

Shopping Rush

A shop-keeper is trying to figure out how to arrange gifts in his shop for Christmas. He runs a peculiar shop such that each customer buys exactly two gifts at the shop (he could buy two of the same gifts too). He knows the probability that a customer might want gift i , is P_i .

He needs to arrange the gifts across several floors. Each floor should have exactly one gift. It takes $A \cdot (|x - y|)^2 + B \cdot (|x - y|) + C$ seconds to go from floor x to floor y .

Can you help him arrange the gifts across floors such that, the expected time spent by a shopper is minimized?

For the purpose of this problem assume that the first gift choice and the second gift choice are independent of each other. i.e., Choosing a first gift as i does not change his probability of choosing the second gift as j . It still remains P_j .

INPUT

The first line contains the number of test cases T . $2 \cdot T$ lines follow, 2 per test case. The first line contains 4 integers : N, A, B, C . The second line contains N integers in the range 1 to 100. The i th integer represents the percentage probability P_i . All P_i 's will sum to 100.

OUTPUT

Output T lines one for each test case. Each line contains the minimum expected travelling time for the corresponding test case. Output the answer as a reduced fraction as below.

CONSTRAINTS

$$1 \leq T \leq 100$$

$$1 \leq N \leq 20$$

$$0 \leq A, B, C \leq 10$$

SAMPLE INPUT

```
4
3 0 1 0
60 10 30
1 1 1 0
100
1 1 1 3
100
4 3 7 2
25 25 25 25
```

SAMPLE OUTPUT

```
3/5
0/1
3/1
73/4
```