Re: Defining the Fibonacci numbers with only one starting value

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> But, thinking this over, I've concluded that a modification
> of this alternate definition of the FNs actually allows
> using only _one_ starting number, as in
>
> F(3) = 2;
> N > 0 => F(2*N−1) = F(N)^2 + F(N−1)^2 and
> F(2*N) = F(N+1)^2 − F(N−1)^2.
>
> For N = 2, this yields F(3) = 2 = F(2)^2 + F(1)^2,
> which can be true only if F(2) = F(1) = 1.

Well, you'll need the assumption that F(n)'s are non−negative integers.

> And then for N = 1, it yields F(2) = F(2)^2 − F(0)^2,
> which, for F(2) = 1, can be true only F(0) = 0
> (or, F(1) = F(1)^2 + F(0)^2, again true for
> F(1) = 1 only if F(0) = 0).

Actually few people define F_n to be started from 0. Most of the definition
starts from 1.

> Interesting, defining a series in which each member except
> one depends on two others, starting with just one member.

With an extra assumption.

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- ***Follow−Ups***:
  - ***Re: Defining the Fibonacci numbers with only one starting value***
    - *From:* Proginoskes

- ***References***:
  - ***Defining the Fibonacci numbers with only one starting value***

Re: Defining the Fibonacci numbers with only one starting value

◊ *From:* Anthony Buckland

- Prev by Date: ***Re: improper integrals***
- Next by Date: ***Re: More of an Algorithems question***
- Previous by thread: ***Defining the Fibonacci numbers with only one starting value***
- Next by thread: ***Re: Defining the Fibonacci numbers with only one starting value***
- Index(es):
  - ♦ ***Date***
  - ♦ ***Thread***