Project Euler #4: Largest palindrome product

This problem is a programming version of Problem 4 from projecteuler.net

A palindromic number reads the same both ways. The smallest 6 digit palindrome made from the product of two 3-digit numbers is $101101 = 143 \times 707$.

Find the largest palindrome made from the product of two 3-digit numbers which is less than N.

Input Format

First line contains T that denotes the number of test cases. This is followed by T lines, each containing an integer, N.

Constraints

- $1 \leqslant T \leqslant 100$
- $101101 < N < 1000000$

Output Format

Print the required answer for each test case in a new line.

Sample Input 0

```
2
101110
800000
```

Sample Output 0

```
101101
793397
```

Explanation 0

- 101101 is product of 143 and 707.
- 793397 is product of 869 and 913.