Problem I.5 - Fibonacci Sequence

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February 12, 2019

1. Cassini's Identity: $F_n^2 - F_{n-1}F_{n+1} = (-1)^{n-1}$.

2. I coded the identity inside an if statement to print out 'True' if it holds and 'False' if it does not hold. It held when the starting two terms were 0 and 1 but it did not hold when they were changed. I found that it did hold when the starting terms were 1 and 2 but I could not find another instance where it worked.

3. If the initial terms are changed, the subscripts of n-1 and n+1 probably have to change based on how far apart the initial values are. It is hard to say how exactly the initial terms effect the sequence because Cassini's identity is based off of the main Fibonacci Sequence.