1. To a 72.0 mL solution of 0.250 M chlorous acid (pK\textsubscript{a} = 1.94) is added 10.0 mL of 1.00 M sodium hydroxide. What is the final pH of the solution?

2. Sketch titration curves for 0.10 M solutions of each of the following diprotic acids with 1.0 M sodium hydroxide:
   a. “Kevinic acid” (pK\textsubscript{a,1} = 2.3, pK\textsubscript{a,2} = 7.6)
   b. “Riceous acid” (pK\textsubscript{a,1} = 7.2, pK\textsubscript{a,2} = 8.0)

3. If you wanted to make a buffer solution at pH 7.5 using “Riceous acid”, what volume of 1.0 M HCl would you need to add to a solution containing 0.650 mole of the fully deprotonated molecule (e.g. its sodium salt)? Include all calculations – show your work!