

"""

$$1! = 1 * 1$$

$$2! = 2 * 1!$$

$$3! = 3 \times 2!$$

.

.

$$10! = 10 \times 9!$$

"""

```
def fact_rec(n):
```

```
    if n==0 or n==1:
```

```
        return 1
```

```
    else:
```

```
        return n*fact_rec(n-1)
```

```
number=int(input("enter a value:"))
```

```
res=fact_rec(number)
```

```
print("the factorial of {} is {}.".
```

```
format(number,res))
```

```
1 year = int(input("Enter year to be
checked: "))
2
3 ✓ if year % 4 == 0:
4 ✓     if year % 100 == 0:
5 ✓         if year % 400 == 0:
6             print("The year is a leap
year!")
7 ✓     else:
8         print("The year is not a leap
year!")
9 ✓ else:
10     print("The year is a leap
year!")
11 ✓ else:
12     print("The year is not a leap
year!")
```