Given the head of a singly linked list that is sorted in **non-decreasing** order using the **absolute values** of its nodes, return *the list sorted in****non-decreasing****order using the****actual values****of its nodes*.

**Example 1:**

Diagram

Description automatically generated

**Input:** head = [0,2,-5,5,10,-10]

**Output:** [-10,-5,0,2,5,10]

**Explanation:**

The list sorted in non-descending order using the absolute values of the nodes is [0,2,-5,5,10,-10].

The list sorted in non-descending order using the actual values is [-10,-5,0,2,5,10].

**Example 2:**

Diagram

Description automatically generated

**Input:** head = [0,1,2]

**Output:** [0,1,2]

**Explanation:**

The linked list is already sorted in non-decreasing order.

**Example 3:**

**Input:** head = [1]

**Output:** [1]

**Explanation:**

The linked list is already sorted in non-decreasing order.

**Constraints:**

* The number of nodes in the list is the range [1, 105].
* -5000 <= Node.val <= 5000
* head is sorted in non-decreasing order using the absolute value of its nodes.

**Follow up:**

* Can you think of a solution with O(n) time complexity?