

**Text:** Edwards, Penney, and Calvis, *Differential Equations and Boundary Value Problems*, 6th ed. (Pearson)

**Handwritten Problems** - The **boxed boldface** problems ONLY

**MyLab Math Online Problems** - Accessed through Brightspace at <https://purdue.brightspace.com>

HW01	Sec 1.1 (Differential Equations and Math Models) 15, 19, 21, 23, 25, 31, 35
HW02	Sec 1.2 (Integrals as General and Particular Solutions) 1, 5, 7, 11, 13, 21, <b>35, 37</b>
HW03	Sec 1.3 (Slope Fields and Solution Curves) 3, 5, 22, 25, <b>27, 30</b>
HW04	Sec 1.4 (Separable Eqns and Appls) 1, 4, 6, 19, 22, 33, 35, <b>29, 49</b>
HW05	Sec 1.5 (Linear First Order Eqns) 2, 5, 6, 9, 13, 18, 24, <b>27</b>
HW06	Sec 1.5 (Linear First Order Eqns) 33, 36, <b>37</b>
HW07	Sec 1.6 (Substitution Methods and Exact Eqns) 1, 5, 9, 15, 17, 19, 27
HW08	Sec 1.6 (Substitution Methods and Exact Eqns) 31, 35, 37, 39, 45, 46, <b>56, 59</b>
HW09	Sec 2.1 (Population Models) 1, 5, 17, 21, <b>30, 31</b>
HW10	Sec 2.2 (Equilibrium Solns and Stability) 1, 7, 15, <b>17, 19</b>
HW11	Sec 2.3 (Acceleration-Velocity Models) 1, 3
HW12	Sec 2.4 (Numerical Approx: Euler's Method) 1, 5, 27 Sec 2.5 (Closer Look at Euler's Method) 27, <b>28</b>
HW13	Sec 3.1 (Intro: Second Order Eqns) 1, 3, 9, 11, 33, 35, 39, 44, 45, 47, <b>51, 52, 54</b>
HW14	Sec 3.2 (General Solns of Linear Eqns) 1, 4, 5, 7, 13, 17, 38, <b>19, 41</b>
HW15	Sec 3.3 (Homog. Eqns Constant Coefficients) 1, 3, 5, 7, 11, 13, 25, 28, 39
HW16	Sec 3.3 (Homog. Eqns Constant Coefficients) 7, 17, 18, 23, 33, 35, 54, <b>58</b>
HW17	Sec 3.4 (Mechanical Vibrations) 3, 4, 13, 15, 17, 19, <b>35</b>
HW18	Sec 3.5 (Nonhomog. Eqns, Undetermined Coeff) 1, 2, 3, 4, 8, 10, 13, 15, 19, <b>21, 22, 24, 29</b>
HW19	Sec 3.5 (Nonhomog. Eqns, Variation of Param) 49, 50, 51, 53, <b>54, 61</b>
HW20	Sec 3.6 (Forced Oscillations and Resonance) 1, 7, <b>11, 12</b>
HW21	Sec 3.6 (Forced Oscillations and Resonance) 17
HW22	Sec 4.1 (First Order Systems and Appls) 1, 3, 5, 7, 9, 13, 14
HW23	Sec 4.1 (First Order Systems and Appls) 28, <b>27, 30</b> Sec 4.2 (Method of Elimination) 3, 9, 11, 13
HW24	Sec 5.1 (Matrices and Linear Systems) 1, 3, 4, 9, 11, 13, 15, <b>23, 32</b>
HW25	Sec 5.2 (Eigenvalues for Homog. Systems) 1, 3, 5, 7, <b>29</b>
HW26	Sec 5.2 (Eigenvalues for Homog. Systems) 17, 20, <b>8, 11, 24</b>
HW27	Sec 5.5 (Multiple Eigenvalues) 1, 5, 7, <b>2, 3, 4</b>
HW28	Sec 5.3 (Gallery of Solns for Linear Systems) 1, 5, 6, 9, 11, <b>19, 20, 27</b>
HW29	Sec 5.6 (Matrix Exponentials and Linear Systems) 10, 13, 15, 21, 25, <b>22, 26</b>
HW30	Sec 5.7 (Nonhomog. Linear Systems) 1, 13, 21, <b>25</b>
HW31	Sec 7.1 (Laplace Transform and Its Inverse) 3, 4, 7, 13, 16, 17, 23, 27, <b>19, 29</b>
HW32	Sec 7.2 (Transformation and Initial Value Problems) 3, 5, 7, 8, 13, <b>19, 20, 23</b>
HW33	Sec 7.3 (Translation and Partial Fractions) 1, 3, 5, 9, 13, 15, 19, <b>31</b>
HW34	Sec 7.4 (Derivatives, Integrals and Products of Transforms) 3, 5, 7, 15, <b>8, 17, 19, 37</b>
HW35	Sec 7.5 (Periodic and Piecewise Continuous Input Functions) 1, 3, 5, 7, 11, 13, <b>17, 21</b>
HW36	Sec 7.6 (Impulses and Delta Functions) 3, 5, <b>7, 11</b>