

## 2. Add Two Numbers

[Add to List](#)[Description \(?tab=Description\)](#)[Submission \(?tab=Submission\)](#)[Solutions \(?tab=Solutions\)](#)Total Accepted: **246854** Total Submissions: **926214** Difficulty: **Medium** Contributors: **Admin**[Notes](#)

You are given two **non-empty** 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.

You may assume the two numbers do not contain any leading zero, except the number 0 itself.

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

**Output:** 7 -> 0 -> 8

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Python



```
1 # Definition for singly-linked list.
2 # class ListNode(object):
3 #     def __init__(self, x):
4 #         self.val = x
5 #         self.next = None
6
7 class Solution(object):
8     def addTwoNumbers(self, l1, l2):
9         """
10         :type l1: ListNode
11         :type l2: ListNode
12         :rtype: ListNode
13         """
14
15         carry=0
16         temp=root=ListNode(0)
17         while l1 or l2 or carry:
18             v1=v2=0
19             if l1:
20                 v1=l1.val
21                 l1=l1.next
22             if l2:
23                 v2=l2.val
24                 l2=l2.next
25
26             sum=v1+v2+carry
27             carry=sum//10
```

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```
28
29         temp.next=ListNode(sum%10)
30         temp=temp.next
31
32     return root.next
```

**Custom Testcase** ☐**Contribute Testcase** 

Shortcut: Ctrl + '



Run Code

Submit Solution

 Notes

Run Code Status: Finished

Run Code Result: 

Your input

```
[2,4,3]
[5,6,4]
```

Your answer

```
[7,0,8]
```

Expected answer

```
[7,0,8]
```

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Runtime: 39 ms

Note: is Run Code inconsistent with Submit Solution? If you are using global variables or C/C++, check this (</faq/#different-output>) out.

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