

Math 51, Winter 2013
Henry Adams, January 27

This is a list of 20 definitions and propositions that I recommend you understand thoroughly for midterm 1.
Disclaimer: There are many important definitions and propositions that are not on this list!

- (1) Page 8 - Definition of a linear combination
- (2) Page 9 - Definition of a span
- (3) Page 13 - Parametric representation of a plane (and line on page 10)
- (4) Page 18 - Proposition 3.1
- (5) Page 21 - Definition of dot product
- (6) Page 25 - Proposition 4.5
- (7) Page 27 - Implicit equation for a plane in \mathbb{R}^3
- (8) Page 42 - Properties of Reduced Row Echelon Form
- (9) Page 45 - How many solutions should my system have?
- (10) Page 48 - Equation (7.3) expressing Ax as a linear combination of the columns of A
- (11) Page 51 - Definition of $N(A)$
- (12) Page 52 - $N(A) = N(\text{rref}(A))$
- (13) Page 53 - Proposition 8.2
- (14) Page 58 - Definition of $C(A)$
- (15) Page 59 - Second definition of $C(A)$
- (16) Page 59 - Proposition 9.1
- (17) Page 65 - Definition of a linear subspace
- (18) Page 69 - Definition of a basis (not in a blue box)
- (19) Page 76 - Proposition 12.3
- (20) Page 77 - Proposition 12.4