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In [2]: # program to find the factorial of a number

num=int(input("Enter the number : "))
fact=1
if num<0:
    print("factorial of negative numbers does not exist.")
else:
    if num==0:
        print("The factorial of 0 is 1.")
    else:
        for i in range(1,num+1):
            fact=fact*i

        print("The factorial of ",num," is : ",fact)
```

Enter the number : 5
The factorial of 5 is : 120

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In [ ]: # program to find whether a given number is prime or composite?

num1=int(input("Enter the number : "))

if num1>1:
    for i in range(2,num1):
        if(num1%i)==0:
            print(num1," is not a prime number.")
            break
    else:
        print(num1," is a prime number.")
else:
    print(num1," is not a prime number.")
```

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In [15]: # program to find whether the given string is palindrome or not?

x="malayalam"

w=""

for i in x:
    w=i+w
if (x==w):
    print("yes")
else:
    print("No")
```

yes

```
In [18]: # program to find the third side of a right angled triangle from the other two sides.

import math

a=float(input("Enter the first side of the triangle : "))
b=float(input("Enter the second side of the triangle : "))

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

print(" The third side of the given right angled triangle having sides ",a," and ",b," is : ",c)
```

Enter the first side of the triangle : 3
Enter the second side of the triangle : 4
The third side of the given right angled triangle having sides 3.0 and 4.0 is : 5.0

```
In [19]: # program to find the frequency of each element in the given string

test_str="GoGoaGone"

res={}

for keys in test_str:
    res[keys]=res.get(keys,0)+1

print("Count of all characters in GoGoaGone is : \n" + str(res))
```

Count of all characters in GoGoaGone is :
{'G': 3, 'o': 3, 'a': 1, 'n': 1, 'e': 1}

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In [ ]:
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