The Collatz Conjecture

A fascinating things about mathematics (and science/engineering in general) is that some remarkably simply problems are unsolved. One of these is the "Collatz Conjecture":

Start with a positive integer. If the integer is even, divide it by two. If it is odd, multiply by three and add one. Stop when you get to the number one. For example, beginning with "7" we get the sequence

$$7 \to 22 \to 11 \to 34 \to 17 \to 52 \to 26 \to 13 \to 40 \to 20 \to 10 \to 5 \to 16 \to 8 \to 4 \to 2 \to 1$$

The Collatz Conjecture is that this process always ends at one! No matter what positive integer you start with, you eventually get to one!

Write a program to test the Collatz Conjecture for the first 1000 positive integers.