You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

- 1. Do #10 in §3.4 (you don't need to turn in part c).
- 2. Follow the same directions for $\frac{d\mathbf{Y}}{dt} = \begin{pmatrix} -3 & 10 \\ -1 & 3 \end{pmatrix} \mathbf{Y}$, with initial condition $\mathbf{Y}_0 = (3,0)$.
- 3. Do #18 in §3.4
- 4. Do #20 in §3.4