

16-1750 Shameless Mathematica on Monday Jan 18, Week 2-1: too many ways to compute the Fibonacci numbers

January 13, 2016 4:52 PM

Brainwashing: You MUST work on your own! Way better if you submit assignments!

You MUST send me an email saying "I am attending MAT 1750".

Switch to Mondays 2-4 and Wednesdays 1-2 at 6183?

Start with 16-475/Quiz 1.

The failure to compute F_{40} was an insult. Hence...

- * Program already written.
- * While / Do / For loops w/ "prev" & "curr."
- * While loop w/ a $\{f_0, f_1, f_2, f_3, \dots\}$
- * Replace Repeated on $\begin{Bmatrix} F(n-1) \\ F(n) \end{Bmatrix}$
- * Same but w/ NestWhile.
- * Sum of binomial coefficients.
- * Solve for the explicit formula, then use it.
- * Series $\frac{1}{1-x-x^2}$
- * Matrix power
- * $F(2n) = F(n)^2 + F(n-1)^2$ $F(2n+1) = F(n)(F(n+1) + F(n-1))$
- * Categorical version!