

Name: _____

Date: _____

Period: _____

Seat #: _____

Acid-Base Equilibria

Consider the following equilibrium: $\text{HCN} + \text{H}_2\text{O}(l) \rightleftharpoons \text{H}_3\text{O}^+ + \text{CN}^-$ K_a for HCN = 4.0×10^{-10}

Identify the two **conjugate acid-base pairs**: _____

Draw a box around the more appropriate representation of this equilibrium:



Which acid is *weaker*? _____

Conjugate Acids and Bases

What is the...

conjugate *base* of H_2O ? _____

conjugate *acid* of NH_3 ? _____

conjugate *base* of OH^- ? _____

conjugate *acid* of HCO_3^- ? _____

pH Calculations

Fill in the chart below:

$[\text{H}_3\text{O}^+]$	$[\text{OH}^-]$	pH	pOH	Acidic or Basic
2.0×10^{-3}				
		6.25		
	5.6×10^{-2}			