Started on	Tuesday, 21 October 2025, 2:22 PM
State	Finished
Completed on	Tuesday, 21 October 2025, 2:48 PM
Time taken	26 mins 23 secs
Marks	10.00/10.00
Grade	**100.00** out of 100.00

Question 1

Correct Mark 1.00 out of 1.00

An list contains N numbers and you want to determine whether two of the numbers sum to a given number K. For example, if the input is 8, 4, 1, 6 and K is 10, the answer is yes (4 and 6). A number may be used twice.

Input Format

The first line contains a single integer n , the length of list

The second line contains n space-separated integers, list[i].

The third line contains integer k.

Output Format

Print Yes or No.

Sample Input

7

0 1 2 4 6 5 3

1

Sample Output

Yes

For example:

Input	Result

`5`
`8 9 12 15 3`
`11`
	`Yes`

`6`
`2 9 21 32 43 43 1`
`4`
	`No`

Answer: (penalty regime: 0 %)

```
n=int(input())
x=input().split()
l=[]
for i in x:
    l=l+[int(i)]
s=int(input())
f=False
for i in range(n):
    for j in range(n):
        if i!=j and l[i]+l[j]==s:
            f=True
            break
    if f:
        break
if f:
    print("Yes")
else:
    print('No')
```

	Input	Expected	Got	
✓	5 8 9 12 15 3 11	Yes	Yes	✓
✓	6 2 9 21 32 43 43 1 4	No	No	✓
✓	6 13 42 31 4 8 9 17	Yes	Yes	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2 Correct Mark 1.00 out of 1.00

String should contain only the words are not palindrome.

Sample Input 1

Malayalam is my mother tongue

Sample Output 1

is my mother tongue

Answer: (penalty regime: 0 %)

```
a=input().split()
b=''
for i in a:
    if i.lower()!=i[::-1].lower():
        b=b+i+' '
print(b)
```

	Input	Expected	Got	
✓	Malayalam is my mother tongue	is my mother tongue	is my mother tongue	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3 Correct Mark 1.00 out of 1.00

Two string values S1, S2 are passed as the input. The program must print first N characters present in S1 which are also present in S2.

Input Format:

The first line contains S1.
The second line contains S2.
The third line contains N.

Output Format:

The first line contains the N characters present in S1 which are also present in S2.

Boundary Conditions:

2 <= N <= 10
2 <= Length of S1, S2 <= 1000

Example Input/Output 1:

Input:

abcbde
cdefghbb
3

Output:

bcd

Note:

b occurs twice in common but must be printed only once.

Answer: (penalty regime: 0 %)

```
s1=input()
s2=input()
n=int(input())
result=''
for i in s1:
    if i in s2 and i not in result:
        result=result+i
    if len(result)==n:
        break
print(result)
```

	Input	Expected	Got	
✓	abcbde cdefghbb 3	bcd	bcd	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct Mark 1.00 out of 1.00

Write a Python program for binary search.

For example:

Input	Result
1,2,3,5,8 6	False
3,5,9,45,42 42	True

Answer: (penalty regime: 0 %)

```
x=input().split(',')
l=[]
for i in x:
    l=l+[int(i)]
n=int(input())
l.sort()
low=0
high=len(l)-1
f=False
while low<=high:
    mid=(low+high)//2
    if l[mid]==n:
        f=True
        break
    elif l[mid]<n:
        low=mid+1
    else:
        high=mid-1
print(f)
```

	Input	Expected	Got	
✓	1,2,3,5,8 6	False	False	✓
✓	3,5,9,45,42 42	True	True	✓
✓	52,45,89,43,11 11	True	True	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5 | Correct Mark 1.00 out of 1.00

Given an array `nums` containing `n` distinct numbers in the range `[0, n]`, return *the only number in the range that is missing from the array.*

Example 1:

```
Input: nums = [3,0,1]
Output: 2
Explanation: n = 3 since there are 3 numbers, so all numbers are in the range [0,3]. 2 is the missing number in the range since it does
not appear in nums.
```

Example 2:

```
Input: nums = [0,1]
Output: 2
Explanation: n = 2 since there are 2 numbers, so all numbers are in the range [0,2]. 2 is the missing number in the range since it does
not appear in nums.
```

