#Sycs-4073

|  |
| --- |
| def recur\_factorial(n): |
|  | if n == 1: |
|  | return n |
|  | else: |
|  | return n\*recur\_factorial(n-1) |
|  |  |
|  | num = int(input("Enter a number: ")) |
|  |  |
|  | if num < 0: |
|  | print("Sorry, factorial does not exist for negative numbers") |
|  | elif num == 0: |
|  | print("The factorial of 0 is 1") |
|  | else: |
|  | print("The factorial of",num,"is",recur\_factorial(num)) |
|  |  |
|  | def factorial(n): |
|  |  |
|  | fact = 1 |
|  | for i in range(1, n + 1): |
|  | fact = fact \* i |
|  |  |
|  | return fact |
|  |  |
|  |  |
|  | if \_\_name\_\_ == '\_main\_': |
|  | print("The Factorial of", n, "is", factorial(n)) |
|  |  |
|  | #using iteration |
|  | def fact(number): |
|  |  |
|  | fact = 1 |
|  |  |
|  | for number in range(5, 1,-1): |
|  |  |
|  | fact = fact \* number |
|  | return fact |
|  |  |
|  | number = int(input("Enter a number for iteration : ")) |
|  |  |
|  | factorial = fact(number) |
|  | print("Factorial is "+str(factorial)) |