#1.1 implement a recursive function to calculate the factorial of a given number.

```
"""
1! = 1 × 1
2! = 2 × 1! --->2 × 1
3! = 3 × 2! --->3 × 2 × 1
.
.
10! = 10 × 9! --->10 × 9 × 8 ×...×
1
Formula - n × (n-1)!
"""


def fact_rec(n):
    if n==0 or n==1:
        return 1
    else:
        return n*fact_rec(n-1)

number =int(input("Enter the value:"))
res = fact_rec(number)

print("the factorial of {} is {}.".format(number,res))
```