

Notes on Exam 3, Math 544, Spring , 2016

1. Exam 3 is Thursday, April 7. It covers sections 1.9, 3.2, 3.3, 3.4, and 3.5.
2. Be able to define “null space”, “span”, “column space”, “subspace of \mathbb{R}^n ”, “dimension”, “basis”.
3. Be able to state the four theorems about dimension.
4. Let A be an $n \times n$ matrix. Be able to state 8 conditions which are equivalent to the statement A is non-singular.
5. The material on the old exams which is covered on your exam 3:
 - (z) Exam 1's:
 - 01: 8,
 - (a) Exam 2's:
 - 97: 3, 4, 5, 6, 7, 8, 9, 10.
 - 98: 3, 7, 8, 10.
 - 02: 6.
 - 03: 5, 6, 7, 8
 - 04: 9, 10.
 - Summer 05: 7.
 - Fall 05: 3, 4, 5, 6, 9, 10.
 - Summer 06: 1, 3, 4, 5, 6, 7, 8, 9.
 - Fall 06: 1, 3, 4, 5, 7, 9.
 - Summer 07: 1, 2, 3, 7, 8, 9.
 - Fall 09: 1, 2, 3, 4, 6, 7.
 - 2011: 4, 5, 6, 8.
 - Summer 2012: 7, 8.
 - Spring 2016: 1, 2, 5, 6,
 - (b) Exam 3's:
 - 97: 1, 3, 4, 5, 6, 7, 8.
 - 98: 1, 2, 3, 4, 5, 6, 7, 8, 9.
 - 01: 8, 9.
 - 02: 1, 2, 3, 7, 8, 9, 10.
 - Spring 03: 1, 2, 3, 6, 7, 8, 9.
 - Summer 03: 2, 3, 4, 5, 6, 7, 8, 9.
 - 04: 1, 2, 3, 4, 7, 8, 9.
 - Summer 05: 1, 2, 3, 4, 5, 6, 7.
 - Fall 05: 1, 4, 5, 6, 7, 8, 9, 10.
 - Fall 06: 2, 3, 4, 5, 6, 7.
 - Summer 07: 3, 4, 5, 6.
 - Spring 11: 1, 2, 3, 4, 5, 6, 7, 8.

- Summer 12: 1, 2, 3, 5.
- (c) Exam 4's:
- 98: 2, 5, 7.
 - 01: 1, 2, 3, 4, 5, 8, 9, 10.
 - 02: 2,9.
 - Spring 03: 8.
 - Summer 03: 1, 2, 5, 6.
 - Summer 05: 1, 2.
 - Fall 06: 2, 9.
- (d) Final Exams:
- 97: 1, 3, 4, 6, 7, 8, 13.
 - 98: 1, 2, 7, 14, 17.
 - 01: 1, 2, 7, 8, 9, 10abcd, 13.
 - 02: 1, 8, 11.
 - Spring 03: 12, 18.
 - Summer 03: 1, 2, 17defgh.
 - 04: 1cdefg, 6, 12, 13, 14.
 - Summer 05: 1, 2.
 - Fall 05: 1cdefg, 2, 3, 7, 14, 15, 16.
 - Summer 06: 1, 3defgh, 6, 7, 8, 12.
 - Fall 06: 2, 3, 6bcdef, 11.
 - Summer 07: 1, 4.
 - Fall 09: 3, 4, 6, 7, 10, 11, 15.
 - Spring 11: 3, 4, 5, 14.
 - Summer 12: 1, 4, 8, 9.