The more complicated the math, the dumber you sound explaining it.

Gilbert: Theorem? Yeah, that's how if you draw a loop around something, you can tell how much swirl is in it.

http://www.smbc-comics.com/?id=3278
Announcements

• Remember, this week's homework is due by **Wednesday**, 11/26 @ 5pm
• No sections this week
iClicker question #1

If a diagonalizable matrix A has eigenvalues +/- 1 only, then what are the possible eigenvalues of the matrix $A^2$?

A: +/- 1  
B: 1 only  
C: -1 only  
D: 1, -1, or 0  
E: 0 only

Answer: B - If A is diagonalizable then you can write it as $PDP^{-1}$. Thus $A^2 = (PDP^{-1})(PDP^{-1}) = PD^2P^{-1}$. Since the eigenvalues of a matrix go in the diagonal entries of the matrix between $P$ and $P^{-1}$, then the eigenvalues of $A^2$ are the entries in $D^2$, +1 only.