

2130. Maximum Twin Sum of a Linked List

Description

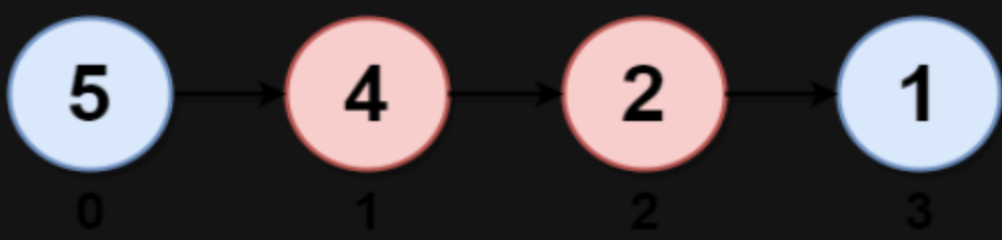
In a linked list of size `n`, where `n` is **even**, the `ith` node (**0-indexed**) of the linked list is known as the **twin** of the `(n-1-i)th` node, if `0 <= i <= (n / 2) - 1`.

- For example, if `n = 4`, then node `0` is the twin of node `3`, and node `1` is the twin of node `2`. These are the only nodes with twins for `n = 4`.

The **twin sum** is defined as the sum of a node and its twin.

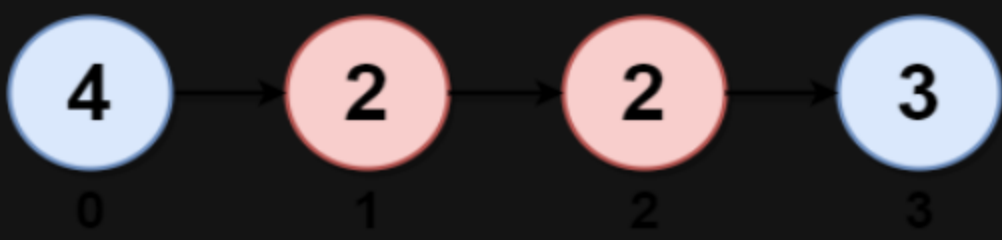
Given the `head` of a linked list with even length, return *the maximum twin sum of the linked list*.

Example 1:



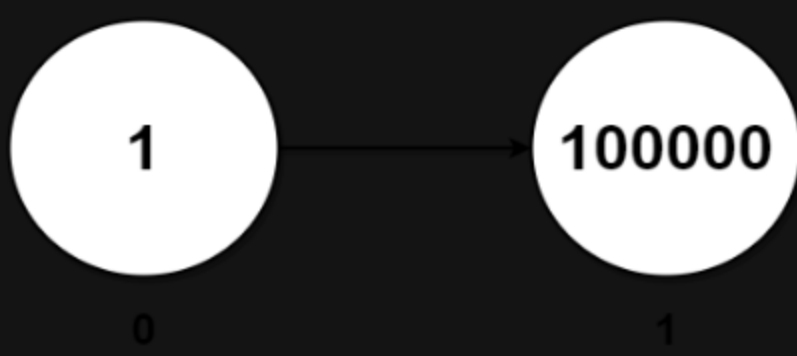
Input: `head = [5,4,2,1]`
Output: `6`
Explanation:
Nodes `0` and `1` are the twins of nodes `3` and `2`, respectively. All have twin sum = `6`.
There are no other nodes with twins in the linked list.
Thus, the maximum twin sum of the linked list is `6`.

Example 2:



Input: `head = [4,2,2,3]`
Output: `7`
Explanation:
The nodes with twins present in this linked list are:
– Node `0` is the twin of node `3` having a twin sum of `4 + 3 = 7`.
– Node `1` is the twin of node `2` having a twin sum of `2 + 2 = 4`.
Thus, the maximum twin sum of the linked list is `max(7, 4) = 7`.

Example 3:



Input: `head = [1,100000]`
Output: `100001`
Explanation:
There is only one node with a twin in the linked list having twin sum of `1 + 100000 = 100001`.

Constraints:

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

