# The Collatz Conjecture

This is a mathamatical conjecture proposed in 1937

Start with a positive integer, the next term is obtained:

if the previous term was even, the next term will be half. eg if you input 10, the next in the sequence will be 5

if the previous term is odd, then next term will be 3x + 1 eg if you enter 5, the next term will be 16 ( 5 x 3 + 1)

eg if you enter 10 at the start....the sequence will be

5.0 , 16.0 , 8.0 , 4.0 , 2.0 , 1.0 ,

= 6 steps

## The conjecture states, for any number it will always reach 1 at the end.

Make a program to calculate the number of steps for a starting number.

Try it with the number 27