16 • Acids, Bases and salts
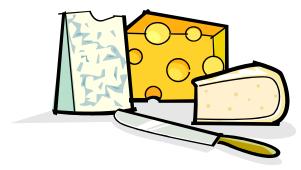
16.9 Ka-Kb Relationship Practice Problem

Sorbic Acid, $HC_6H_7O_2$, is a weak monoprotic acid with Ka = 1.7 x 10^{-5}. It's salt potassium sorbate is added to cheese to inhibit the formation of mold. What is the pH of a solution containing 4.93 g of potassium sorbate in 0.500 L of solution?

Step 1: Determine the salt and decide which ion is stronger and will hydrolyze and determine pH

Step 2: Write out the hydrolysis equation

Step 3: You want to find pH. Think of how you will do that and create a plan.

Step 4: Here's our plan for this problem

1. _____

2. _____

3. _____

4. _____

5. _____