

Waterloo 2001 Fall 1 E - A Multiplication Game

Time limit: 1.0s **Memory limit:** 64M

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 who first reaches $p \geq n$. Each line of input contains one integer number n . 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.
```