Homework 1 (7 problems, due 12 September)

1. Problem 18 on page 34.

2. Problem 19 on page 34.

3. Let J_n be the $n \times n$ all 1s matrix. Let I_n be the $n \times n$. Compute $\det(J_n - I_n)$.

4. Suppose for an $n \times n$ matrix A, $A^T = -A$. Show that if n is odd, then $\det(A) = 0$

5. Problem 3 (under Cramer's Rule) on page 36.

6. Problem 3 (under Miscellaneous Problems) on page 36.

7. Problem 8 on page 37.