June 9, Week 2

Today: Chapter 2, Acceleration

Homework #2 now available on webpage

Example

$$x_f = x_i + (v_x)_i \Delta t + \frac{1}{2} a_x (\Delta t)^2$$

$$(v_x)_f = (v_x)_i + a_x \Delta t$$

$$(v_x)_f^2 = (v_x)_i^2 + 2 a_x \Delta x$$

Example: A car is traveling on a straight road with a speed of $30.0\, m/s$ when the driver hits the brakes causing a constant deceleration of $2.5\, m/s^2$. How long does it take and how far does the car go while stopping?