# Ones and zeros

Certain positive integers have their decimal representation consisting only of ones and zeros, and having at least one digit one, e.g. 101. If a positive integer does not have such a property, one can try to multiply it by some positive integer to find out whether the product has this property.

## Input

Number *K* of test cases (*K* is approximately 1000);
in each of the next *K* lines there is one integer *n* (*1 <= n <= 20000)*

## Output

For each test case, your program should compute the smallest multiple of the number *n* consisting only of digits 1 and 0 (beginning with 1).

## Example

**Input:**
3
17
11011
17

**Output:**
11101
11011
11101