The Next Number

Rishabh is obsessed with numbers 6 and 9 . So he wants to find the next greatest number for every number using the digits **6** and **9** only .

Help him accomplish his task .

Input

The first line contains **T** number of testcases .

Each line contains a number **N** as input .

Output

Output **T** lines containing the next greatest number .

Constraints

1 <= **T** <= 100

1 <= **N** <= 10^{1000}

Example

Input:
4
34
555
67
6

Output:
66
666
69
9