From Skiena and Revilla, *Programming Challenges: The Programming Contest Training Manual*
Springer-Verlag, New York, 2003. ISBN: 0-387-00163-8.

110505 A Multiplication Game

Stan and Ollie play the game of multiplication by multiplying an integer p by one of the numbers 2 to 9. Stan always starts with $p = 1$, does his multiplication, then Ollie multiplies the number, then Stan, and so on. Before a game starts, they draw an integer $1 < n < 4,294,967,295$ and the winner is whoever reaches $p \geq n$ first.

Input

Each input line contains a single integer n.

Output

For each line of input, output one line – either

```
Stan wins.
```

or

```
Ollie wins.
```

assuming that both of them play perfectly.

Sample Input

```
162
17
34012226
```

Sample Output

```
Stan wins.
Ollie wins.
Stan wins.
```

