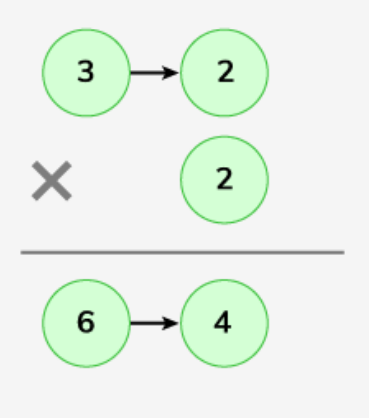
Given elements as nodes of the two singly linked lists. The task is to multiply these two linked lists, say L1 and L2.

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

Examples :

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

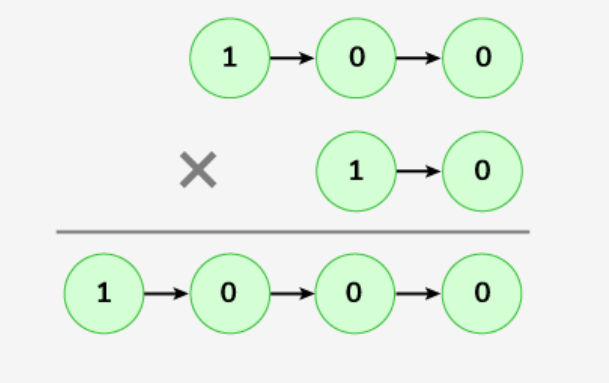
Output: 64
Explanation:



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

Constraints:

1 <= number of nodes <= 105

1 <= node->data <= 103

Solution:

```
class Solution {
   final static int mod=1000000007;
   public long multiplyTwoLists(Node first, Node second) {
      long num1 = 0;
      long num2 = 0;

      // Convert the first linked list to a number modulo mod
      while (first != null) {
         num1 = (num1 * 10 + first.data) % mod;
         first = first.next;
      }

      // Convert the second linked list to a number modulo mod
      while (second != null) {
         num2 = (num2 * 10 + second.data) % mod;
         second = second.next;
      }

      // Multiply the two numbers and return the result modulo mod
      return (num1 * num2) % mod;
   }
}
```