

**Chapter 1: Introduction to Differential Equations**

- 1.1: p. 10 #1-39 odd, 45, 47
- 1.2: p. 16 #1-27 odd, 31, 33, 39
- 1.3: p. 28 #1-27 odd, 35

**Chapter 2: First-Order Differential Equations**

- 2.1: p. 46 #1-13 odd
- 2.2: p. 54 #1-31 odd, 39, 45
- 2.3: p. 65 #1-31 odd, 39, 47
- 2.4: p. 73 #1-27 odd, 41
- 2.5: p. 78 #1-21 odd, 37

**Chapter 3: Modeling with First-Order Differential Equations**

- 3.1: p. 98 #1, 5, 9, 11, 13, 15, 17, 21, 23, 33
- 3.2: p. 108 #11, 15

**Chapter 4: Higher-Order Differential Equations**

- 4.1: p. 137 #1-35 odd
- 4.2: p. 141 #1-15 odd
- 4.3: p. 147 #1-41 odd, 49, 51
  - Hint: In problem 27 you should factor by grouping.
  - Note: In problem 39 the boundary condition on the right should be  $y'(\pi/2) = 2$ .
- 4.4: p. 158 #1-33 odd, 41
- 4.6: p. 172 #1-9 odd, 15, 23, 27
  - Note: You should solve #3, 5, and 7 by two different methods.
- 4.7: p. 178 #1-27 odd
- 4.9: p. 188 #1-7 odd, 11-15 odd

**Chapter 5: Modeling with Higher-Order Differential Equations**

- 5.1: p. 207 #1, 3, 5, 9, 11, 17-20, 21-33 odd, 39, 41, 43
- 5.3: p. 226 #15, 17 (Hint: In #17 the equation is a Bernoulli equation.)

**Chapter 7: The Laplace Transform**

- 7.1: p. 283 #1-41 odd, 42
- 7.2: p. 292 #1-41 odd
- 7.3: p. 301 #1-29 odd, 33, 37-47 odd, 55-73 odd
- 7.4: p. 312 #1-33 odd, 37, 41, 45-57 odd