Problem A. Let's Write Lab1 Happily

Time limit 1000 ms
Memory limit 256MB

Problem Description

Since this is the first question of Lab1, let's start with an easy one to warm up.

In this problem, I will give you n pairs, and I want you to sort them according to the following rules:

1. First, compare the 'first' value of the pair. If the 'first' values are different, sort them in descending order.
2. If the 'first' values are the same, then sort by the 'second' value's parity (odd numbers first, even numbers second).
3. If the 'second' values have the same parity, sort them in ascending order.
4. If all previous criteria are the same, keep the order of input, with earlier inputs appearing first.

After sorting, please output the indices of the pairs.

Input format

The first line contains a single integer n ($1 \leq n \leq 2 \times 10^5$).

Then, for the following n lines, the i-th line contains 2 integers f_i and s_i ($1 \leq f_i, s_i \leq 10^9$), which represent the 'first' and 'second' values, respectively.

Output format

Output the indices of the pairs after sorting.

Subtask score

Subtask	Score	Additional Constraints
1	40	$n \leq 3000$
2	35	a_i is distinct, $b_i = 1\ \forall i$
3	25	No constraints

Sample

Sample Input 1

```
5
1 1
2 3
2 2
1 4
2 2
```

Sample Output 1

```
2 3 5 1 4
```

Notes

In example, the array after sorting is $\{(2,3),(2,2),(2,2),(1,1),(1,4)\}$.