

To begin the competition, we have a very simple problem. So hurry up and try to solve it as fast as possible!

Given a series of natural numbers, you have to output the double of each of them. So, for example, if the number is 7, you have to output 14. These numbers will always be between 1 and 10^6 .

Input

The input consists of a series of lines. Each line contains a natural number between 1 and 10^6 .

Output

For each input number, you have to output the double. You have to stop the output when the input is a palindrome prime number (after outputting its double also).

Sample Input

```
14
6
121
1
```

Sample Output

```
28
12
242
2
```