

Homework #7: due in class Friday, Oct. 30

**From the text:**

Chapter 5.1 / 10, 24, 27, 32\*, 34, 35, 51

Chapter 5.2 / 7, 13, 16

\*you may assume the function  $A(x) \equiv 1$  so that the underlying equation is  $y''(x) + B(x)y'(x) + C(x)y(x) = 0$  for  $x \in I$ , where  $I$  is an open interval.

**7.1.** Find the general solutions to each of the following ODEs:

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

(b)  $y''(x) + 2y'(x) + 5y(x) = 0$

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