

**Examination 3 Sample Problems from the Textbook
(Jim Hefferon, Linear Algebra, 4th edition)**

Note: Some problems have several parts. A problem similar to each part can be asked on the exam.

Note: Not all topics are equally represented in this list. For instance, your exam may contain questions on complex numbers that are not on this list. Additional sample problems will be posted separately.

Answers/solutions are available, courtesy of the author, at the following web page:

<http://joshua.smcvt.edu/linearalgebra/jhanswer.pdf>

**Group 1
Level: EASY**

2:I.1.17,18
2:I.2.22,23,26ac,29
2:II.1.21,22,36
2:III.1.20,21,22,26
2:III.2.15,16,17,18,25
2:III.3.17,18,20,21
3:II.1.18,19,24,25
3:II.2.21

Level: MEDIUM

2:I.1.19,21,22
2:I.2.20,26bde,28
2:II.1.25
2:III.1.27,31
2:III.2.19,20,21
2:III.3.23,26,29,39
3:II.1.20,22,26
3:II.2.23,24,26

Level: HARD

2:I.1.30
2:I.2.44,45
2:II.1.28,29
2:III.1.34
2:III.2.28,37ab
2:III.3.28,40,43
3:II.1.28,41
3:II.2.31,37

Group 2
Level: EASY

3:III.1.13,17,18
3:IV.3.24,25,26,33
3:V.1.8,1.9ab,10ab,12
4:I.1.1,3,4
4:I.2.8,9a,13
4:III.1.14
5:II.1.5,8a

Level: MEDIUM

3:III.1.19,21,23
3:IV.3.32,39
3:V.1.7,9cd,10c,15
4:I.1.6,9,18
4:I.2.9b,12,15
4:III.1.16,17,20,21
5:II.1.6,8bc,11,14

Level: HARD

3:III.1.27,30
3:IV.3.44,47
3:V.1.24
4:I.1.13,17
4:I.2.18,23
4:III.1.22,25,26
5:II.1.13,20,21

Group 3
Level: EASY

5:II.3.22,23,24
3:VI.1.6,7,8
3:VI.2.10,11,13
3:VI.3.11

Level: MEDIUM

5:II.3.25,26,27,28,32,36,44
3:VI.1.11,14
3:VI.2.12,14,15,19,22
3:VI.3.19,20,22

Level: HARD

5:II.3.29,30,31,35,45,46
3:VI.17,19
3:VI.2.16,17,18,22,25
3:VI.3.12,13,14,22, 26