* + - **Strong Acid** $→$ Weaker Conjugate Base
		 *(doesn’t hydrolyze, so
		 not much effect on pH)*
		- **Weak Acid**$ →$ Stronger Conjugate Base
		 *(strong enough to hydrolyze,
		 so potential effect on pH)*
		- **Strong Base** $→$ Weaker Conjugate Acid
		 *(doesn’t hydrolyze, so
		 not much effect on pH)*
		- **Weak Base** $→$ Stronger Conjugate Acid

 *(strong enough to hydrolyze,
 so potential effect on pH)*

* + - **Ion from a Strong Acid** $→$ Neutral
		(*is a weaker conj. base*)
		- **Ion from a Weak Acid** $→$ Basic
		(*is a stronger conj. base*)
		- **Ion from a Strong Base** $→$ Neutral
		(*is a weaker conj. acid*)
		- **Ion from a Weak Base** $→$ Acidic
		(*is a stronger conj. acid*)
		- **Cation is a charged metal ion, and anion is from a strong** acid $→$ Acidic metal hydrate + Neutral anion - salt is acidic

* + - **Neutral + Acidic** = Acidic
		- **Neutral + Basic** = Basic
		- **Neutral + Neutral** = Neutral
		- **Acidic + Basic** = ?
		***Use Ka and Kb to determine*** Ka > Kb 🡪 Acidic

Ka < Kb 🡪 Basic
Ka = Kb 🡪 Neutral

* + - **Kw = Ka x Kb** Kw = 1.0 x 10-14 (*if at 25 °C, may be different if not at 25°C*)

 If you are looking for the Ka of an acidic conjugate ion, use Kw and the Kb of the base it came from

$$K\_{acidic conj. ion}= \frac{K\_{w}}{K\_{b (of the base that the ion came from)}}$$

If you are looking for the Kb of a basic conjugate ion, use Kw and the Ka of the acid it came from

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$$K\_{basic conj. ion}= \frac{K\_{w}}{K\_{a (of the acid that the ion came from)}}$$





