Title

Collatz Conjecture

Problem Description

The curious case of the Collatz Conjecture.

Take any positive integer, n. If n is even, divide it by two. If n is odd, multiply by three and add 1. Take the result and repeat. The mathematician Collatz believed that for **any** positive integer you start with you will eventually end up at 1.

For example, starting at 5, the sequence goes:

5, 16, 8, 4, 2, 1.

Have the user enter a positive integer less than ten thousand. Output the number of iterations for the sequence to reach 1.

Testing

Test Input	Expected Output
1	1
2	2
10	7
10000	30
231552332	228

Time Target

*** 2-5 minutes

** 5-10 minutes

* greater than 10 minutes

Section

Loops

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