

Problem D

MC Lottery

Input file: *testdata.in*

Time limit: 1 second

Problem Description

To balance the budget deficit, the city government of Monte Carlo has decided to issue the new MC lottery. The playing rule is as follows. Each patron is allowed to select n ($1 \leq n \leq 50$) magic numbers from $\{1, 2, 3, \dots, 200\}$. Every night a lucky number m ($1 \leq m \leq 9000$) will be drawn. A ticket wins a price if some of the selected n magic numbers add up exactly to the lucky number m . A ticket wins \$1,000 if there is exactly one way to add the selected magic numbers to the lucky number, \$2,000 for two ways, and so on. In general, a ticket wins k thousand dollars if there are exactly k ways to add the selected magic numbers to the lucky number. You are hired by the city government of Monte Carlo to develop a program that allows patrons to find prices won by their tickets.

Input Format

Input will consist of a series of tickets. The first line contains the number of tickets to check. Each ticket will consist of (a) n : number of magic numbers selected by patron, followed by (b) those n magic numbers, and finally (c) m : the lucky number. Two input values are separated by one white space or a newline.

Output Format

Output will consist of a series of n lines, one for each ticket from the input. Each line will consist of the price money won by that ticket.

Sample Input

```
3
10
1 2 3 4 5
11 12 13 14 15
100
5
5 4 3 2 1
10
5 11 12 13 4 5 9
```

Sample Output

```
0
3000
1000
```