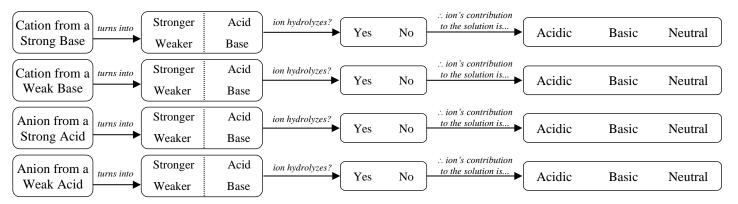
Name: Period: Seat#:

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) Ba(ClO ₄) ₂		12) Na ₂ CO ₃	
2) NH ₄ NO ₂ K_a for NH ₄ ⁺ = 5.6 x 10 ⁻¹⁰ K_b for NO ₂ ⁻ = 2.2 x 10 ⁻¹¹		13) CsOH	
3) AgOH		14) HClO ₄	
4) H ₂ CO ₃		15) $NH_4C_2H_3O_2$ K_a for $NH_4^+ = 5.6 \times 10^{-10}$ K_b for $C_2H_3O_2^- = 5.6 \times 10^{-10}$	
5) NH ₄ Cl		16) NaClO	
6) Ca(NO ₃) ₂		17) KClO ₄	
7) NaNO ₂		18) NH ₄ Br	
8) Zn(NO ₃) ₂		19) NH_4F K_a for $NH_4^+ = 5.6 \times 10^{-10}$ K_a for $HF = 6.8 \times 10^{-4}$	
9) K ₂ CO ₃		20) KC ₂ H ₃ O ₂	
10) Fe(ClO ₄) ₂		21) NaF	
11) NH ₄ C ₆ H ₆ COO K _a for NH ₄ ⁺ = 5.6 x 10 ⁻¹⁰ K _a for C ₆ H ₆ COOH = 6.5 x 10 ⁻⁵		22) CH ₃ NH ₃ NO ₂ K _b for CH ₃ NH ₂ = 4.4 x 10 ⁻⁴ K _b for NO ₂ ⁻ = 2.2 x 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 ₂ O → NH ₃ + H ₃ O+