Chapter 1.1: Intro to Differential Equations
Linear Algebra with applications to differential equations
College of the Atlantic. Winter 2019

1. Introduce yourself to others in your group.

2. What is derivative? Answer in words, pictures, symbols, whatever.

3. Find the derivative of the following functions:

$$f(x) = x^3 \tag{1}$$

$$f(x) = (x-7)^3 \tag{2}$$

$$f(x) = (7-x)^3 \tag{3}$$

$$f(x) = \frac{1}{x} \tag{4}$$

$$f(x) = \frac{1}{7-x} \tag{5}$$

. . . .

4. Is $y(x) = e^{3x} + 4$ a solution to the differential equation $y' = 3y$?

5. Find the solution to the initial value problem: $y'(x) = 4y, y(0) = 100$.