



Figure 1: Solution curves to $y'' - 2y' - 3y = 0$. Red solves $y(0) = 1, y'(0) = -1$, Blue solves $y(0) = 2, y'(0) = 3$, Yellow solves $y(0) = 0, y'(0) = 0$, and Green solves $y(0) = 0, y'(0) = -3$. With second order equations, solution curves may indeed cross (multiple times) in the direction field.