MAT 22B Summer Session 1, 2016 - Homework 5*†

1. Problem 5, 11, 12, 16, 19, 30 of Section 6.1.
2. Problem 11-14 of Section 6.2.
3. Problem 3, 4, 5, 6 of Section 7.1.
4. Problem 23, 24, 25 of Section 7.2.
5. Problem 17, 19, 22 of Section 7.3.
6. Problem 6 of Section 7.4.
7. Let
   \[ A = \begin{bmatrix} 0 & t \\ 0 & 0 \end{bmatrix}. \]
   Show that
   \[ \exp A = \begin{bmatrix} 1 & t \\ 0 & 1 \end{bmatrix}. \]
8. Problem 15, 17 of Section 7.5.
9. Problem 8, 9, 10 of Section 7.6.

*Due Date: Wed. 7/27.
†Problem 1-6 and 8-10 are based on Elementary Differential Equations and Boundary Value Problems, 9th/10th Edition, by Boyce and DiPrima.