

Problem E

Fenced Area

Time limit: 1 second

The NCPC park has many squared fenced areas of grasslands and ponds. Aerial image of a fenced area with two ponds on a 10x10 grid is shown in Fig. 1, in which the grassland is shown in green and the fence and ponds are shown in black. The image can be encoded by a run of grassland squares (green) and non-grass squares (black). For Fig. 1, the encoding is 12 6 3 1 6 1 2 1 1 1 4 1 2 1 3 2 1 4 3 1 2 6 4 2 3 7 3 3 14. This encoding indicates that, from top-left to bottom-right, the aerial image contains 12 green squares followed by 6 black squares and then 3 green squares, and then 1 black squares, ..., 3 black squares, and finally 14 green squares. Note that the run of green or black squares can continue onto the next row when it reaches end of a row.

Given encoding of an aerial image of a fenced area, determine the number of grass squares within this fenced area.

Technical Specification:

1. The aerial image has at most 75 rows and 75 columns.
2. There is exactly one fenced area within each given aerial image. Fence thickness may vary at different places.
3. There can be 0 or more irregular shaped ponds within the fenced area. There are no ponds outside of the fenced area.

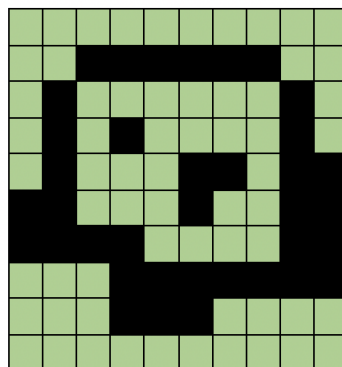


Figure 1: There are 24 grass squares within the fenced area.

Input File Format

The first line contains an integer, indicating the number of test cases to follow. For each test case, there are two lines of integers: the first line contains one integers m , indicating the given image is represented by a grid of m rows by m columns. The second line contains a number of integers which is the encoding of the grid image. Encoding always start with green squares. The end of the encoding is denoted by -1.

Output Format

For each test case, print on one line the number of grassy grids within the enclosed fenced area.

Sample Input

```
3
5
0 6 3 2 3 2 3 6 -1
7
1 5 2 1 3 1 2 3 1 1 6 1 2 6 1 2 1 2 2 5 1 -1
10
12 6 3 1 6 1 2 1 1 1 4 1 2 1 3 2 1 4 3 1 2 6 4 2 3 7 3 3 14 -1
```

Note: Sample input 3 corresponds to Fig. 1.

Output for the Sample Input

```
9
1
24
```