

# Math 135, HW 1

Due Wednesday, January 14th

1. Find the general solutions of the following equations:

(a)  $y'' - y' = 0$

(b)  $y'' + y = 0$

(c)  $y'' + 4y' + 4y = 0$

(d)  $y'' + y = e^x$

2. Find the solution of the following initial value problem:

$$y'' + 4y' + 4y = 0, y(0) = y'(0) = 1$$

3. Section 17, Problem 4

4. Section 17, Problem 8

5. Section 18, Problem 3