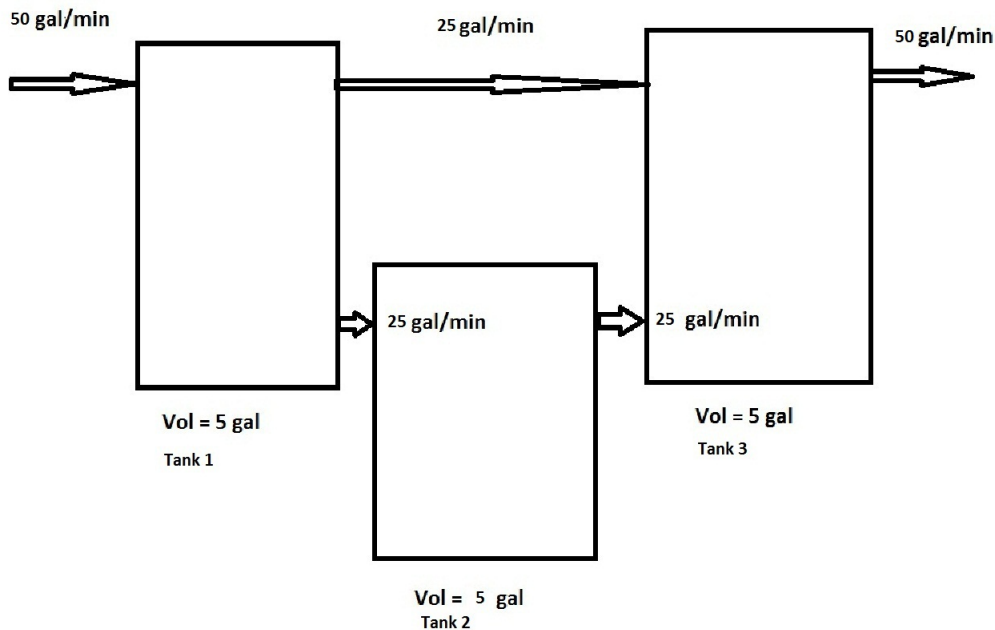


DE2 - Assignment #7

Due: Friday 10/5 5pm

1. For the following salt tank setup, you may assume the inflow brings in 0.1 lbs. of salt per gal, all tanks are initially full and the system is perfectly mixed.



- a. Setup the IVP (a 3 by 3 first order linear system and initial data) that governs the amount of salt in each tank after time t minutes if initially 10 lbs of salt are in tank 1, 2 lbs are in tank 2, and tank 3 is empty of salt.
- b. Find the maximum amount of salt in tank 2 and when it occurs.