

Week 4

Topic: Recursion

50. Pow(x, n)

- Difficulty: Medium
- Problem URL: <https://leetcode.com/problems/powx-n/>
- Description:
給定浮點數 x ，整數 n ，設計函式以計算 x^n 值。

Example1:

Input: $x = 2.00000$, $n = 10$

Output: 1024.00000

Example2:

Input: $x = 2.10000$, $n = 3$

Output: 9.26100

Example3:

Input: $x = 2.00000$, $n = -2$

Output: 0.25000

詳細說明與約束條件請參考 *Leetcode* 網站。

24. Swap Nodes in Pairs

- Difficulty: Medium
- Problem URL: <https://leetcode.com/problems/swap-nodes-in-pairs/>

Description:

給定一個 `ListNode`，請交換每兩個相鄰的節點，並返回新的首節點。

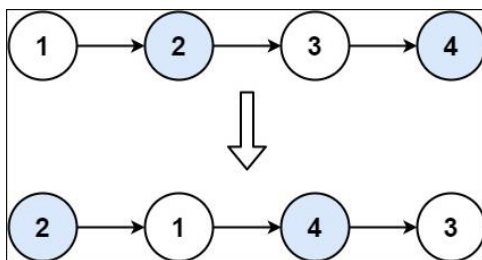
只能交換節點本身，不能修改 `ListNode` 中節點的值。

Example1:

Input: head = [1,2,3,4]

Output: [2,1,4,3]

Explanation:



Example2:

Input: head = []

Output: []

Example3:

Input: head = [1]

Output: [1]

Example4:

Input: head = [1,2,3]

Output: [2,1,3]

詳細說明與約束條件請參考 *Leetcode* 網站。

25. Reverse Nodes in k-Group

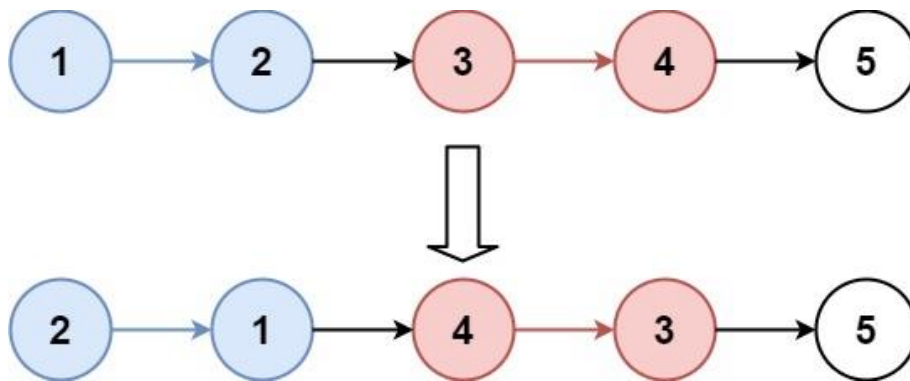
- Difficulty: Hard
- Problem URL: <https://leetcode.com/problems/reverse-nodes-in-k-group/>
- Description:
給定一個 `ListNode`，和正整數 `k`，將鏈表中每 `k` 個節點進行反轉，並返回新的首節點。

只能交換節點本身，不能修改 `ListNode` 中節點的值。

Example1:

Input: head = [1,2,3,4,5], k = 2

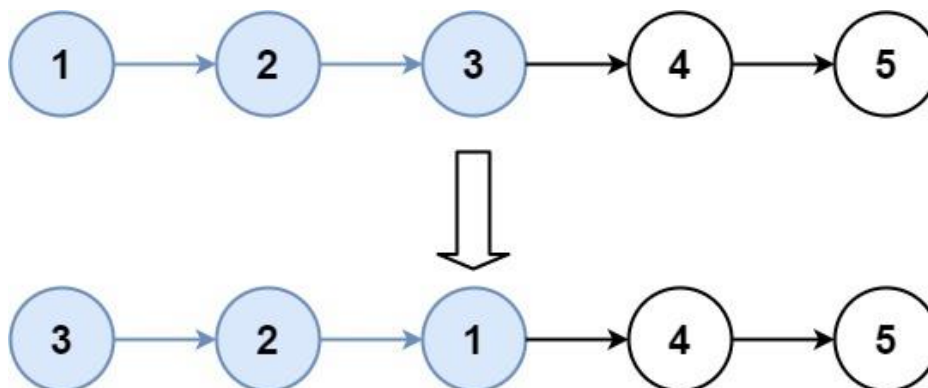
Output: [2,1,4,3,5]



Example2:

Input: head = [1,2,3,4,5], k = 3

Output: [3,2,1,4,5]



詳細說明與約束條件請參考 [Leetcode](https://leetcode.com/problems/reverse-nodes-in-k-group/) 網站。