Binary Search in Python

I/P: l = [10, 20, 30, 40, 50, 60]
x = 20

O/P: 1

I/P: l = [5, 15, 25]
x = 25

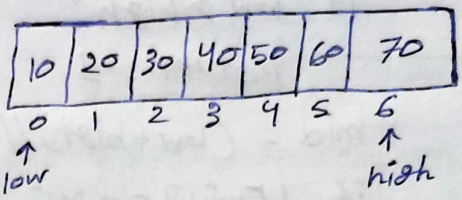
O/P: 2

I/P: l = [5, 10, 15, 25, 35]
x = 20

O/P: -1

I/P: l = [10, 10]
x = 10

O/P: 0 OR 1



mid = (low + high)//2

case 1: (l[mid] == x) x = 40 → return mid

case 2: (l[mid] > x) x = 10 → high = mid-1

case 3: (l[mid] < x) x = 60 → low = mid+1

```
def bSearch(l, x):
    low = 0
    high = len(l) - 1
    while low <= high:
        mid = (low + high) // 2
        if l[mid] == x:
            return mid
        elif l[mid] < x:
            low = mid + 1
        else:
            high = mid - 1
    return -1
```