

Semester II: 2006-2007 (062)
 (Dr. Mohammad Samman)

Homework assignments

Week	Sec.	Topics	Homework	(CAS)
1	1.1	Definition and Terminology	4, 7, 8, 9, 10, 13, 16, 20, 27, 28, 30	(55)
	1.2	Initial-Value Problems	2, 12, 20, 22, 27	--
2	2.1	Solution Curves (<i>light coverage</i>)	1, 21, 24	(5,7)
	2.2	Separable Variables	8, 14, 20, 22, 23, 27, 45	(ex 4)
3	2.3	Linear Equations	5, 13, 16, 18, 30, 37	(5,9)
	2.4	Exact Equations	2, 5, 8, 15, 25, 27, 29, 31, 42(a), 43, 4	--
4	2.5	Solutions by Substitutions	4, 6, 10, 13, 18, 21, 26, 30	--
	1.3	Mathematical Models (<i>reading</i>): Growth and Decay, Newton's Law of Cooling and Mixtures	<i>See Sec. # 3.1</i>	
	3.1	Linear Models	3, 6, 13, 14, 15, 19, 20, 21, 23	--
5	4.1	Linear Equations: Basic Theory		
	4.1.1	Initial-Value and Boundary-Value Problems	3, 10, 12, 13	--
	4.1.2	Homogeneous Equations	15, 21, 23, 28	--
6	4.1.3	Nonhomogeneous Equations	33, 36, 37(b,e)	--
	4.2	Reduction of Order	1, 3, 12, 14, 19	--
7	4.3	Homogeneous Linear Equations with Constant Coefficients	4, 9, 12, 15, 20, 34, 40, 49, 50, 51	(57)
	4.5	Undetermined Coefficients – Annihilator Approach	8, 13, 22, 24, 34, 41, 48, 64, 67, 73	--
8	4.6	Variation of Parameters	6, 11, 13, 24, 25, 28	--
	4.7	Cauchy-Euler Equation (<i>Both Methods</i>)	3, 5, 10, 11, 14, 16, 19, 31, 34, 37, 39	(44)
9	6.1	Solutions About Ordinary Points		
	6.1.1	Review of Power Series	1, 10, 11	--
	6.1.2	Power Series Solutions	15, 17, 20, 22, 32	--
10	6.2	Solutions about Singular Points	3, 10, 13, 14, 19, 20, 27	(ex 5)
11	<i>App II</i>	Matrices and Linear Systems (<i>review</i>)	14, 15, 19, 23, 27, 29, 31, 33,	--
		The Eigenvalue Problem	39, 43	--
			47, 49, 52, 53, 55	
12	8.1	Preliminary Theory	4, 5, 8, 14, 15, 17, 23, 25	--
	8.2	Homogeneous Linear Systems		
13	8.2.1	Distinct Real Eigenvalues	3, 7, 10, 13	(ex 2)
	8.2.2	Repeated Eigenvalues	19, 21, 23, 25, 27	--
	8.2.3	Complex Eigenvalues	33, 34, 36, 39, 41, 45	--
14	8.3	Nonhomogeneous Linear Systems		
	8.3.2	Variation of Parameters	11, 12, 23, 32	(35 (a,b))
	8.4	Matrix Exponential	1, 5, 9, 2, 6, 4, 8	(27(a))