Math 430/603 Spring 2017 Homework #7

Due April 4, Tue in class

1. Textbook, Section 4.6, page 237: 9;

2. Textbook, Section 4.7, page 247: 9, 19(a);

3. Textbook, Section 4.8, page 257: 3, 9;

4. Suppose that A is similar B and B is similar to C. Show that A is similar to C.

   The following extra problem(s) are for **Math 603** *students only:*

5. Textbook, Section 4.7, page 247: 2, 19(b);

6. Let A and B be two $n \times n$ matrices which are similar, and α be a scalar. Show that $A + \alpha I$ and $B + \alpha I$ are similar, where I denotes the $n \times n$ identity matrix.