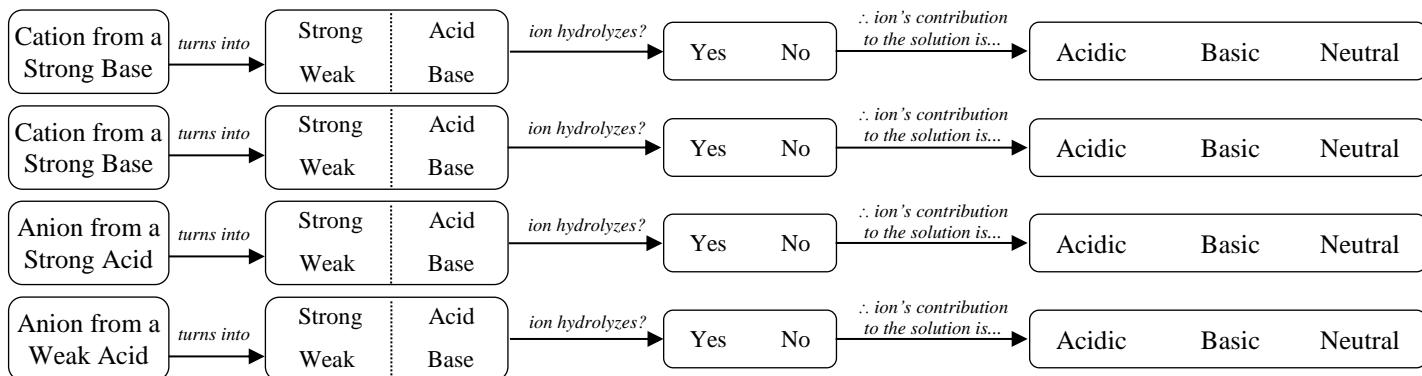


Name:

Period:

Seat#:

Fill out the graphic below by circling or highlighting the correct choice.



Classify the following salts as acidic, basic, or neutral. Remember: $K_w = K_a \times K_b$

Salt	Acidic, Basic, or Neutral	Salt	Acidic, Basic, or Neutral
1) $\text{Ba}(\text{ClO}_4)_2$		12) K_2CO_3	
2) NH_4NO_2 K_a for $\text{NH}_4^+ = 5.6 \times 10^{-10}$ K_b for $\text{NO}_2^- = 2.2 \times 10^{-11}$		13) CsOH	
3) AgOH		14) HClO_4	
4) H_2CO_3		15) $\text{NH}_4\text{C}_2\text{H}_3\text{O}_2$ K_b for $\text{CH}_3\text{NH}_2 = 4.4 \times 10^{-4}$ K_b for $\text{NO}_2^- = 2.2 \times 10^{-11}$	
5) NH_4Cl		16) NaClO	
6) $\text{Ca}(\text{NO}_3)_2$		17) KClO_4	
7) NaNO_2		18) NH_4Br	
8) $\text{Zn}(\text{NO}_3)_2$		19) NH_4F K_b for $\text{CH}_3\text{NH}_2 = 4.4 \times 10^{-4}$ K_b for $\text{NO}_2^- = 2.2 \times 10^{-11}$	
9) K_2CO_3		20) $\text{KC}_2\text{H}_3\text{O}_2$	
10) $\text{Fe}(\text{ClO}_4)_2$		21) NaF	
11) $\text{NH}_4\text{C}_6\text{H}_6\text{COO}$ K_a for $\text{NH}_4^+ = 5.6 \times 10^{-10}$ K_a for $\text{C}_6\text{H}_6\text{COOH} = 6.5 \times 10^{-5}$		22) $\text{CH}_3\text{NH}_3\text{NO}_2$ K_b for $\text{CH}_3\text{NH}_2 = 4.4 \times 10^{-4}$ K_b for $\text{NO}_2^- = 2.2 \times 10^{-11}$	

For all Acidic or Basic solutions from the problems above, write problem number, then write the balanced hydrolysis reaction that is causing the solution to be acidic or basic. The first one is done as an example. *Hint* All rows should be filled out if you got the problems above correct!

Q #	Balanced Hydrolysis Reaction
2	$NH_4^+ + H_2O \rightarrow NH_3 + H_3O^+$