

## Problem A

You have a skewed random number generator that outputs the number  $i$  with percentage  $\text{probs}[i]$ . Given that you have generated  $n$  numbers, return the probability (between 0 and 1) that value has been generated more times than any of the other numbers.

- $\text{probs}$  will contain between 1 and 5 elements inclusive.
- Each element of  $\text{probs}$  will be between 1 and 100 inclusive.
- The elements of  $\text{probs}$  will sum to 100.
- $n$  will be between 1 and 15 inclusive.
- value will be between 0 and  $N-1$  inclusive, where  $N$  is the number of elements in  $\text{probs}$ .

See examples for input/output format.

```
A.IN
3
2
50 50
0
2
50 50
9
0
4
5 50 20 25
15
1
```

A.OUT  
0.25  
0.5  
0.7947486656372071