Problem G. Sequence Operation 1

Given an integer sequence a of length n with values in $[0, 2]$.

An operation is defined as choosing an index $x \in [1, n-2]$:

- Let $s = (a_x + a_{x+1} + a_{x+2}) \bmod 3$, then set a_x, a_{x+1}, a_{x+2} all to s simultaneously.

You need to perform some operations (possibly none) to maximize the sum of all elements in sequence a. Additionally, you must provide a valid operation sequence whose length does not exceed $\lfloor \frac{5}{7}n \rfloor + 100$.

Input

This problem has multiple test cases.

The first line contains an integer T — the number of test cases.

For each test case:

The first line contains an integer n — the length of sequence a.

The second line contains n integers, where the i-th integer is a_i.

Output

For each test case:

The first line should contain two integers s and K — the maximum sum of the sequence and the number of operations, respectively. You must ensure $0 \le K \le \lfloor \frac{5}{7}n \rfloor + 100$.

The next line should contain K positive integers, where the i-th integer is the index x chosen in the i-th operation.

Example

standard input	standard output
3 3 0 1 0 5 0 2 1 2 2 7 1 1 1 1 1 1 1	3 1 1 10 4 2 2 3 1 14 5 1 3 4 5 1

Note

For 100% of the data, it is guaranteed that $1 \le T \le 1000$, $\sum n \le 10^6$, $3 \le n \le 10^6$, $0 \le a_i \le 2$.