A **critical point** in a linked list is defined as **either** a **local maxima** or a **local minima**.

A node is a **local maxima** if the current node has a value **strictly greater** than the previous node and the next node.

A node is a **local minima** if the current node has a value **strictly smaller** than the previous node and the next node.

Note that a node can only be a local maxima/minima if there exists **both** a previous node and a next node.

Given a linked list head, return *an array of length 2 containing*[minDistance, maxDistance]*where*minDistance*is the****minimum distance****between****any two distinct****critical points and*maxDistance*is the****maximum distance****between****any two distinct****critical points. If there are****fewer****than two critical points, return*[-1, -1].

**Example 1:**

Diagram

Description automatically generated

**Input:** head = [3,1]

**Output:** [-1,-1]

**Explanation:** There are no critical points in [3,1].

**Example 2:**



**Input:** head = [5,3,1,2,5,1,2]

**Output:** [1,3]

**Explanation:** There are three critical points:

- [5,3,**1**,2,5,1,2]: The third node is a local minima because 1 is less than 3 and 2.

- [5,3,1,2,**5**,1,2]: The fifth node is a local maxima because 5 is greater than 2 and 1.

- [5,3,1,2,5,**1**,2]: The sixth node is a local minima because 1 is less than 5 and 2.

The minimum distance is between the fifth and the sixth node. minDistance = 6 - 5 = 1.

The maximum distance is between the third and the sixth node. maxDistance = 6 - 3 = 3.

**Example 3:**



**Input:** head = [1,3,2,2,3,2,2,2,7]

**Output:** [3,3]

**Explanation:** There are two critical points:

- [1,**3**,2,2,3,2,2,2,7]: The second node is a local maxima because 3 is greater than 1 and 2.

- [1,3,2,2,**3**,2,2,2,7]: The fifth node is a local maxima because 3 is greater than 2 and 2.

Both the minimum and maximum distances are between the second and the fifth node.

Thus, minDistance and maxDistance is 5 - 2 = 3.

Note that the last node is not considered a local maxima because it does not have a next node.

**Example 4:**

Diagram

Description automatically generated

**Input:** head = [2,3,3,2]

**Output:** [-1,-1]

**Explanation:** There are no critical points in [2,3,3,2].

**Constraints:**

* The number of nodes in the list is in the range [2, 105].
* 1 <= Node.val <= 105