Crypting "helloworld"

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Hello World contest is finally here , Farouk want to trick some of the IEEE Computer Society ENIS Student Chapter members , so he decided to crypt the word "*helloworld*" by the following algorithm:

let's suppose $pos_a = 0$, $pos_b = 1, \ldots pos_z = 25$, he choose a number a and for every character c in the word "*helloworld*" he replaces it by the charatcter which it's position $= (a \cdot pos_c) \ mod(26)$ (where mod is the modulo operator that finds the remainder after division of one number by another).

He gave the crypted string to them and the number a , determine if they can decrypt the world to get "*helloworld*" or not (that means for every character in the given string they will be able to know the exact character that corrosponds to it).

Input

The input contains one integer a $(0 \le a \le 25)$.

Output

Print "YES" without quotes if they can decrypt the word to get "*helloworld*", otherwise print "NO" whithou quotes .

Examples

standard input	standard output
1	YES
2	NO