```
def factorial(n):
    return 1 if(n==1 or n==0) else n * factorial(n-1);

num=5;
print ("factorial of", num, "is",
    factorial (num))

factorial of 5 is 120

In [2]:
    num= 7;
    print ("factorial of", num, "is",
        factorial(num))

factorial of 7 is 5040
```

## Python program to find whether a number is prime or composite

```
In [3]: num=int(input("Enter a number: "))
    if num > 1:
        for i in range(2, num):
            if (num % i)==0:
                 print(num, "is not a prime number")
                      print(i, "times", num//i, "is", num)
                       break
        else:
                 print(num, "is a prime number")
    else:
                 print(num, "is not a prime number")

Enter a number: 93
    93 is not a prime number
    3 times 31 is 93
```

## Python program to check whether a given string is palindrome or not.

```
def isPalindrome(str):
    for i in range(0, int(len(str)/2)):
        if str[i] != str[len(str)-i-1]:
            return False
    return True

s = "malyalam"
    ans = isPalindrome(s)

if (ans):
    print("Yes")
else:
    print("No")
```

## Python program to get the third side of right-angled triangle from two given sides

```
from math import sqrt
print ("Input lengths of shorter triangle sides: ")
a=float(input("a: "))
b=float(input("b: "))
c=sqrt(a**2 + b**2)
print("length of the hypotenuse is: ",c)

Input lengths of shorter triangle sides:
a: 9
b: 7
length of the hypotenuse is: 11.40175425099138
```

## Python program to print the frequency of each of the characters present in a given string

```
In [8]:
         string=input("Enter the string ")
         freq=[None]*len(string)
         for i in range(0,len(string)):
           freq[i]=1
           for j in range(i+1,len(string)):
             if(string[i]==string[j]):
                 freq[i]=freq[i]+1
                 string=string[:j]+'0'+string[j+1:];
         print("Character and their frequency");
         for i in range(0,len(freq)):
             if(string[i]!=' ' and string[i]!='0'):
                 print(string[i]+"="+str(freq[i]))
        Enter the string iloveindia
        Character and their frequency
        i=3
        1=1
        o=1
        v=1
        e=1
        n=1
        d=1
        a=1
```