Naming Compounds Practice

Compound – pure substance made of two or more atoms different elements chemically bonded together

Two Types of Compounds

1. **Molecular** – contains only covalent bonds; made of nonmetals; names contain prefixes
2. **Ionic** – contains ionic bonds; made of two ions (usually a metal and nonmetal); names DO NOT contain prefixes
   *Note: a polyatomic ion can replace the metal and/or the nonmetal ion in an ionic bond. To name an ionic compound containing a polyatomic ion, follow normal ionic rules, except do not change the ending of polyatomic ion name (i.e. use the name of the polyatomic ion as is).

Directions: Identify each compound as either ionic or molecular. Determine if prefixes are needed. Then write the formula name of the compound.

	Formula	Ionic or Molecular?	Prefixes? Yes or No	Formula Name
1	NaCl	ionic	NO	sodium chloride
2	$Ca(NO_3)_2$	ionic	NO	calcium nitrate
3	CBr_4	molec	yes	carbon tetrabromide
4	MgF_2	ionic	NO	magnesium fluoride
5	P_2O_5	molec	yes	diphosphorus pentoxide
6	K_2SO_4	ionic	NO	potassium sulfate
7	N_3O_6	molec	yes	trinitrogen hexoxide
8	KI	ionic	NO	potassium iodide
9	$(NH_4)_2S$	ionic	NO	ammonium sulfide
10	Sr_3N_2	ionic	NO	strontium nitride

11	CO	molec	Yes	Carbon monoxide
12	$BaCO_3$	ionic	NO	barium carbonate
13	C_5H_7	molec	yes	pentacarbon heptahydride
14	Li_3PO_4	ionic	NO	lithium phosphate
15	K_3N	ionic	NO	potassium nitride