Check if a binary tree is a Red-Black tree or not.



Given a binary tree in the multiple array representation format, you are asked to verify if the tree is a Red Black tree. Your code returns either 1 if it is indeed a RBTree or 0 if it is not. The binary tree is stored as a two dimensional array composed of 5 columns. The first column is the index, the 2nd column is the key, the 3rd column is the index of the left child, the 4th column is the index of the right child and the 5th column is the color (1 is black and 0 is red). This is very similar to the binary tree show in slide 41 in set lec7.

Input Format

number or nodes/lines

index key left_index right_index color

Constraints

no constraints

Output Format

0 or 1

Sample Input 0

```
7
0 6 1 6 1
1 4 2 5 0
2 2 3 4 1
3 1 -1 -1 0
4 3 -1 -1 0
5 5 -1 -1 1
6 7 -1 -1 1
```

Sample Output 0

```
1
```