You are given an array colors, in which there are three colors: 1, 2 and 3.

You are also given some queries. Each query consists of two integers i and c, return the shortest distance between the given index i and the target color c. If there is no solution return -1.

**Example 1:**

**Input:** colors = [1,1,2,1,3,2,2,3,3], queries = [[1,3],[2,2],[6,1]]

**Output:** [3,0,3]

**Explanation:**

The nearest 3 from index 1 is at index 4 (3 steps away).

The nearest 2 from index 2 is at index 2 itself (0 steps away).

The nearest 1 from index 6 is at index 3 (3 steps away).

**Example 2:**

**Input:** colors = [1,2], queries = [[0,3]]

**Output:** [-1]

**Explanation:** There is no 3 in the array.

**Constraints:**

* 1 <= colors.length <= 5\*10^4
* 1 <= colors[i] <= 3
* 1 <= queries.length <= 5\*10^4
* queries[i].length == 2
* 0 <= queries[i][0] < colors.length
* 1 <= queries[i][1] <= 3