1. Solve the Bernoulli equations
   (a) $y' + y = 2ty^2$
   (b) $t^2y' - y^3 = ty$

2. Solve the homogeneous equations
   (a) $y' = \frac{2y - x}{y + 4x}$
   (b) $y' = \frac{2xy}{x^2 - y^2}$
   (c) $y' = \frac{y^2 + x\sqrt{x^2 - y^2}}{xy}$

3. Boyce and DiPrima, Section 2.5, #9, #10, #12, #13.

4. Boyce and DiPrima, Section 2.5, #15, #21 (You do not have to do #20(d).)

5. Boyce and DiPrima, Section 2.5, #25.