

Problem I

Traffic load

The National Institute of Traffic frequently measures how much traffic there is on our roads. Their means for doing so is to put two pressure sensitive cords across the road a few meters apart. When a car drives over a cord, a little box at the end of the cord registers the time, once for each wheel-pair of course. A car coming from the left therefore gives rise to four time stamps:



- One at time t ms at the left cord for the front wheel-pair.
- One at time $t + 500$ ms at the left cord for the rear wheel-pair.
- One at time $t + 1000$ ms at the right cord for the front wheel-pair.
- One at time $t + 1500$ ms at the right cord for the rear wheel-pair.

Of course, with a car coming from the right the situation is the same with the roles of left and right swapped. Given the two lists of time stamps, you are to tell how many cars came from the left. At most one car is passing over a cord at a time.

Input specifications

On the first line of input is a single positive integer $1 \leq n \leq 100$ specifying the number of test cases to follow. Each test case begins with a positive even integer $m \leq 200$ on a line of itself telling the number of time stamps in each of the two cord boxes. Next follow m strictly increasing positive integers less than 10^9 telling the time stamps of the left cord box. Then follow m strictly increasing positive integers less than 10^9 telling the time stamps of the right cord box.

Output specifications

For each test case there should be one line of output containing the number of cars which came from the left.

Sample input

```
2
4
17 517 1432 1932
432 932 1017 1517
6
235 451 735 951 2351 2851
1235 1351 1451 1735 1851 1951
```

Output for sample input

```
1
2
```