In [3]:
```
#Write a Python Program to Find the Factorial of a Number?

def factorial(a):
    fact=1
    while(a>1):
        fact*=a
        a-=1
    print(fact)

factorial(10)
```

```
3628800
```

In [8]:
```
#Write a python program to find whether a number is prime or composite

num=int(input('Enter any number :'))
if num>1:
    for i in range(2,num):
        print(num,'is not a prime number')
        break
    else:
        print(num,'is a prime number')
elif num==0 or 1:
    print(num,'is neither a prime nor a composite number')
else:
    print(num,'is not prime number it is a composite number')
```

```
Enter any number :2
2 is a prime number
```

In [11]:
```
#Write a python program to check whether a given string is palindrome or not.

def checkPalindrome(s):

    rev = ''.join(reversed(s))


    if (s == rev):
        return True
    return False


# main function

s = str(input("Enter the string to check for palindrome or not : "))
ans = checkPalindrome(s)

if (ans):
    print("Yes, The String is Palindrome")
else:
    print("No, The String is not Palindrome")
```

```
Enter the string to check for palindrome or not : level
Yes, The String is Palindrome
```

In [12]:
```
#Write a Python program to get the third side of right-angled triangle from two given s
```

```
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.
        else:
            return "You know the answer!"
```

In [13]:

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

```
Hypotenuse = 5.0
Adjacent = 4.0
Opposite = 3.0
You know the answer!
```

In [3]:

```
#Write a python program to print the frequency of each of the characters present in a g

#Program:

string ="internship"
print("Given String: ",string)
res = {}

for keys in string:
    res[keys] = res.get(keys, 0) + 1
    print("Frequency of each character :\n ",res)
```

```
Given String:  internship
Frequency of each character :
  {'i': 1}
Frequency of each character :
  {'i': 1, 'n': 1}
Frequency of each character :
  {'i': 1, 'n': 1, 't': 1}
Frequency of each character :
  {'i': 1, 'n': 1, 't': 1, 'e': 1}
Frequency of each character :
  {'i': 1, 'n': 1, 't': 1, 'e': 1, 'r': 1}
Frequency of each character :
  {'i': 1, 'n': 2, 't': 1, 'e': 1, 'r': 1}
Frequency of each character :
  {'i': 1, 'n': 2, 't': 1, 'e': 1, 'r': 1, 's': 1}
Frequency of each character :
  {'i': 1, 'n': 2, 't': 1, 'e': 1, 'r': 1, 's': 1, 'h': 1}
Frequency of each character :
  {'i': 2, 'n': 2, 't': 1, 'e': 1, 'r': 1, 's': 1, 'h': 1}
Frequency of each character :
  {'i': 2, 'n': 2, 't': 1, 'e': 1, 'r': 1, 's': 1, 'h': 1, 'p': 1}
```

In [ ]: