

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

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

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**.