Ztalloc Procedure

The Ztalloc procedure is defined as follows:

Given a starting integer n, repeat the following operations on it:

```
if n is even, n = n / 2
if n is odd,  n = 3n + 1
```

This procedure will repeat ad infinitum.

Eileen Head thinks that this procedure will eventually reduce n to the number 1.

Your task is to either count how many iterations it takes a given number to reach 1, or verify that it is impossible.

Input Format

The input consists of a single line of input containing a single integer, **n**, the starting value for the Ztalloc procedure.

Constraints

$$(1 \leq n \leq 10^8)$$

Output Format

Output a single line consisting of either the number of iterations it takes for **n** to reach 1, or output the string "EILEEN YOU'RE WRONG".

Sample Input 0

```
12
```

Sample Output 0

```
9
```

Explanation 0

$$n = 12$$

$$12 \text{ is even} \Rightarrow n = \frac{12}{2} = 6$$

$$6 \text{ is even} \Rightarrow n = \frac{6}{2} = 3$$

$$3 \text{ is odd} \Rightarrow n = 3 \times 3 + 1 = 10$$

$$10 \text{ is even} \Rightarrow n = \frac{10}{2} = 5$$

$$5 \text{ is odd} \Rightarrow n = 3 \times 5 + 1 = 16$$

$$16 \text{ is even} \Rightarrow n = \frac{16}{2} = 8$$

$$8 \text{ is even} \Rightarrow n = \frac{8}{2} = 4$$

$$2 \text{ is even} \Rightarrow n = \frac{2}{2} = 2$$

$$2 \text{ is even} \Rightarrow n = \frac{2}{2} = 1$$

9 iterations total

Sample Input 1

```
1
```

Sample Output 1

```
0
```

Explanation 1

1 already equals 1, so it takes 0 iterations.