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Probability to win   🔒 locked

Problem	Submissions	Leaderboard	Discussions

Raghav is a professional gambler. He went to a new casino today and decided to bet with all his money.

The new casino offers a game that includes tossing a die of N faces twice. Each face of the die has a number, which may or maynot be distinct. To win, Raghav must get a number X in his first toss and a second number Y on his second toss.

Assuming that Raghav gets each face of the die with the same probability on each toss and that tosses are mutually independent, what is the probability that Raghav will win?

Input Format

- The first line of the input contains a single integer T denoting the number of test cases. The description of T test cases follows.

- The first line of each test case contains three space-separated integers N, X and Y.

- The second line contains N space-separated integers $x_1, x_2, ..., x_N$ denoting the numbers written on the faces of the die.

Constraints

- $1 \leq T \leq 70$

- $1 \leq N \leq 104$

- $1 \leq X \leq N$

- $1 <= Y \leq N$

- $1 \leq x_i \leq N$ for each valid i

Output Format

For each test case, print a single line containing one real number the probability that Raghav will win.

Sample Input 0

```
2
5 1 1
1 1 1 1 1
2 1 1
1 2
```

Sample Output 0

```
1.0000000000
0.2500000000
```

Submissions: 8
Max Score: 5
Difficulty: Easy

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