

Multiply two linked lists

Given elements as nodes of the two singly linked lists. The task is to multiply these two linked lists, say L1 and L2.

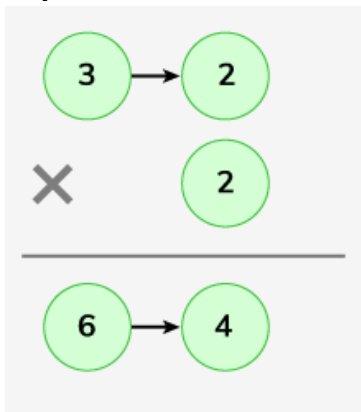
Note: The output could be large take modulo 10^9+7 .

Examples :

Input: LinkedList L1 : 3->2 , LinkedList L2 : 2

Output: 64

Explanation:

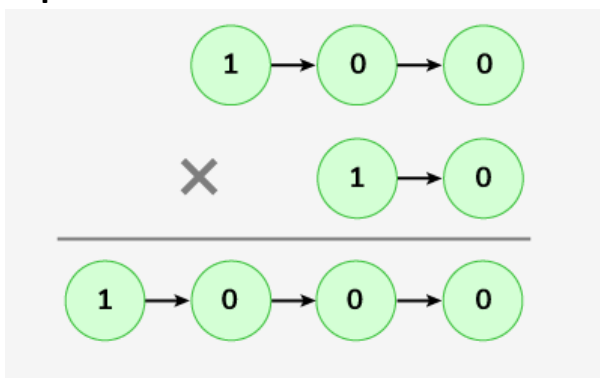


Multiplication of 32 and 2 gives 64.

Input: LinkedList L1: 1->0->0 , LinkedList L2 : 1->0

Output: 1000

Explanation:



Multiplication of 100 and 10 gives 1000.

Expected Time Complexity: $O(\max(n, m))$

Expected Auxilliary Space: $O(1)$

where n is the size of L1 and m is the size of L2