Started on	Friday, 24 May 2024, 9:26 AM
State	Finished
Completed on	Saturday, 25 May 2024, 9:27 AM
Time taken	1 day
Marks	5.00/5.00
Grade	**100.00** out of 100.00

Question **1**

Correct

Mark 1.00 out of 1.00

Write a program to eliminate the common elements in the given 2 arrays and print only the non-repeating elements and the total number of such non-repeating elements.

Input Format:

The first line contains space-separated values, denoting the size of the two arrays in integer format respectively.

The next two lines contain the space-separated integer arrays to be compared.

Sample Input:

5 4

1 2 8 6 5

2 6 8 10

Sample Output:

1 5 10

3

Sample Input:

5 5

1 2 3 4 5

1 2 3 4 5

Sample Output:

NO SUCH ELEMENTS

For example:

Input	Result
5 4 1 2 8 6 5 2 6 8 10	1 5 10 3

Answer: (penalty regime: 0 %)

```
def find_non_repeating(arr1, arr2):
    # Convert arrays to sets to remove duplicates and find common elements
    set1 = set(arr1)
    set2 = set(arr2)

    # Find non-repeating elements by taking the symmetric difference of the sets
    non_repeating = set1.symmetric_difference(set2)

    return non_repeating, len(non_repeating)

# Input
size1, size2 = map(int, input().split())
arr1 = list(map(int, input().split()))
arr2 = list(map(int, input().split()))

# Find and print non-repeating elements
non_repeating_elements, count = find_non_repeating(arr1, arr2)

# Print non-repeating elements without curly brackets and commas
print(' '.join(map(str, non_repeating_elements)))
print(count)
```

	Input	Expected	Got	
✓	5 4 1 2 8 6 5 2 6 8 10	1 5 10 3	1 5 10 3	✓
✓	3 3 10 10 10 10 11 12	11 12 2	11 12 2	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Given a tuple and a positive integer k, the task is to find the count of distinct pairs in the tuple whose sum is equal to **K**.

Examples:

Input: t = (5, 6, 5, 7, 7, 8), K = 13
Output: 2
Explanation:
Pairs with sum K(= 13) are {(5, 8), (6, 7), (6, 7)}.
Therefore, distinct pairs with sum K(= 13) are { (5, 8), (6, 7) }.
Therefore, the required output is 2.

For example:

Input	Result
1,2,1,2,5 3	1
1,2 0	0

Answer: (penalty regime: 0 %)

```
def count_distinct_pairs(t, k):
    count = 0
    seen_pairs = set()  # To keep track of seen pairs
    for i in range(len(t)):
        for j in range(i + 1, len(t)):
            if t[i] + t[j] == k:
                # Check if the pair is not already seen
                if (t[i], t[j]) not in seen_pairs and (t[j], t[i]) not in seen_pairs:
                    count += 1
                    seen_pairs.add((t[i], t[j]))  # Add the pair to seen pairs
    return count

# Get input from the user for the tuple
t = tuple(map(int, input().split(',')))

# Get input from the user for the target sum
k = int(input())

# Call the function and print the result
print(count_distinct_pairs(t, k))

```

	Input	Expected	Got	
✓	5,6,5,7,7,8 13	2	2	✓
✓	1,2,1,2,5 3	1	1	✓
✓	1,2 0	0	0	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Given an array of integers `nums` containing `n + 1` integers where each integer is in the range `[1, n]` inclusive.There is only **one repeated number** in `nums`, return *this repeated number*. Solve the problem using set.

