

Adding One

Given a non-negative integer (without leading zeroes) represented as an array A of N digits. Your task is to add 1 to the number (increment the number by 1). The digits are stored such that the most significant digit is at the starting index of the array.

Example 1:

```
Input:
N = 4
A[] = {5, 6, 7, 8}
Output: 5 6 7 9
Explanation: 5678 + 1 = 5679
```

Example 2:

```
Input:
N = 3
A[] = {9, 9, 9}
Output: 1 0 0 0
Explanation: 999 + 1 = 1000
```

Your Task: You don't need to read input or print anything. Your task is to complete the function `addOne()` which takes the array of integers a and n as parameters and returns an list of integers denoting the answer.

Expected Time Complexity: $O(N)$ Expected Auxiliary Space: $O(N)$ for the list of integers used to store the returning result.

Constraints:

```
1 ≤ N ≤ 105
0 ≤ A[i] ≤ 9
```

There are no leading zeros in the input number.