## 8.2 Calculations- The Relationship between Kw, Ka and Kb

Derive auto ionization of water From Bronsted- Lowry Theory :

Kw= always must equal=

Ka and Kb relationship

A neutral solution, relationship between [H+  (aq)  ] [OH- (aq) ]

An acidic solution

A basic solution

Do and apply p. 502, # 1- 2

## pH and pOH

Define: pH (p. 502) ; pOH (p. 502)

Given pH= 6.8 ; find pOH

This supports pH + pOH = -log Kw

Use pH to determine the formula for H+ concentration:

Convert pH = -log [H+] pOH= - log [OH-]

Do and apply: p. 508, # 1-4