## MATH 200B, DUE 01/27.

(1) Prove that $A \in M_{n}(\mathbb{C})$ is similar to its transpose $A^{t}$.
(2) Find all similarity classes of $6 \times 6$ matrices over $\mathbb{C}$ satisfying $A^{6}=0$.
(3) Section 12.2: 8, 10.
(4) Section 12.3: 2, 6, 9, 19, 21, 30, 32.

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[^0]:    Date: January 16, 2013.

