Homework 8

June 22

1. 6.1.7
2. 6.1.10
3. 6.1.16 (if $c \in \mathbb{C}$ then $\bar{c}$ is the conjugate of c; that is, if $c = a + bi$ where $a, b \in \mathbb{R}$ then $\bar{c} = a - bi$)

June 23

4. 6.1.32 (recall: idempotent means $M^2 = M$)
5. 6.1.40
6. 6.2.2
7. 6.2.12

June 24

8. 6.2.38 (recall: skew-symmetric means $A^T = -A$
9. 6.4.2
10. 6.4.5 (recall from the exam 1 technique questions: the trace is the sum of the diagonal of the matrix)

June 25

11. 6.5.2
12. 6.5.10 (optional)
13. 6.5.12 (optional)