

The Math News

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Matrix Theory is the subject of SM261, required of mathematics and quantitative economics majors. SM461, **Linear Algebra**, goes deeper into the subject. SM365, **Scientific Computing** offers an introduction to the problems involved in processing very large arrays of numbers. Mathematics Department members have also offered occasional courses in **Applied Algebra**, discussing the mathematics involved in coding signals for transmission with as few errors as possible.

MATH MOVIE POPULAR ATTRACTION!

LCDR Marc Lucas (USNA Math Major, Class of 1991) reports that approximately 25 Midshipmen joined him for a screening of the techno-thriller "Pi" on January 28.

This issue's quotation: "Ordinary language is totally unsuited for expressing what physics really asserts, since the words of everyday life are not sufficiently abstract. Only mathematics and mathematical logic can say as little as the physicist means to say." Bertrand Russell, *The Scientific Outlook*, 1931.

Visit the Mathematics Department web site at <http://www.usna.edu/MathDept/website/index.htm>

MATHEMATICS JEOPARDY RETURNS!

Tuesday, February 11, 7-8 pm in CH117.

Compete for the **Class of 2006** team! **Fantastic Prizes!** Contact your math prof or send e-mail to Prof. D'Archangelo (jmd@usna.edu) if you're interested in competing. (Please note that "fantastic prizes" literally means "the prizes are a fantasy.")

Famous Math Majors: **David Robinson**, slightly more famous for his basketball talents, graduated from USNA with a major in mathematics. Evidently math majors can earn very high salaries!

This week's problem: If you can only buy chicken nuggets in packages of 6 or 9 or 20, what numbers of chicken nuggets (less than 1000, say) is it impossible to buy?

Problem Solution: (A juggler has three coins, one ordinary quarter, one two-headed quarter and one two-tailed quarter. He selects one coin at random, flips it, and shows you that the top side has a head on it. What's the probability that the bottom side also has a head?) The head you see is one of three heads on the three coins. Each is equally likely to appear, and two of them have a head on the other side. So the answer is $2/3$.

Calculus trick: Replacing $\int (3x^2, x)$ with $\int (3x^2, x, c)$ adds a "+c" to your antiderivative.