



# Find Merge Point of Two Lists

by [harsha\\_s](#)

Problem

Submissions

Leaderboard

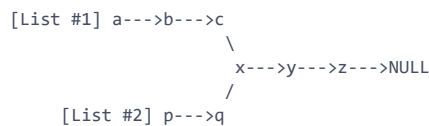
Discussions

Editorial

This challenge is part of a tutorial track by [MyCodeSchool](#)

Given pointers to the head nodes of **2** linked lists that merge together at some point, find the Node where the two lists merge. It is guaranteed that the two head Nodes will be different, and neither will be NULL.

In the diagram below, the two lists converge at Node **x** :



Complete the `int FindMergeNode(Node* headA, Node* headB)` method so that it finds and returns the data value of the Node where the two lists merge.

## Input Format

The `FindMergeNode(Node*,Node*)` method has two parameters, **headA** and **headB**, which are the non-null head Nodes of two separate linked lists that are guaranteed to converge.

*Do not read any input from stdin/console.*

## Output Format

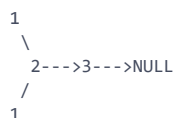
Each Node has a data field containing an integer; return the integer data for the Node where the two lists converge.

*Do not write any output to stdout/console.*

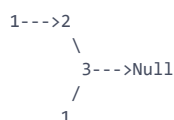
## Sample Input

The diagrams below are graphical representations of the lists that input Nodes **headA** and **headB** are connected to. Recall that this is a method-only challenge; the method only has initial visibility to those **2** Nodes and must explore the rest of the Nodes using some algorithm of your own design.

### Test Case 0



### Test Case 1



**Sample Output**

2  
3

**Explanation**

*Test Case 0:* As demonstrated in the diagram above, the merge Node's data field contains the integer **2** (so our method should return **2**).

*Test Case 1:* As demonstrated in the diagram above, the merge Node's data field contains the integer **3** (so our method should return **3**).

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Submissions: [37805](#)



Max Score: 5



Difficulty: Easy

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C++  

```
1  /*
2      Find merge point of two linked lists
3      Node is defined as
4      struct Node
5      {
6          int data;
7          Node* next;
8      }
9  */
10 int FindMergeNode(Node *headA, Node *headB)
11 {
12     // Complete this function
13     // Do not write the main method.
14 }
15
```

Line: 1 Col: 1

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☐ Test against custom input

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