

LUCKYNINE

Mr. Nithyanandan likes number 9 very much. So he wanted to represent any number as a sum of numbers ending with 9.

For example he represents:

- 28 as 19+9
- 48 as 39+9 or 19+29
- 99 as 99 or 9+9+9+9+9+9+9+9+9+9+9

But he wants to minimize the number of summations since he's weak in mathematics.

Input

The first line consists of an integer t representing the number of test cases. Then for next t lines each line consists of an integer n ($0 \leq n \leq 10000$).

Output

For each test case output the minimum number of summations required. If it's impossible to represent then print Impossible.

EXAMPLE

Input:

5
28
48
99
15
1000

Output:

2
2
1
Impossible
10