Chapter 18: Buffers & Titration Curves

Theory: identification of buffers
common ion effect
indicators as weak acids $HIn \rightleftharpoons H^+ + In^-$
color #1 color #2

identification of titration curves
(what's in buret, what's in beaker)

Calculations:
buffers: pH, ratio $\left(\frac{\text{weak acid or base}}{\text{salt}}\right)$
preparation: adding strong acid to weak base
adding strong base to weak acid
pH after adding strong acid or base to buffer
calculation of any pH point in acid/base titration
titration of strong acid / strong base
titration of weak acid with strong base
weak base with strong acid
- initial pH – weak acid or base only
- before equivalence pt – buffer
- at equivalence pt – salt
- after equivalence pt – strong acid or base

Note: when adding strong acid or base to system – do limiting reagent problem first – then identify system!