

**Lesson 8 - The Fundamental Theorem of Calculus II**

**Objectives**

- Evaluate integrals using the Fundamental Theorem of Calculus.
- Given an initial condition, and any rate of change function find the particular function that satisfies the initial condition.
- Given initial conditions and an equation for acceleration find velocity and position equations.

**READ**

- Review lesson 7 reading material.
- Stewart, Chapter 4.9, p. 342-344
- Stewart, Chapter 5.3, p. 384-387

**THINK ABOUT**

- How would you define a constant of integration?
- If you had to explain what the constant  $c$  is when you integrate it how would you go about doing it?

**MATHEMATICA COMMANDS AND TASKS YOU NEED TO KNOW**

No new commands.