# factorial of a number

from functools import reduce

num = int(input('Enter a number:'))

factorial = lambda num: reduce(lambda x, y: x \* y, range(1, num + 1))

print('%d != %d' % (num, factorial(num)))

print('Method two')

factorial = reduce(lambda x, y: x \* y, range(1, num + 1))

print('%d != %d' % (num, factorial))

print('Method three')

fact = lambda n: 1 if n <= 1 else n \* fact(n - 1)

print('%d != %d' % (num, fact(num)))