)
```

****Explanation of the Factorial Function****

The factorial of a non-negative integer n is the product
for $0!=1$

$1!=1$

$n!=n(n-1)$

recursive approach:

In this notebook, the function `factorial(n)` uses recursion
if n is 0 or 1 \rightarrow return 1
Otherwise \rightarrow return $n \times \text{factorial}(n-1)$

```
[3]: factorial(5)
```

```
[3]: 120
```