

WORKSHEET 9

Chemistry 110

Name _____

(last)

(first)

Due date: _____

A. SOLUBLE SALTS: Write an X in the blank to the right of any of the following salts that are soluble in water.

- | | | | | | |
|------------------------|-------|------------------------|-------|-----------------------|-------|
| 1. lithium chromate | _____ | 5. ferrous phosphate | _____ | 9. cobaltous bromide | _____ |
| 2. nickel (II) acetate | _____ | 6. barium sulfate | _____ | 10. sodium iodate | _____ |
| 3. silver chloride | _____ | 7. barium chloride | _____ | 11. potassium cyanide | _____ |
| 4. zinc carbonate | _____ | 8. ammonium dichromate | _____ | 12. rubidium chromate | _____ |

B. WEAK ACIDS: Write an X in the blank to the right of any of the following that are weak acids in water.

- | | | | | | |
|--|-------|-----------------------------------|-------|----------------------|-------|
| 1. HCl | _____ | 4. HClO ₄ | _____ | 7. HIO ₂ | _____ |
| 2. HC ₆ H ₅ O ₂ | _____ | 5. HF | _____ | 8. HBrO ₃ | _____ |
| 3. H ₃ BO ₃ | _____ | 6. H ₂ SO ₃ | _____ | 9. HCN | _____ |

C. INSOLUBLE METAL HYDROXIDES: Write an X in the blank to the right of any of the following metal hydroxides that are insoluble in water.

- | | | | | | |
|------------------------|-------|------------------------|-------|------------------------|-------|
| 1. Ca(OH) ₂ | _____ | 3. Cu(OH) ₂ | _____ | 5. Zn(OH) ₂ | _____ |
| 2. LiOH | _____ | 4. Mg(OH) ₂ | _____ | 6. NaOH | _____ |

D. ELECTROLYTES: Complete the table below. To indicate whether the compound given is a strong, weak, or nonelectrolyte, put an X in the appropriate column.

	NAME	FORMULA	ELECTROLYTE		
			STRONG	WEAK	NON
1	ammonium carbonate				
2	potassium monohydrogen phosphate				
3	hydrofluoric acid				
4	sodium hydroxide				
5	tin (II) acetate				
6	propanol (polar)	C ₃ H ₈ O			
7	acetic acid				
8	hypoiodous acid				
9	ammonium sulfide				
10	sulfurous acid				
11	sodium hypochlorite				
12	barium nitrate				
13	lithium cyanide				
14	ammonia				
15	glucose (polar)	C ₁₂ H ₂₂ O ₁₁			

- E. SOLUTION INVENTORY: Complete the following table. For each of the compounds, all of which are soluble in water, first indicate whether the solute particle(s) in the solution will be primarily ions or molecules by writing an X in the appropriate column. Then write the symbol(s) and/or formula(s) for the solute particles (the solution inventory).

	COMPOUND	MOLECULES OR IONS		SOLUTION INVENTORY (write symbol(s) and/or formula(s) only)
		MOLECULES	IONS	
1	calcium nitrate			
2	iron (III) acetate			
3	tin (II) bromide			
4	lithium hydroxide			
5	bromic acid			
6	ammonia			
7	C ₃ H ₇ O			
8	sodium sulfide			
9	HCHO ₂			
10	potassium cyanide			
11	phosphorous acid			
12	lithium oxalate			