

In []: *#Write a python program to find the factorial of a number:*

```
In [7]: def factorial(n):  
        if n==0:  
            return 1  
        else:  
            return n*factorial(n-1)  
  
n=int(input("Input a number to compute the factorial : "))  
print (factorial(n))
```

Input a number to compute the factorial : 2
2

In []: *#Write a python program to find whether a number is prime or composite:*

```
In [9]: n=int(input("Enter a natural number :"))  
  
if n < 1:  
    print("Number needs to be greater than 1")  
elif n==1:  
    print(n,"is nither prime nor composite")  
  
else:  
    for d in range(2,(n//2)+1):  
        if ((n%d)==0):  
            print(n,"is a composite number")  
            break  
    else:  
        print(n,"is a prime number")
```

Enter a natural number :3
3 is a prime number

In []: *#Write a python program to check whether a given string is palindrome or not:*

```
In [12]: s=input("Enter a string:")  
r=(s[::-1])  
if r==s:  
    print("palindrome")  
  
else:  
    print("not palindrome")
```

Enter a string:clear
not palindrome

In []: *#Write a python program to get the third side of a right-angle triangle from two*

```
In [18]: import math

a = float(input("Enter base: "))
b = float(input("Enter height: "))

c = math.sqrt(a ** 2 + b ** 2)

print("Hypotenuse =", c)
```

Enter base: 3
Enter height: 4
Hypotenuse = 5.0

In []: *#Write a python program to print the frequency of each of the chatacters present*

```
In [25]: str1=input("Enter the string : ")
d1 = dict()
for c in str1:
    if c in d1:
        d1[c] = d1[c] + 1
    else:
        d1[c] = 1
print(d1)
```

Enter the string : STTRUUGRRDD
{ 'S': 1, 'T': 2, 'R': 3, 'U': 2, 'G': 2, 'D': 2 }

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