Friday the 13th

Problem ID: friday
CPU Time limit: 1 second
Memory limit: 1024 MB
Difficulty: 1.7

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On the planet Htrae Friday the 13th is a lucky day. You are going there on the next space ship and want to calculate how many times it happens during a given year. Unfortunately they change their calendar every year. Every year starts on a Sunday, but other than that, they change everything. They have released a list of calendar specifications for the next few years. A calendar specification consists of the total number of days in the year, the number of months in the year, and the number of days in each of the months.

Your task is to figure out how many times there will be Friday the 13th based on the calendar specifications.

Input

The first line of the input consists of a single integer, T, the number of test cases.
The first line of each of the T test cases is a line with two space separated integers, D and M, the total number of days in the year and the number of months in the year respectively. The second line of each test case consists of M space separated integers, d_i, the number of days in each month.

- $1 \leq T \leq 20$
- $1 \leq M \leq D \leq 1000$
- $1 \leq d_i \leq 100$
- $\sum(d_i) = D$

Output

For each test case, output the number of Friday the 13ths in the specified year.

Sample Input 1

```
3
20 1
20
40 2
21 19
365 12
31 28 31 30 31 30 31 31 30 31 30 31
```

Sample Output 1

```
1
2
2
```