

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 public class Program {
4     // O(n) time | O(1) space
5     public static LinkedList FindLoop(LinkedList head) {
6         LinkedList first = head.next;
7         LinkedList second = head.next.next;
8         while (first != second) {
9             first = first.next;
10            second = second.next.next;
11        }
12        first = head;
13        while (first != second) {
14            first = first.next;
15            second = second.next;
16        }
17        return first;
18    }
19
20    public class LinkedList {
21        public int value;
22        public LinkedList next = null;
23
24        public LinkedList(int value) {
25            this.value = value;
26        }
27    }
28 }
29
```