Math 253
Midterm I Review
§7.1 – 7.3

For the first midterm you should be able to:

- Show that a function is a solution to a differential equation, including initial value problems. [7.1]
- Given a direction field, sketch the graphs of solutions that satisfy given initial conditions. (You won't need to create the direction fields.) [7.2]
- Use Euler's method to estimate approximations to initial value problems. [7.2]
- Draw a graph of the Euler approximations to a solution curve. [7.2]
- Solve separable equations, including applications of orthogonal trajectories and mixing problems. [7.3]
  - Review the two mixing problems from lecture notes, as well as the one from the homework.