[Chapter 16 (Aqueous Ionic Equilibrium) Questions](http://session.masteringchemistry.com/myct/assignment?assignmentID=2386281) Part II

1. Consider the following titration curve of a weak acid titrated with strong base. At which point(s) on the graph is the solution a buffer?


2- Which of the following solutions has the highest buffer capacity? Choose from:

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| 0.100 M NaCl / 0.100 M NaOH |
| pure H2O |
| 0.050 M NaCN / 0.050 M HCN |
| 0.100 M HCl / 0.100 M NaOH |
| 0.025 M NaCN / 0.025 M HCN |

3- A student adds solid silver chloride (AgCl) to each of two beakers: one containing 1.0 L of pure water, and one containing 1.0 L of 0.500 M NaCl. In which will AgCl be **more** soluble, and why? Choose from:

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| 0.500 M NaCl: the sodium ions in the solution will complex with the chloride, allowing more AgCl to dissolve. |
| 0.500 M NaCl: in the 0.500 M NaCl solution, the chloride ions that are already present will increase the amount of AgCl that dissolves by decreasing the value of  |
| Neither: AgCl is completely insoluble, and will not dissolve in either. |
| Pure H2O: in the 0.500 M NaCl solution the chloride ions that are already present will inhibit the AgCl from dissolving by increasing the value of Q. |
| Both: AgCl is freely soluble in both. |

4- Determine the pH of each solution.

0.16M KCHO 2 

0.16M KCHO 2 

0.25M KI

5- Ammonia, NH 3 , is a weak base with a K b value of 1.8×10 −5 .What is the percent ionization of ammonia at this concentration?

