



## B. Sick seq

A sequence  $a = \{a_1, a_2, a_3 \dots\}$  is determined as follows:

- The first term  $S$  is given as input.
- Let  $f(n)$  be the following function:  $f(n) = n/2$  if  $n$  is even, and  $f(n) = 3n+1$  if  $n$  is odd.
- $a_i = s$  when  $i=1$ , and  $a_i = f(a_{i-1})$  when  $i > 1$ .

Find the minimum integer  $m$  that satisfies the following condition:

- There exists an integer  $n$  such that  $a_m = a_n (m > n)$ .

### Constraints

- $1 \leq s \leq 100$
- All values in input are integers.
- It is guaranteed that all elements in  $a$  and the minimum  $m$  that satisfies the condition are at most 1000000.

## Input

Input is given from Standard Input in the following format:

$S$

## Output

Print the minimum integer  $m$  that satisfies the condition.



Sample 1:

| Input | Output |
|-------|--------|
| 8     | 5      |

$a = \{8, 4, 2, 1, 4, 2, 1, 4, 2, 1, \dots\}$ . As  $a_5 = a_2$ , the answer is 5.

Sample 2:

| Input | Output |
|-------|--------|
| 7     | 18     |