

# Introduction

CS 130

Alex Vondrak

[ajvondrak@csupomona.edu](mailto:ajvondrak@csupomona.edu)

Winter 2012

# Math so far...

- Pre-algebra
- Algebra
- Geometry
- Trigonometry
- Pre-calculus
- Calculus

## What is math?

Math is the study of \_\_\_\_\_.

## “Knowledge, study, learning”

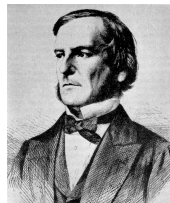
*To those who do not know Mathematics it is difficult to get across a real feeling as to the beauty, the deepest beauty, of nature. If you want to learn about nature, to appreciate nature, it is necessary to understand the language that she speaks in.*

—Richard Feynman

## George Boole (1815–1864)

*The design of the following treatise is to investigate the fundamental laws of those operations of the mind by which reasoning is performed; to give expression to them in the symbolical language of a Calculus, and upon this foundation to establish the science of Logic and construct its method*

—The Laws of Thought (1854)



## Claude Shannon (1916–2001)



- Dual-major in electrical engineering and math
- *A Symbolic Analysis of Relay and Switching Circuits* (1937)
- Realized George Boole's algebra in electromechanical relays used in telephone routing switches
- Possible to arrange relays to solve Boolean algebra problems

# What is CS 130?

A support group for the mathematically abused.

