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<b>Started on</b>	Tuesday, 21 May 2024, 1:52 PM
<b>State</b>	Finished
<b>Completed on</b>	Wednesday, 22 May 2024, 10:09 PM
<b>Time taken</b>	1 day 8 hours
<b>Marks</b>	5.00/5.00
<b>Grade</b>	<b>100.00</b> out of 100.00

## Question 1

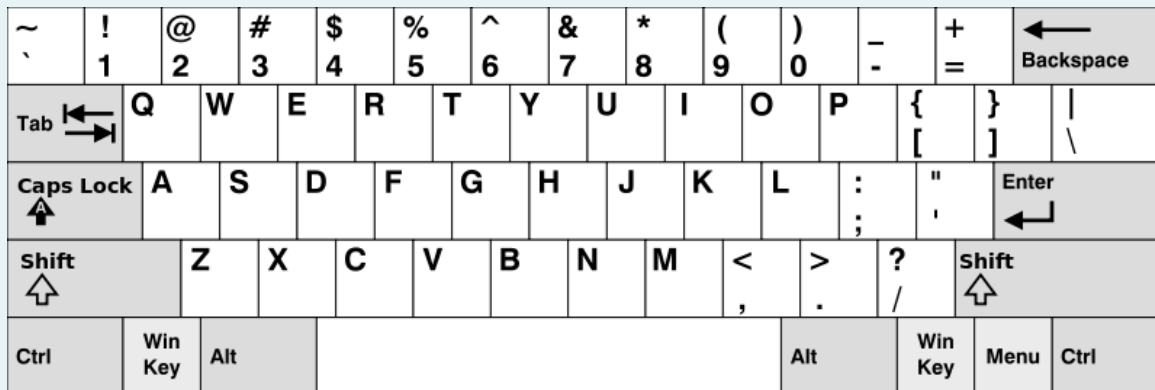
Correct

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	Alaska
Hello	Dad
Alaska	
Dad	
Peace	
2	adsfd
adsfd	afd
afd	

Answer: (penalty regime: 0 %)

```

1 def findWords(words):
2     """
3     :type words: List[str]
4     :rtype: List[str]
5     """
6     rows = ["qwertyuiop", "asdfghjkl", "zxcvbnm"]
7     result = []
8     for word in words:
9         row_found = False
10        for row in rows:
11            if set(word.lower()) <= set(row):
12                row_found = True

```

```

13         break
14     if row_found:
15         result.append(word)
16     return result
17
18 # Get user input for words (without instructions)
19 num_words = int(input())
20 words = []
21 for _ in range(num_words):
22     word = input()
23     words.append(word)
24
25 # Find words on one row
26 one_row_words = findWords(words)
27
28 # Print results with empty set handling
29 if not one_row_words:
30     print("No words")
31 else:
32     print("\n".join(one_row_words))
33

```

	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 2

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 %)

```

1 a=input()
2 b=input()
3 c=[]
4 for char in a:
5     if char in b and char not in c:
6         c.append(char)
7 results="".join(c)
8 res=len(c)
9 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.

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 %)

```

1 nums = list(map(int, input().split()))
2
3 seen = []
4 for num in nums:
5     if num in seen:
6         print(num)
7         break
8     seen.append(num)
9

```

	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

Coders here is a simple task for you, Given string str. Your task is to check whether it is a binary string or not by using python [set](#).

Examples:

Input: str = "01010101010"

Output: Yes

Input: str = "REC101"

Output: No

For example:

Input	Result
01010101010	Yes
010101 10101	No

Answer: (penalty regime: 0 %)

```
1 a=(input())
2 if a.isdigit():
3     print("Yes")
4 else :
5     print("No")
6
```

	Input	Expected	Got	
✓	01010101010	Yes	Yes	✓
✓	REC123	No	No	✓
✓	010101 10101	No	No	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

## Question 5

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 %)

```

1 t = tuple(map(int, input().split(',')))
2 K = int(input())
3
4 seen = {}
5 distinct_pairs = set()
6
7 for num in t:
8     complement = K - num
9     if complement in seen and seen[complement] > 0:
10         distinct_pairs.add((min(num, complement), max(num, complement)))
11         seen[complement] -= 1
12     else:
13         seen[num] = seen.get(num, 0) + 1
14
15 print(len(distinct_pairs))
16

```

	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.

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[Dictionary ▶](#)