Conjecture:

$n^2 + n + 41$ always generates a prime number.

Conjecture:

After 1, L(n) is never positive

Number (n)	Prime factor decomposition	Type	Liouville's function L(n) (cumulative, add one if even, subtract 1 if odd)
1		Even	1
2	2	Odd	0
3	3	Odd	-1
4	2x2	Even	0
5	5	Odd	-1
6	2x3	Even	0
7	7	Odd	-1
8	2x2x2	Odd	-2
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Conjecture:

Using the following rules, all positive integers reach the number 1.

Think of an positive integer. If it is equal to 1, stop. If it is even, divide it by 2.

If it is odd, multiply it by 3 and add 1.

With the new number you get, repeat the instructions above.