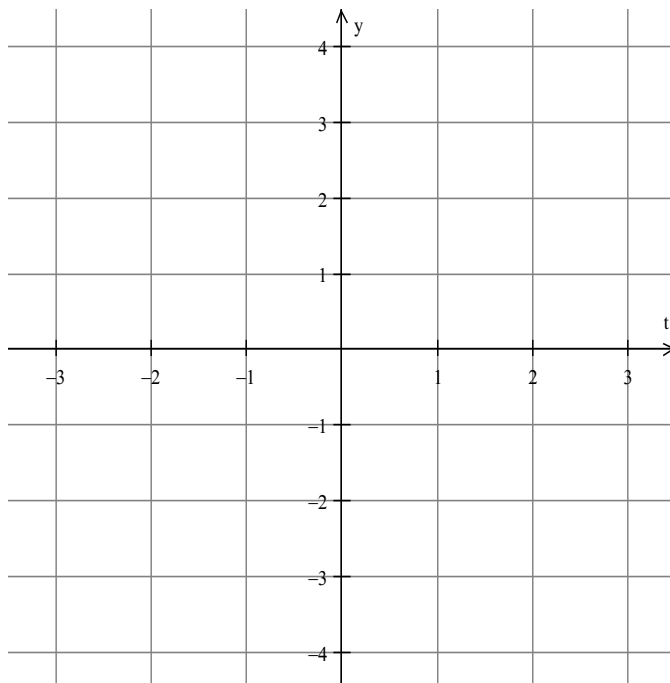**Math 265B: Direction (Slope) Fields and Solution Curves** (Section 8.2)

Given the differential equation (D.E.) $y'(t) = .5t$

(a) Sketch the slope field for the D.E. "by hand"
Verify your graph using a slope field generator
(see Math Scoop link on website)

(b) Sketch the solution curves for the following initial
conditions (I.C.'s), $y(t_0) = y_0, \quad t \geq t_0$

A. $y(0) = 1$ **B**. $y(1) = 0$ **C**. $y(-2) = 2$

(c) Find the General Solution to the D.E.

(d) Find the solution to the Initial Value Problems (for each of the given I.C.'s)

     A.

     B.

     C.