

MA265 Book section	Summer Lesson #	MA265 Content of the lesson	MA265 Online homework Problems from textbook	MA265 Hand graded homework
Section 1.1	1	Systems of linear equations	2,3,7,11,15, 18, 19, 23,24	25, 26
Section 1.2	2	Row reductions and echelon forms	2,3,7,11,1,4,15, 18, 19,21	12, 25, 31
Section 1.3	3	Vector equations	5,7,9,11,13,17,19, 22	23, 25
Section 1.4		The matrix equation $Ax=b$	4,9,11,13,15,19,22,23	6, 26
Section 1.5	4	Solution sets of linear systems	1,5,10,15,22,23,26,30	6, 36
Section 1.7		Linear independence	1,5,9,11, 16,17, 21,23,27,30	26, 28,32
Section 1.8	5	Introduction to linear transformations	2,5,6,7,8,9,11,17,19, 33	20, 22(exclude e).
Section 1.9	6	The matrix of a linear transformation	1,3,7,8,13,15,17,24	28, 30
Section 2.1	7	Matrix operations	1,3,5,7,9,11,12,17	18, 28
Section 2.2		The inverse of a matrix	1,7,9,17,21,24,31	19,
Section 2.3	8	Characterizations of invertible matrices	3,5,7,11	13,
Section 2.8	9	Subspaces of R^n	1,5,8,9,12,14,17,23,31,33	2, 18
Section 2.9	10	Dimension and rank	5,9,12,13,15,18,19,20	20, 22
Section 3.1		Introduction to determinants	1,7,9,16,17,19,20,23	38,42
Section 3.2	11	Properties of determinants	1,4,5,7,15,18,19,22,23,26	16,27,29
Section 3.3	12	Cramer's rule	1,5,7,11,12,22,23,27,29	17,30
Section 4.1	13	Vector spaces and subspaces	2,5,8,11,12,14,21,22	24, 32
Section 4.2	14	Null space, column spaces and linear transf.	1,3,6,7,8,9,15,17,26	32, 36
Section 4.3	15	Linear independent sets; bases	3,5,8,9,11,13,16,22,26	28, 34
Section 4.5	16	The dimension of a vector space	3,4,6,7,8,9,10,12,13,14,22	20,26
Section 4.6	17	Rank	1,4,6,7,8,9,10,11,13,14,18,19,20	24, 26
Section 5.1		Eigenvectors and eigenvalues	3,4,7,9,12,13,17,18	20, 36
Section 5.2	18	The characteristic equation	1,3,5,9,13,15,18,21	20,22
Section 5.3	19	Diagonalization	1,2,3,5,7,11,12,15	
Section 5.3	20	Diagonalization	19,21,22,24,27,31	26,32
Section 5.4	21	Eigenvectors of linear transformations	1,4,7,11,13	26
Appendix B		Complex numbers	Hand written problems only	no exercises in the book
Section 5.5	22	Complex eigenvalues	1,3,6,7,10	
Section 5.7		Applications to diff. equations	1,3,5,6,7,9	11,13
Section 5.7	23	Applications to diff. equations	15,17,19,21	
Section 6.1	24	Inner product, length and orthogonality	1,3,6,9,10,13,14,15,18	24,26
Section 6.2	25	Orthogonal sets	2,6,12,13,15,17,21	24,26
Section 6.3	26	Orthogonal projections	2,4,8,12,13,15,17	20,22
Section 6.4	27	The Gram-Schmidt process (omit QR factorization)	1,5,8,10,14	12
Section 6.5	28	Least-squares problems (beginning to example 3)	1,3,5,9,13	14
Section 6.7	29	Inner product spaces	1,3,5,7,9,10	12, 17
Section 7.1	30	Diagonalization of symmetric matrices	1,4,5,10,12,15,17	22, 26
Section 7.1	31	Diagonalization of symmetric matrices	24,27,32,33,37	