

Homework 6 Help

VARIOUS HINTS (UPDATED MAY 12, 2007 @ 1:00PM)

■ Section 4.3 Exercise #18

John mentioned you need linear algebra for this problem. Indeed, you need to know how to multiply matrices. There are several resources on the web:

- <http://mathworld.wolfram.com/MatrixMultiplication.html>
- http://en.wikipedia.org/wiki/Matrix_multiplication

Basically, if you want to multiply 2×2 matrices together you get:

$$\begin{bmatrix} a & b \\ c & d \end{bmatrix} * \begin{bmatrix} e & f \\ g & h \end{bmatrix} = \begin{bmatrix} ae + bg & af + bh \\ ce + dg & cf + dh \end{bmatrix}$$

Still stuck? Try rewriting A^{n+1} as $A^1 * A^n$.