Plus One

Given a positive integer represented by an array of digits, add one to that number.  
  
Input: Array of integers  
Output: Array of integers

# Example

Input: [1,2,3] => Output: [1,2,4]

Input: [1, 9] => Output: [2,0]

# Constraints

Time Complexity: O(N)  
Auxiliary Space Complexity: O(1)  
  
The input array will be represented with the largest digit down to the ones digit at the last index.  
  
Values of the array will be digits 0-9.

# Solution

1. Loop backwards in the array
2. If current digit is between 0 and 8, add one to that digit and return the array
3. Else if digit is a 9, replace it with a 0 and continue
4. Outside the loop, insert a 1 to the beginning of the array and return

Step 4. will only occur if the loop completes without triggering the Step 2. condition.

# Notes

Must account for adding an extra digit if all digits are 9’s  
Input: [9,9,9] => Output: [1,0,0,0]

Common first round technical screen question for Google.

# Resources

https://leetcode.com/problems/plus-one/