Interesting number

For the given number *n* find the minimal positive integer divisable by *n*, with the sum of digits equal to *n*.

Input

t – the number of test cases, then *t* test cases follow. (t <= 50)
Test case description:
n - integer such that 0 < *n* <= 1000

Output

For each test case output the required number (without leading zeros).

Example

Input:
2
1
10

Output:
1
190