Mathematics Department
Reading List for 2011-2012 School Year

The Number Devil a Mathematical Adventure, **Hans M. Enzensberger**

This book is divided into twelve nights. In each night, the number devil appears in Robert's dream. The devil talks about mathematics using some interesting expressions. For example; hopping for squaring, rutabaga for square roots, prima-donna for prime numbers.

The Math Instinct

Why You're a Mathematical Genius, Keith Devlin
What is your definition of mathematics? After your read The Math Instinct, the author believes that you will see and do mathematics in a different way. Keith Devlin, asserts that humans are born with a unique ability for "symbolic mathematics" and he suggests a number of methods that one can use to improve his/her mathematical skills.

The Wild Numbers, by **Philibert Schogt**.

A short Summary of Book: "While fictional, the novel represents a very good description of what it is like to work in pure math. The main character is Isaac Swift, a mathematician at a fictional University. Isaac is a very ordinary but competent mathematician. He is constantly reminded that in the mathematical field, he is considered insignificant. The important people in the profession, who advance human knowledge, are the mathematical geniuses, which he is not.

One day Isaac believes he has found a solution to a mathematical problem (known as "Beauregard's Wild Number Problem") which has stumped mathematicians for centuries. Dmitri, Isaac's mentor at the University and a near-great mathematician, also thinks Isaac is correct. If true, Isaac believes he will reach his dream of becoming one of the mathematical immortals. But accusations of plagiarism arise, and violence that may not stop at the intellectual level loom at the university."

A History of Pi, *by Petr Beckmann*

"The history of Pi is a quaint little mirror of the history of man. It is the story of men like Archimedes of Syracuse, whose method of calculating Pi defied substantial improvement for some 1900 years; and it also took the story of a Cleveland businessman, who published a book in 1931 announcing the grand discovery that Pi was exactly equal to 256/81, a value that the Egyptians had used some 4,000 years ago. It is the story of human achievement at the university of Alexandria in the 3rd century B.C.; and it is also the story of the human folly which made mediaeval bishops and crusaders set the torch to scientific libraries because they condemned their contents as works of the devil."

Publisher: St. Martin's Press

Paperback
ISBN: 1412002311
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Prisoner's Dilemma, by William Poundstone.

This very readable book is partly a biography of John von Neumann, partly a non-technical history of the branch of mathematics known as game theory, and partly a description of some of the paradoxical findings that arise from that theory. Von Neumann was a brilliant mathematician who was the major figure in the Manhattan Project and later an active public figure. Thus, those portions of the book that deal with his life are interesting and informative. Those sections that deal with game theory use no mathematics beyond simple arithmetic and are thus fascinating, thought provoking, and easily accessible to the layperson.

THE DRAGONS OF EDEN – Speculations on the evolution of human intelligence, by Carl Sagan.
Take a tour from the time the dragons ruled, when the foundations of our intelligence an passions were laid, to modern times and discover in a non scientific reading that human intelligence has no boundaries.