A A Lot of Paintings

Time limit: 1s



Panda is a gallery curator. To prepare for an art exhibition, he launched a painting collection activity, and has collected a lot of paintings.

There are n people participating in the activity, numbered from 1 to n. For each person i, the number of paintings submitted is b_i. The total number of paintings is $m = \sum_{i=1}^{n} b_i > 0$. The submission percentage a_i of person i is calculated as $a_i = \text{round}\left(\frac{b_i}{m}, 2\right) \times 100\%$.

The function $\text{round}(x, 2)$ rounds the real number x to two decimal places. If the third decimal digit of x is 5 or greater, it rounds up; otherwise, it rounds down. For example, $\text{round}(1.14514, 2) = 1.15$, while $\text{round}(1.14414, 2) = 1.14$.

One day, Panda woke up to find that all the paintings had been stolen, and he also forgot the total number of paintings, m. He needs your help to restore the possible number of paintings submitted by each participant $b_1, b_2, \ldots, b_n$ using only the recorded submission percentages $a_1, a_2, \ldots a_n$. If no valid submission scheme exists, you must inform him.

In simple terms, given an array of percentages $a = [a_1, a_2, \ldots a_n]$, find a non-negative integer array $b = [b_1, b_2, \ldots, b_n]$ such that $\sum_{i=1}^{n} b_i > 0$, and for all i:

$$a_i = \text{round}\left(\frac{b_i}{\sum_{j=1}^{n} b_j}, 2\right) \times 100\%$$

or determine that no such array exists.

Input

The first line contains an integer T ($1 \le T \le 2 \times 10^5$), indicating the number of test cases.

For each test case, the first line contains an integer n ($1 \le n \le 2 \times 10^5$), representing the number of people participating in the painting activity.

The second line contains n non-negative integers $d_1, d_2, \ldots, d_n$ ($0 \le d_i \le 100$), where $a_i = \frac{d_i}{100} \times 100\%$.

It is guaranteed that the total sum of n across all test cases does not exceed 2×10^5.

Output

For each test case, if there exists a satisfying array b, you should first output a line with `Yes`, followed by a line with n non-negative integers $b_1, b_2, \ldots, b_n$ ($0 \le b_i \le 10^9$, $\sum_{i=1}^{n} b_i > 0$) separated by spaces. Any valid solution is accepted.

If there is no valid solution, simply output a line with `No`. Either `Yes` or `No` is case-insensitive, which means you can print `YeS`, `yEs`, `nO`, etc.

Sample Input 1	Sample Output 1
3 4 25 25 25 25 5 25 25 25 26 0 3 0 0 1	Yes 1 1 1 1 Yes 25 25 25 26 0 No

This page is intentionally left blank.