3n + 1 sequence

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given a number n, you should print the length of the $3n + 1$ sequence starting with n.

The sequence is constructed as follows:

- If the number n is odd, the next number will be $3n + 1$.

- If the number n is even, the next number will be $n/2$.

For example, the $3n + 1$ sequence of 3 is $3, 10, 5, 16, 8, 4, 2, 1$ and its length is 8.

Note: Solve this problem using recursion.

Input

Only one line containing a number n $(1 \leq n \leq 10^5)$.

Output

Print the length of $3n + 1$ **sequence** of the given n.

Examples

standard input	standard output
1	1
2	2
3	8