

# Physics 211

## Elementary Physics

### Fall 2012

*Instructor: Dr. Geoffrey Lovelace*  
*Sections 1 & 70*

## Lecture 4 — 9/6/12

### I. Constant acceleration motion & freefall

A. Freefall demo: feather & penny drop (<http://physics.fullerton.edu/department/lecture-demos/96>)

B. Kinematic equations for constant acceleration

C. Worked example: Mario Kart

### II. Math review: trig

A. sin, cos, tan, and “SOH-CAH-TOA”

B. Pythagorean theorem

### III. Assignments

A. Reminder: Homework #1 due Thursday, September 6 at 11:59PM

B. Homework #2: assigned today, due in 1 week, September 13 at 11:59PM

C. Next week: more kinematics, start 2D motion (chapter 3)

D. Class participation: a trig identity