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In [2]: #find factorial of number
import math
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In [4]: def factorial(n):
        return(math.factorial(n))
num = 5
print("Factorial of",num,"is",
factorial(num))
```

Factorial of 5 is 120

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In [5]: #find whether a number is prime or composite
num = 29
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")
```

29 is a prime number

```
In [10]: #find third side of right-angled triangle from two given sides.
def pythagoras(opposite_side,adjacent_side,hypotenuse):
    if opposite_side == str("x"):
        return ("Opposite = " + str(((hypotenuse**2) - (adjacent_side**2))**0.5))
    elif adjacent_side == str("x"):
        return ("Adjacent = " + str(((hypotenuse**2) - (opposite_side**2))**0.5))
    elif hypotenuse == str("x"):
        return ("Hypotenuse = " + str(((opposite_side**2) + (adjacent_side**2))**0.5))

print(pythagoras(3,4,'x'))
print(pythagoras(3,'x',5))
print(pythagoras('x',4,5))
```

Hypotenuse = 5.0
Adjacent = 4.0
Opposite = 3.0

```
In [11]: # print the frequency of each of the characters present in a given string
test_str = "InternshipforFliprobo"
all_freq = {}
for i in test_str:
    if i in all_freq:
        all_freq[i] += 1
    else:
        all_freq[i] = 1
print("Count of all characters in InternshipforFliprobo is :\n" + str(all_freq))
```

Count of all characters in InternshipforFliprobo is :
{ 'I': 1, 'n': 2, 't': 1, 'e': 1, 'r': 3, 's': 1, 'h': 1, 'i': 2, 'p': 2, 'f': 1, 'o': 3, 'F': 1, 'l': 1, 'b': 1 }

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In [ ]:
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