

# Add two numbers as a linked list

Source: techseries.dev

Origin: Microsoft

You are given two linked-lists representing two non-negative integers. The digits are stored in reverse order and each of their nodes contain a single digit. Add the two numbers and return it as a linked list.

Example:

Input: (2 -> 4 -> 3) + (5 -> 6 -> 4)

Output: 7 -> 0 -> 8

Explanation: 342 + 465 = 807.

Here is the function signature as a starting point (in Python):

```
# Definition for singly-linked list.
class ListNode(object):
    def __init__(self, x):
        self.val = x
        self.next = None
class Solution:
    def addTwoNumbers(self, l1, l2, c = 0):
        # Fill this in.
l1 = ListNode(2)
l1.next = ListNode(4)
l1.next.next = ListNode(3)
l2 = ListNode(5)
l2.next = ListNode(6)
l2.next.next = ListNode(4)
result = Solution().addTwoNumbers(l1, l2)
while result:
    print result.val,
    result = result.next
# 7 0 8
```