

## **Homework for Math 10, *A Portrait of Linear Algebra, 3rd Edition***

**Please download the Answer Key**

### **Exam 1:**

Chapter Zero: 8, 10, 12, 13-22 ALL, 25, 26, 27, 29, 32, 33

Section 1.1: 3, 4, 7, 8, 9, 15, 16, 21-29 ALL.

Section 1.2: 8-11 ALL, 14, 16, 18-21 ALL, 26, 28, 32

Section 1.3: 4, 5, 7, 9, 10, 12, 15-18 ALL, 29, 32, 33, 36, 37, 40

Section 1.4: 3, 7, 10, 12, 17, 20, 23, 27, 31, 39, 40, 42, 43, 45, 49, 50, 51, 57, 58

Section 1.5: 6, 7, 11, 14, 18, 20, 22, 24, 25, 27, 29, 31, 33-36 ALL, 39

### **Exam 2:**

Section 1.6: 1, 2, 3, 5, 7, 9, 11, 13, 15, 16, 18, 21, 23, 25, 27, 30, 32, 36, 38, 40, 43, 50, 51, 53

Section 1.7: 1, 3, 7, 9, 13, 14, 16, 19, 22, 25-28 ALL, 30, 32, 34, 36

Section 1.8: 4, 9, 10, 13, 17, 19, 23, 25, 27, 29, use technology for 39, 43;  
46, 49, 51, 53, 57, 58, 61, 62, 65, 67

Section 1.9: 2, 5, 6, 7, 9, 11, 12, 14, 15, 17, 20, 22, 24, 30, 31, 35, 36, 37

Section 2.1: 3, 5, 7, 9, 10, 14, 16, 19, 21, 23, 24, 26, 27, 29, 30, 31, 32

Section 2.2: 3, 4, 7, 9, 12, 14, 17, 18, 20, 23, 24

Section 2.3: 2, 4, 5, 7, 8, 11-14 ALL

Section 2.4: 1, 2, 4, 6, 8, 9-14 ALL, 16, 17, 19

**Exam 3:**

Section 2.5: 2, 7, 9, 12, 14, 18, 20, 21, 22, 23, 24, 31, 32

Section 2.6: 1, 3, 6, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 24, 25

Section 2.7: 7&14, 8&15, 9&16, 11, 12&18, 19 acde, 20 abcef, 21, 22, 23, 24

Section 2.8: 1 to 9 all (these are mostly proofs)

Section 2.9 is a READING ASSIGNMENT. Be sure you are familiar with diagonal, triangular and symmetric matrices, and the transpose operation. You will need them in Section 3.1. There is no homework due for Section 2.9. There will be no questions on the 2nd exam concerning Section 2.9.

Section 3.1: 1, 3, 5, 6, 7, 8, 10, 12, 14, 15, 16, 17, 19, 21 to 27

Section 3.2: 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 20, 22, 23, 25, 30, 32, 35, 36, 37, 42, 43

Section 3.3: 1, 2, 4, 6, 7, 8, 10, 11, 12, 15, 23

Section 3.4: 2, 4, 6&19, 7&20, 8&21, 10&23, 12&25, 13, 14&26, 15, 17, 18

**Exam 4:**

Section 3.5: 3, 4, 5, 7, 10, 11, 15, 19, 22, 29

Section 3.6: 4, 5, 6, 8, 10, 11, 13, 15, 23, 27. READ 36 (don't do it).

Section 3.7: 1, 3, 6, 8, 10, 11, 14, 16, 17, 19, 21, 26, 30

Section 3.8: 2, 11, 13, 20, 22, 26, 28 (Read the instructions for 20 to 28!!! Consult the Key for 3.7)

Section 5.1: 3, 4, 5, 6, 8, 9, 11, 12, 14, 15, 18, 19, 21, 23 & 28, 25 & 30; 34

Section 5.2: 3, 5, 8, 10, 14, 16, 18, 20, 22, 24, 26, 27, 32, 34, 36

Section 5.3: 2, 4, 6, 8, 10, 11, 12, 13

**Exam 5:**

Section 6.1: 4, 7, 10, 13, 14, 16, 18, 20, 24, 25

Section 6.2: 1, 10, 12, 13, 16, 22

Section 6.3: 2, 4, 5, 7, 8, 12, 14, 15, 25, 27, 29, 33, 35, 37, 39, 47, 49, 51

Section 7.1: 3, 5, 8, 11, 13, 16, 19, 21, 25, 26, 27, Read 30 (don't do it)

Section 7.2: 2, 3, 5, 7, 8, 10, 13, 15, 18, 19, 21, 23, 25, 26 to 33 (all), 28, 29, 31

Section 7.3: 1, 3, 7, 9, 11, 16, 18, 22, 24, 26