



Math Mole

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Rainy Monday

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This issue

- Mathematician of the Day
- Quote of the Day
- Puzzle
- Today's Editor: Thomas
- Tomorrow's Editor: Yizhen

Quote: *Truth is ever to be found in the simplicity, and not in the multiplicity and confusion of things.*

—Isaac Newton

Puzzle: Suppose you're on a game show, and you're given the choice of three doors. Behind one door is a car, behind the others, goats. You pick a door, say number 1, and the host, who knows what's behind the doors, opens another door, say number 3, which has a goat. He says to you, "Do you want to pick door number 2?" Is it to your advantage to switch your choice of doors? Why?

Mathematician of the Day



Sir Isaac Newton - 1643-1727 (England)

- Isaac Newton was the greatest English mathematician of his generation. He laid the foundation for differential and integral calculus. His work on optics and gravitation make him one of the greatest scientists the world has known.
- Newton's greatest achievement was his work in physics and celestial mechanics, which culminated in the theory of universal gravitation.
- By 1666 Newton had early versions of his three laws of motion. He had also discovered the law giving the centrifugal force on a body moving uniformly in a circular path. However he did not have a correct understanding of the mechanics of circular motion.
- In 1703 he was elected president of the Royal Society and was re-elected each year until his death. He was knighted in 1705 by Queen Anne, the first scientist to be so honored for his work.

Info From: <http://www-groups.dcs.st-and.ac.uk/history/Biographies/Newton.html>

Today:

We should cover Section 2.3 focusing on the properties of the determinant function. We will also discuss Markov Chains in preparation for today's lab.

Tomorrow:

An exam covering everything through 2.2. It should be roughly 70% computational and 30% theoretical. There will be a reduced row-echelon calculation to do, so be ready. Otherwise study the homework (both practice & turn-in), the quizzes, class notes and the book. There will be no MATLAB on the exam. Over this week we'll be covering chapters 3, 4 and 5 simultaneously as we try to understand vectors and vector spaces. To start, read as much of Chapter 3 as you can.