MATH 532, 736I: REVIEW INFORMATION FOR TEST 2

What to Memorize:

- The proof of Theorem 2 and the proof of Theorem 3:

  Theorem 2: If A, B, and C are collinear, then there are real numbers x, y, and z not all 0 such that

  $$x + y + z = 0 \quad \text{and} \quad xA + yB + zC = 0.$$

  Theorem 3: If A, B, and C are points and there are real numbers x, y, and z not all 0 such that

  $$x + y + z = 0 \quad \text{and} \quad xA + yB + zC = 0,$$

  then A, B, and C are collinear.

- The proofs of Desargues' Theorem and its various variations.

- The proof of the dual of Desargues' Theorem assuming Desargues' Theorem.

- The proof of the 9-Point Circle Theorem.

What to Also Know:

- How to work with vectors.

- How to work with translations and rotations.

- Homework and Old Tests.