2167 - Taxi Travel

Description

After the contest **n** groups of students went outside and decided to visit Fox to celebrate his birthday. We know that the i-th group consists of **S** friends (1<=S<=4), and they want to go to Fox together. They decided to get there by taxi. Each car can carry at most four passengers. What minimum number of cars will the students need if all members of each group should ride in the same taxi (but one taxi can take more than one group)?

Input specification

First a integer number 1 <= t <= 100, representing the number of tests, and for each:

The first line contains integer **n** (1<=**n**<=**10**^4) - the number of groups of students. The second line contains a sequence of integers **s1**,**s2**,...,**sn** (1<=**si**<=4). The integers are separated by a space, **si** is the number of student in the **i-th** group.

Output specification

For each tests case, print the single number in one line - the minimum number of taxis necessary to drive all students to Fox.

Sample input

```
2
5
1 2 4 3 3
8
2 3 4 4 2 1 3 1
```

Sample output

4 5

Hint(s)

Source

VK Cup 2012 Qualification Contest

Added by

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Time limit (ms) 10000

Test limit (ms) 1000

Memory limit (kb) 256000

Output limit (mb) 64

Size limit (bytes) 30000

Enabled languages

Bash C C# C++ Java Pascal Perl PHP

Python Ruby Text