5_6336895267932998495.py

```
# leap year
"""
year % 4 == 0 &
year % 100 != 0 /
year % 400 == 0
"""
def isleapyear(year):
  if (year % 4 == 0 and year % 100 != 0)
 or year % 400 == 0:
    return True
  else:
    return False
year = int(input("enter a year : "))
if isleapyear(year):
  print('{} is a leap year.'.format(year))
else:
  print('{} is not a leap year.'.format(ye
ar))
```

5_6336895267932998497.py

```
# 1.1 implement a recursive function to
 calculate the factorial of a given numb
er
"""
1! = 1 x 1
2! = 2 x 1! --->2 x 1
3! = 3 x 2! --->3 x 2 x 1
.
.
10! = 10 x 9! --->10 x 9 x 8 x.. x 1
Formula - n x (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(n
umber,res))
```