Example 3:

```
Input: nums = [9,6,4,2,3,5,7,0,1]
Output: 8
Explanation: n = 9 since there are 9 numbers, so all numbers are in the range [0,9]. 8 is the missing number in the range since it does
not appear in nums.
```

For example:

Test	Result
`print(missingNumber([3,0,1]))`	2
`print(missingNumber([0,1]))`	2

Answer: (penalty regime: 0 %)

Reset answer

```python
def missingNumber(numbers):
    n=len(numbers)
    ex=n*(n+1)//2
    s=sum(numbers)
    return ex-s
```

	Test	Expected	Got	
✓	`print(missingNumber([3,0,1]))`	2	2	✓

	Test	Expected	Got	
✓	`print(missingNumber([0,1]))`	2	2	✓
✓	`print(missingNumber([9,6,4,2,3,5,7,0,1]))`	8	8	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 6

Correct Mark 1.00 out of 1.00

Given two Strings s1 and s2, remove all the characters from s1 which is present in s2.

Constraints

1<= string length <= 200

Sample Input 1

```
experience
enc
```

Sample Output 1

```
xpri
```

Answer: (penalty regime: 0 %)

```
s1=input()
s2=input()
for i in s1:
    if i not in s2:
        print(i,end='')
```

	Input	Expected	Got	
✓	experience enc	xpri	xpri	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 7 Correct Mark 1.00 out of 1.00

Balanced strings are those that have an equal quantity of 'L' and 'R' characters.

Given a balanced string s, split it in the maximum amount of balanced strings.

Return the maximum amount of split balanced strings.

Example 1:

Input:

RLRRLLRLRL

Output:

4

Explanation: s can be split into "RL", "RRLL", "RL", "RL", each substring contains same number of 'L' and 'R'.

Example 2:

Input:

RLLLLRRRLR

Output:

3

Explanation: s can be split into "RL", "LLLRRR", "LR", each substring contains same number of 'L' and 'R'.

Example 3:

Input:

LLLLRRRR

Output:

1

Explanation: s can be split into "LLLLRRRR".

Constraints:

1 <= s.length <= 1000

s[i] is either 'L' or 'R'.

s is a balanced string.

For example:

Test	Result
`print(BalancedStrings('RLRRLLRLRL'))`	4
`print(BalancedStrings('RLLLLRRRLR'))`	3

Answer: (penalty regime: 0 %)

Reset answer

```
def BalancedStrings(s):
    c=0
    result=0
    for i in s:
        if i =='R':
            c=c+1
        else:
            c=c-1
        if c==0:
            result=result+1
    return result
```

	Test	Expected	Got	
✓	`print(BalancedStrings('RLRRLLRLRL'))`	4	4	✓
✓	`print(BalancedStrings('RLLLLRRRLR'))`	3	3	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 8

Correct Mark 1.00 out of 1.00

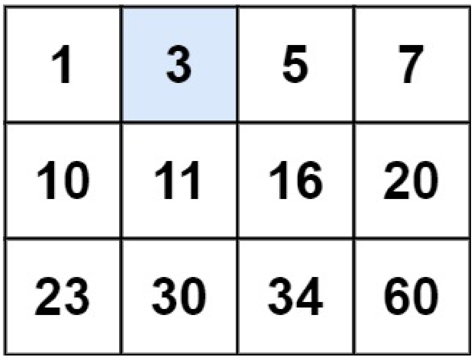
You are given an `m x n` integer matrix `matrix` with the following two properties:

- Each row is sorted in non-decreasing order.
- The first integer of each row is greater than the last integer of the previous row.

Given an integer `target`, return `True` *if* `target` *is in* `matrix` *or* `False` *otherwise*.

You must write a solution in `O(log(m * n))` time complexity.

