Problem Statement

Given 2 int values, return True if first parameter is negative and second parameter is positive or vice versa. Except if the third parameter is True, then return True only if first two parameters are negative.

Constraints

Test Cases

pos_neg(1, -1, False) → True pos_neg(-1, 1, False) → True pos_neg(-4, -5, True) → True pos_neg(-1, 1, True) -> False pos_neg(1, 6, True) -> False pos_neg(-1, -9, False) -> False

In [1]:

```
def pos_neg(a,b,bool):
    if bool:
        if a<0 and b<0:
            return True
        else:
            return False
    else:
        if (a<0 and b>0) or (a>0 and b<0):
            return True
        else:
            return False
```

In [4]:

```
pos_neg(-1,-4,True)
```

Out[4]:

```
True
```

Problem Statement

Create a Random Number Generator which takes the Range(lb, ub) and returns a Random number in the given range. lb < random number < ub

Constraints

Test Cases¶

RandomGenerator(1, 100) -> will be in range (1,100)

In [8]:

```
import random
def RandomNumberGenerator(lb,ub):
    print(random.randrange(lb,ub))
RandomNumberGenerator(0, 10)
```

```
1
```

Problem Statement

Given an integer N, calculate the sum of N random numbers in the range [0, 1000000000000000)

In [7]:

```
import random
def sumOfNRandomNumbers(n):
    sum=0
    i=0
    while i<n:
        sum=sum+random.randrange(0,1000000000000000)
        i+=1
    print(sum)
sumOfNRandomNumbers(6)
```

```
1769939335610595
```

Problem Statement

Design a procedure to perform Linear search on list of N unsorted unique numbers. It take an array and the key element to be searched and returns the index of the element of key element if found. Else returns -1

Constraints

Test Cases

linearSearch([1,4,8,0,3,5,6], 3) -> 4 linearSearch([15, 12, 9, 6, 3, -3], 0) -> -1 linearSearch([321, 543, 567, 789], 567) -> 2

In [5]:

```
def linearSearch(n): ## "n" represents number of elements to be entered into list
    list=[]
    flag=0
    for i in range(n):
        num=int(input("Enter Number"))
        list.append(num)
    keyElement=int(input("Enter Key element to be Searched"))
    i=0
    while i<len(list):
        if list[i]==keyElement:
            print(i)
            flag=1
        i+=1
    if(flag==0):
        print(-1)
```

In [6]:

```
linearSearch(5)
```

```
Enter Number1
Enter Number2
Enter Number3
Enter Number4
Enter Number5
Enter Key element to be Searched3
2
```

In [9]:

```
def ls(list,key):
    i=0
    flag=0
    while i<len(list):
        if list[i]==key:
            print(i)
            flag=1
        i+=1
    if (flag==0):
        print(-1)
```

In [11]:

```
ls([1,2,4,6,7,8],0)
```

```
-1
```