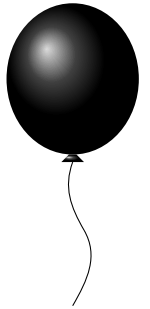




D Slightlee Fat

TIME LIMIT: 1.0s
MEMORY LIMIT: 256MB



Inverse of a positive integer x , $I(x)$, is a number of the same length y (potentially having leading zeroes), where $y_i = 9 - x_i$, y_i being the i -th digit of y and similarly x_i being the i -th digit of x .

Fatness of a positive integer x is defined as $F(x) = x \cdot I(x)$. You have to find the fatness of the fattest positive integer less than or equal to n .

Answer q separate test cases.

INPUT

The first line contains a single integer q ($1 \leq q \leq 10^5$) — the number of test cases you should answer.

In each of the next q lines, a test case is given.

Each test case contains a single integer n ($1 \leq n \leq 10^9$).

OUTPUT

For each test case, print a single integer, the fatness of the fattest positive integer less than or equal to n .

SAMPLES

Sample input 1	Sample output 1
5	20
7	89900
100	2450
58	8999999999000000000
1000000000	18
3	

