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 $1 < n < 4294967295$ and the winner is who first reaches $p \geq n$.

Input and Output

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.
```