Math 2130
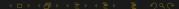## Linear Algebra
Week 1
Gauss's method

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Today's topics

Gauss's method

- Small systems of linear equations may be solved by substitution, but this is difficult (or impossible) for larger systems.
- There are, however, three basic ways we can change our view of a system of linear equations which can help us find solutions:
  1. Swap two equations.
  2. Add a nonzero multiple of one equation to another one.
  3. Multiply an equation by a nonzero scalar.

Gauss's method

- I'll illustrate applying each of these three operations to the system with equations

$$3x + y = 5 \text{ and } 5x - y = 3.$$