

Is it a Cyclops number? "Nobody" knows!

problem 11

5 points

Given an integer input, figure out whether or not it is a Cyclops Number.

What is a Cyclops number, you may ask? Well, it's a number whose binary representation only has one 0 in the center!

Examples:

Input	Cyclops?	Binary	Explanation
0	yes	0	only one zero at "center"
1	no	1	contains no zeroes
5	yes	101	only one zero at center
9	no	1001	contains two zeroes (even though both are at the center)
10	no	1010	contains two zeroes
27	yes	11011	only one zero at center
85	no	1010101	contains three zeroes
101	no	1100101	contains three zeroes
111	no	1101111	only one zero, not at center
119	yes	1110111	only one zero at center

Input

The input consists of up to seven lines, each line having an integer in the range zero to one billion, inclusive.

```
304
90211
27
730193
130815
119
987654321
```

Output

For each input line, the program should print the integer and a 'yes' or 'no' to indicate if the integer is a cyclops number.

```
304 no
90211 no
27 yes
730193 no
130815 yes
119 yes
987654321 no
```