

# Superior Characters



Given a string, a character is said to be *superior* if it has two neighboring letters that are strictly smaller than itself. We compare characters by their location in the alphabet.

More formally, we say that the character at the  $i^{\text{th}}$  position is *superior* if a character exists at the  $(i - 1)^{\text{th}}$  position and  $(i + 1)^{\text{th}}$  position, and the character at the  $i^{\text{th}}$  position is strictly greater than the character at both  $(i - 1)^{\text{th}}$  and  $(i + 1)^{\text{th}}$  positions.

Given the frequencies of the **26** lowercase English letters, form a string using all these characters, such that the resultant string has the maximum number of superior characters. You need to print the maximum number of superior characters.

Complete the function `maximumSuperiorCharacters` which takes in an array of **26** integers denoting the frequencies of the English letters and returns an integer denoting the maximum number of superior characters.

## Input Format

The first line contains an integer  $t$ , denoting the number of test cases.

Each of the next  $t$  lines contains **26** space-separated integers denoting the frequencies of the characters from `a` to `z`.

## Constraints

- $1 \leq t \leq 10^4$
- $0 \leq \text{frequency} \leq 10^9$

## Output Format

Print the maximum number of superior characters that can be present in any string formed by using all the given characters.

## Sample Input 0

```
5
0 0 0 0 2 0 0 0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0
1 2 2 3 4 0 3 4 4 1 3 1 4 4 1 0 0 0 0 0 4 2 3 2 2 1
1 1 3 3 1 1 4 4 3 1 3 3 3 0 1 2 0 4 2 1 3 0 3 1 1 1
3 3 0 2 2 2 4 1 2 1 1 1 3 3 0 0 3 2 2 4 1 4 4 1 2 1
2 1 4 1 0 2 0 3 1 2 0 3 1 1 2 0 1 4 2 3 2 3 2 0 2 1
```

## Sample Output 0

```
1
25
24
25
21
```

## Explanation 0

In the first test case, we have two `es`, one `l`, one `s`, and none of the other letters. We can form a string with one superior character, for example, `else`. One can also show that this is the maximum number of superior characters that can be present. Thus, the answer is **1**. There are also many other permutations of characters possible to form a string with maximum superior characters.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26  
a b c d e f g h i j k l m n o p q r s t u v w x y z

With the given frequency of 2 **e**s, 1 **l** and 1 **s**,

PermutationsNumber of superior characters

e l s e	1
e e l s	0
e s l e	1
e e s l	1
e l e s	1
e s e l	1
l s e e	1
l e e s	0
l e s e	1
s e e l	0
s l e e	0
s e l e	1