The Collatz conjecture is a conjecture in mathematics named after Lothar Collatz, who first proposed it in 1937. The conjecture is also known as the 3n + 1 conjecture, the Ulam conjecture, Kakutani's problem, the Thwaites conjecture, Hasse's algorithm, or the Syracuse problem; the sequence of numbers involved is referred to as the hailstone sequence or hailstone numbers (because the values are usually subject to multiple descents and ascents like hailstones in a cloud), or as wondrous numbers.

Take any natural number n. If n is even, divide it by 2 to get n / 2. If n is odd, multiply it by 3 and add 1 to obtain 3\*n + 1. Repeat the process (which has been called "Half Or Triple Plus One", or HOTPO) indefinitely. The conjecture is that no matter what number you start with, you will always eventually reach 1. The property has also been called oneness.

You have an integer. Tell me, how many HOTPO steps you should do to reach 1.

* **[time limit] 500ms (cpp)**
* **[input] integer N**

1 <= N <= 10^6

* **[output] integer**

How many HOTPO steps you need to reach 1 from N

<https://codefights.com/challenge/dNDZCos3w8JLngCr3/main>

int HOTPO(int N) {

int c = 0;

while(N != 1) {

if(N % 2 == 0) N /=2;

else N = 3\*N + 1;

c ++;

}

return c;

}