

Fibonacci Sequence

Austin Farrar

February 12, 2019

To determine if Cassini's identity holds when the initial terms of the sequence change, I created a code that tested Cassini's identity when the initial terms are both 1. This held as the list showed an alternating -1 and 1 . After changing the initial terms, it shows that Cassini's identity holds when the initial terms are changed, even when the initial terms are two different numbers.

The identity I used was the left hand side of Cassini's identity using my Fibonacci list for F in the sequence. The initial terms need to be separate from the initial terms of the Fibonacci sequence. If both sequences use the same initial terms, then you will not get a sequence that holds for Cassini's identity because the Fibonacci sequence is changed.