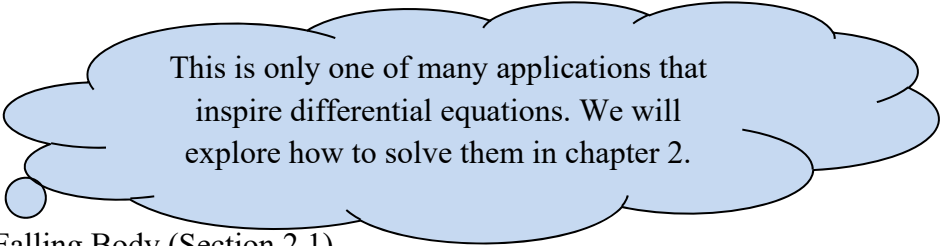Differential Equations
Class Notes
Introduction: Motion of a Falling Body (Section 2.1)

This is only one of many applications that inspire differential equations. We will explore how to solve them in chapter 2.

The book discusses the example of a falling body under the influence of gravity and air resistance and how it inspires a diff. eq.. We solve it as we would in section 2.2 by "separating the variables".

When talking about falling objects and their velocities, it is convenient to **think of downward velocity as positive (in the same direction as the motion)**. That is probably *not* what you are used to but it is the convention the book adheres to.

Chapter 2 shows us how to solve many different types of diff. eq.. Chapter 3 will introduce us to many physical phenomena to explore.

Handout: This are available through www.stlmath.com and will be given out in class. You can find others online.

Trigonometry Identities and All-in-One Cheat Sheet (author, Paul Dawkins)
http://tutorial.math.lamar.edu/pdf/Trig_Cheat_Sheet.pdf
(We only really need pages 1 and 2.)

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