

Blackboard and digit

While there was no one in the classroom, John decided to start writing natural numbers on the blackboard of his classroom. That is, he thinks of writing the integers 1, 2, ... and so on until he is exhausted. Now since John is not fond of the digit '3', he decides to not write the digit '3' at all on the board. Consequently, he decides to write the digit '4' wherever the digit '3' would have been expected. For instance after writing 129 on the board, John would write 140 instead of 130. As a consequence whenever John gets exhausted and he stops writing any more integers on the board, the number of integers written on the board and the last integer written on the board may be different.

Given the last integer written on the board, you have to find the total number of integers written on the board.

Input:

First line of input contains an integer T denoting the number of test cases

Next T lines each contain an integer N denoting the last integer that was written on the board

Output:

For each test case, output the total number of integers that were written on the board

Constraints:

$1 \leq T \leq 10^5$

$1 \leq N < 10^9$

Sample Input:

3
5
14
76

Sample Output:

4
12
59

Explanation:

In the first test case, John writes <1, 2, 4, 5> on the board which is a total of 4 integers written on the board

In the second test case, John writes <1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14> on the board which is a total of 12 integers written on the board