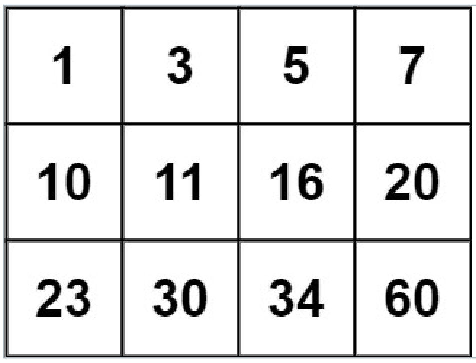
Example 1:



1	3	5	7
10	11	16	20
23	30	34	60

```
Input: matrix = [[1,3,5,7],[10,11,16,20],[23,30,34,60]], target = 3
Output: True
```

Example 2:



1	3	5	7
10	11	16	20
23	30	34	60

```
Input: matrix = [[1,3,5,7],[10,11,16,20],[23,30,34,60]], target = 13
Output: False
```

For example:

Test	Result
`print(searchMatrix([[1,3,5,7],[10,11,16,20],[23,30,34,60]], 13))`	False
`print(searchMatrix([[1,3,5,7],[10,11,16,20],[23,30,34,60]], 3))`	True

Answer: (penalty regime: 0 %)

Reset answer

```
def searchMatrix(matrix: list[list[int]], target: int) -> bool:
    if not matrix or not matrix[0]:
        return False
    row=len(matrix)
    col=len(matrix[0])
    left=0
    right=row*col-1
    while left<=right:
        mid=(left+right)//2
        mv=matrix[mid//col][mid%col]
        if mv==target:
            return True
        elif mv<target:
            left=mid+1
        else:
            right=mid-1
    return False
```

	Test	Expected	Got	
✓	`print(searchMatrix([[1,3,5,7],[10,11,16,20],[23,30,34,60]], 13))`	False	False	✓
✓	`print(searchMatrix([[1,3,5,7],[10,11,16,20],[23,30,34,60]], 3))`	True	True	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 9 Correct Mark 1.00 out of 1.00

Given an array of integers nums which is sorted in ascending order, and an integer target, write a function to search target in nums. If target exists, then return its index. Otherwise, return -1.

You must write an algorithm with O(log n) runtime complexity.

Example 1:

```
Input: nums = [-1,0,3,5,9,12], target = 9
Output: 4
Explanation: 9 exists in nums and its index is 4
```

Example 2:

```
Input: nums = [-1,0,3,5,9,12], target = 2
Output: -1
Explanation: 2 does not exist in nums so return -1
```

Constraints:

- 1 <= nums.length <= 10^4
- -10^4 < nums[i], target < 10^4
- All the integers in nums are **unique**.
- nums is sorted in ascending order.

For example:

Test	Result
print(search([-1,0,3,5,9,12],9))	4

Answer: (penalty regime: 0 %)

Reset answer

```
def search(nums: list[int], target: int) -> int:
    a=0
    for i in range(len(nums)):
        if target==nums[i]:
            a=i
            break
    else:
        a=-1
    return a
```

	Test	Expected	Got	
✓	print(search([-1,0,3,5,9,12],9))	4	4	✓

	Test	Expected	Got	
✓	`print(search([-1,0,3,5,9,12],2))`	-1	-1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 10 Correct Mark 1.00 out of 1.00

Given an list, find peak element in it. A peak element is an element that is greater than its neighbors.

An element a[i] is a peak element if

A[i-1] <= A[i] >=a[i+1] for middle elements. [0<i<n-1]

A[i-1] <= A[i] for last element [i=n-1]

A[i]>=A[i+1] for first element [i=0]

Input Format

The first line contains a single integer n , the length of A .
The second line contains n space-separated integers,A[i].

Output Format

Print peak numbers separated by space.

Sample Input

5

8 9 10 2 6

Sample Output

```
10 6
```

For example:

Input	Result
4 12 3 6 8	12 8

Answer: (penalty regime: 0 %)

```
n=int(input())
x=input().split()
l=[]
for i in x:
    l=l+[int(i)]
for i in range(len(l)):
    if i+1>=len(l):
        if l[i]>l[i-1]:
            print(l[i])
    else:
        if l[i]>l[i+1]:
            print(l[i],end=' ')
```

	Input	Expected	Got	
✓	7 15 7 10 8 9 4 6	15 10 9 6	15 10 9 6	✓

	Input	Expected	Got	
✓	4 12 3 6 8	12 8	12 8	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.