

# Homework for Math 2270 - 002, Spring 2021

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April 14, 2021

Our text is by David C. Lay, Steven R. Lay and Judi J. McDonald, *Linear Algebra and its Applications*, 5th ed. Please read the relevant sections in the text as well as any cited reference. Assignments are due the following Friday, or on Apr. 23, whichever comes first.

Your written work reflects your professionalism. Make answers complete and self contained. This means that you should copy or paraphrase each question, write in complete sentences, provide adequate explanation to help the reader understand the structure of your argument, be thorough in the details, state any theorem that you use and proofread your answer.

It also means that you do your own work. You can talk to other students about the problems, but you should write the solutions on your own. Copying from other students or the internet is cheating and plagiarism and against your student code. If you must use a source other than your textbook, being professional means that you provide a citation.

Homework from Wednesday to Tuesday will be due Friday. Late homework that is up to one week late will receive half credit. Homework that is more than one week late will receive no credit at all. Homework should be uploaded to Canvas by 4:00 pm Friday afternoon to be considered on time.

The home page is the official listing of homework assigned for the week and takes precedence in case there is any discrepancy with the problems mentioned in class.

Please hand in problems A on Friday, January 22.

**A.** Exercises from Sec. 1.1 of the text

10[2, 8, 12, 16, 20]

Please hand in problems B on Friday, January 29.

**B.** Exercises from Sec. 1.2 – 1.3 of the text

21[4, 10, 14, 20]

32[12, 14, 18, 28]

Please hand in problems C on Friday, Feb. 5.

**C.** Exercises from Sec. 1.4 – 1.5 of the text

40[16, 18, 34]

48[11, 26]

Please hand in problems D on Friday, Feb. 12.

**D.** Exercises from Sec. 1.6 – 1.8 of the text

55[7, 14]  
61[6, 12]  
69[4, 9, 11, 19, 28]

Please hand in problems E on Friday, February 19.

**E.** Exercises from Sec. 1.9 – 2.1 of the text

79[1, 7, 17, 25]  
87[1, 7, 9]  
102[11, 22, 25]

Please hand in problems F on Friday, February 26.

**F.** Exercises from Sec. 2.2 – 2.3 of the text

111[8, 15, 21, 31, 34, 35, 39, 40]  
117[1-7, 13, 15, 24, 27, 36]

Please hand in problems G on Friday, March 5.

**G.** Exercises from Sec. 2.5, 2.6, 2.8 and 2.9 of the text

131[1, 11, 12, 17]  
138[9, 10]  
153[6, 25, 37]  
159[5, 9, 14, 22]

Please hand in problems H on Friday, Mar. 12.

**H.** Exercises from Sec. 2.8 – 3.1 of the text

169[4, 13, 15]  
177[9, 14, 23, 25, 30, 36]  
186[6, 14, 27]

Please hand in problems I on Friday, March 19.

**I.** Exercises from Sec. 4.1 of the text

197[2, 8, 20, 27, 30]

Please hand in problems J on Friday, Mar. 26.

**J.** Exercises from Sec. 4.2 – 4.5 of the text

207[7, 30, 31, 33]  
215[19, 26, 31]  
224[12, 20, 32, 33]  
231[22, 24, 25]

Please hand in problems K on Friday, Apr. 2.

**K.** Exercises from Sec. 4.6, 4.7, 5.1 and 5.2 of the text

238[19, 27, 29]  
244[1, 9, 14, 19]  
273[19, 25, 31]  
281[Find eigenvalues and eigenvectors for 8 and 11, 27]

Please hand in problems L on Friday, Apr. 9.

**L.** Exercises from Sec. 5.3 of the text

288[2, 6, 11, 18]  
328[10]

Please hand in problems M on Friday, Apr. 16.

**M.** Exercises from Sec. 5.4, 5.5, 6.1, 6.2 of the text

295[5, 8, 12, 15, 30]  
302[4, 8, 13, 24]  
338[14, 24, 29, 31]  
346[10, 13, 21, 25, 29]

Please hand in problems N on Friday, Apr. 23.

**N.** Exercises from Sec. 6.3 – 6.5 and 6.7 of the text

354[5, 10, 14, 17, 19, 23]  
360[7, 12, 14, 16]  
368[3, 5, 7, 15]  
384[4, 6, 8, 9, 14, 25]