

Problem C

Clock and Primes

Time Limit: 1 second

Memory Limit: 1024 megabytes



Last year, Phidang bought a digital alarm clock that looks like the one above. This morning, it went off when Phidang accidentally dropped it. The clock stopped working but it still shows 11:21:80 instead of 08:12:11. Phidang realized that he was looking at it upside down. It made him think about the numbers showing on the clock the whole day. Some numbers are still numbers after turning them upside down as those displayed on Phidang's clock.



Phidang loves prime numbers. He wants to check whether a number is a prime and still a prime when it is turned upside down.

Noted that there are some digits are no longer valid if they are turned upside down such as 3, 4, and 7; some digits change their value such as 6 and 9; some keep their own value such as 0, 1, 2, 5, and 8.

Input

The input contains a single integer N ($1 \leq N \leq 10^{16}$) which is the number that needs to be checked. N does not have leading zeros.

Output

Print one line of output containing "yes" if the number is prime and still a prime if turned upside down, "no" otherwise.

Sample Input

Sample Output

151	yes
23	no
1811	yes