Closest Palindrome

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

Aya is bored during her math lessons (too easy). To keep herself occupied, she decides to play a game with her friend called Palindrome Game.

In this game, one of the girls gives a number n and the other has to find the closest palindrome number to n among all palindromes greater than or equal to n.

A palindrome number is a number that reads the same forward or backward. For example 12321, 100001 and 1 are palindrome numbers, while 112 and 1021 are not.

Aya knows that you are an excellent programmer and challenges you to write a program that can play the Palindrome Game. Your program should take a number n as input and output the closest palindrome number to n which is greater than or equal to n.

Input

A positive integer n ($1 \leq n \leq 10^6$).

Output

Output the closest palindrome number to n greater than or equal to n.

Examples

standard input	standard output
11	11
1337	1441

Note

In the first example, 11 is already palindrome.

In the second example, 1441 is the closest palindrome to 1337.