Q11 to Q15 are programming questions. Answer them in Jupyter Notebook.

1. Write a python program to find the factorial of a number

In [1]:
```
num = 7

factorial = 1

if num < 0:
   print("Sorry, factorial does not exist for negative numbers")
elif num == 0:
   print("The factorial of 0 is 1")
else:
   for i in range(1,num + 1):
       factorial = factorial*i
   print("The factorial of",num,"is",factorial)
```

```
The factorial of 7 is 5040
```

1. Write a python program to find whether a number is prime or composite.

In [2]:
```
num = 29

flag = False

if num == 1:
    print(num, "is not a prime number")
elif num > 1:

    for i in range(2, num):
        if (num % i) == 0:
            flag = True
            break

    if flag:
        print(num, "is not a prime number")
    else:
        print(num, "is a prime number")
```

```
29 is a prime number
```

1. Write a python program to check whether a given string is palindrome or not.

In [3]:
```
my_str = 'aIbohPhoBiA'

my_str = my_str.casefold()

rev_str = reversed(my_str)

if list(my_str) == list(rev_str):
   print("The string is a palindrome.")
else:
   print("The string is not a palindrome.")
```

```
The string is a palindrome.
```

1. Write a Python program to get the third side of right-angled triangle from two given sides.

In [4]:
```
import math

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

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

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

```
Enter base: 15.5
Enter height: 6.5
Enter angle: 70
Hypotenuse = 16.80773631397161
```

1. Write a python program to print the frequency of each of the characters present in a given string

In [6]:
```
string = "Solo Life"

for i in string:
    frequency = string.count(i)
    print(str(i) + ": " + str(frequency), end=", ")
```

```
S: 1, o: 2, l: 1, o: 2,  : 1, L: 1, i: 1, f: 1, e: 1,
```

In [ ]:
```

```