Example 1:

```
Input: nums = [1,3,4,2,2]
```

```
Output: 2
```

Example 2:

```
Input: nums = [3,1,3,4,2]
```

```
Output: 3
```

For example:

Input	Result
1 3 4 4 2	4

Answer: (penalty regime: 0 %)

```
def find_duplicate(nums):
    seen=set()
    for num in nums:
        if num in seen:
            return num
        seen.add(num)
nums=list(map(int,input().split()))
print(find_duplicate(nums))
```

	Input	Expected	Got	
✓	1 3 4 4 2	4	4	✓
✓	1 2 2 3 4 5 6 7	2	2	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**

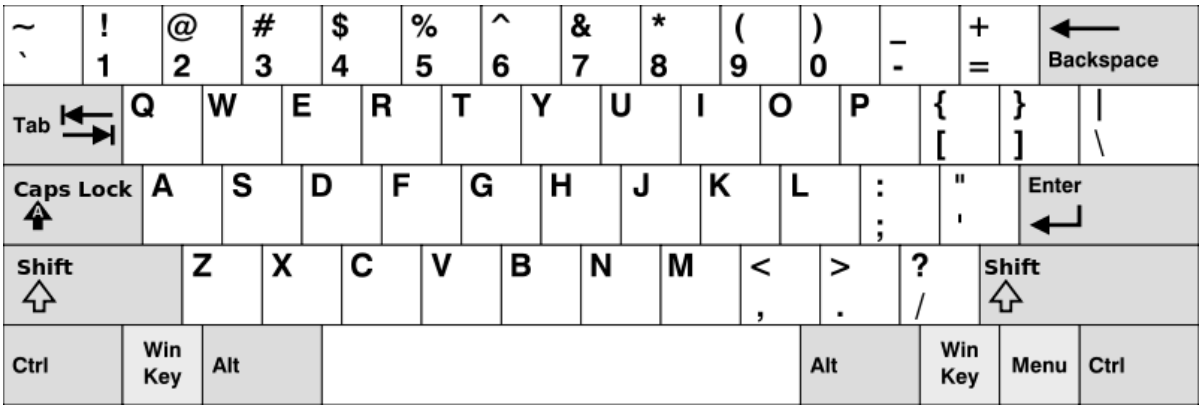
Correct

Mark 1.00 out of 1.00

Given an array of strings `words`, return *the words that can be typed using letters of the alphabet on only one row of American keyboard like the image below.*

In the **American keyboard**:

- the first row consists of the characters `"qwertyuiop"`,
- the second row consists of the characters `"asdfghjkl"`, and
- the third row consists of the characters `"zxcvbnm"`.



Example 1:

```
Input: words = ["Hello","Alaska","Dad","Peace"]
Output: ["Alaska","Dad"]
```

Example 2:

```
Input: words = ["omk"]
Output: []
```

Example 3:

```
Input: words = ["adsdf","sfd"]
Output: ["adsdf","sfd"]
```

For example:

Input	Result
4 Hello Alaska Dad Peace	Alaska Dad
2 adsfd afd	adsfd afd

Answer: (penalty regime: 0 %)

```
A = int(input())
words = [input() for _ in range(A)]
rows = [set("qwertyuiop"), set("asdfghjkl"), set("zxcvbnm")]
result = [word for word in words if any(set(word.lower()).issubset(row) for row in rows)]
if result:
```

```
    print("\n".join(result))
else:
    print("No words")
```

	Input	Expected	Got	
✓	4 Hello Alaska Dad Peace	Alaska Dad	Alaska Dad	✓
✓	1 omk	No words	No words	✓
✓	2 adsfd afd	adsfd afd	adsfd afd	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

There is a malfunctioning keyboard where some letter keys do not work. All other keys on the keyboard work properly.

Given a string text of words separated by a single space (no leading or trailing spaces) and a string brokenLetters of all distinct letter keys that are broken, return the number of words in text you can fully type using this keyboard.

Example 1:

Input: text = "hello world", brokenLetters = "ad"

Output:

1

Explanation: We cannot type "world" because the 'd' key is broken.

For example:

Input	Result
hello world ad	1
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Answer: (penalty regime: 0 %)

```
a=input()
b=input()
c=[]
for char in a:
    if char in b and char not in c:
        c.append(char)
results="".join(c)
res=len(c)
print(res)
```

	Input	Expected	Got	
✓	hello world ad	1	1	✓
✓	Welcome to REC e	1	1	✓
✓	Faculty Upskilling in Python Programming ak	2	2	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ Week7_MCQ

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Dictionary ►