

Answer Key

Writing Chemical Formulas

(Honors Chemistry)

	Element	Valence Electrons	Ionic Charge	Element	Valence Electrons	Ionic Charge	Chemical Formula
1.	Lithium	1	1 ⁺	Nitrogen	5	3 ⁻	Li₃N
2.	Calcium	2	2 ⁺	Fluorine	7	1 ⁻	CaF₂
3.	Bromine	7	1 ⁻	Beryllium	2	2 ⁺	BeBr₂
4.	Sulfur	6	2 ⁻	Indium	3	3 ⁺	In₂S₃
5.	Magnesium	2	2 ⁺	Bromine	7	1 ⁻	MgBr₂
6.	Gallium	3	3 ⁺	Oxygen	6	2 ⁻	Ga₂O₃
7.	Fluorine	7	1 ⁻	Francium	1	1 ⁺	FrF
8.	Potassium	1	1 ⁺	Arsenic	5	3 ⁻	K₃As
9.	Nitrogen	5	3 ⁻	Strontium	2	2 ⁺	Sr₃N₂
10.	Aluminum	3	3 ⁺	Oxygen	6	2 ⁻	Al₂O₃
11.	Sodium	1	1 ⁺	Iodine	7	1 ⁻	NaI
12.	Phosphorus	5	3 ⁻	Cadmium	2	2 ⁺	Cd₃P₂
13.	Scandium	2	3 ⁺	Tellurium	6	2 ⁻	Sc₂Te₃
14.	Rubidium	1	1 ⁺	Oxygen	6	2 ⁻	Rb₂O
15.	Oxygen	6	2 ⁻	Zinc	2	2 ⁺	ZnO
16.	Silver	2	1 ⁺	Sulfur	6	2 ⁻	Ag₂S
17.	Phosphorus	5	3 ⁻	Beryllium	2	2 ⁺	Be₃P₂
18.	Gallium	3	3 ⁺	Selenium	6	2 ⁻	Ga₂Se₃
19.	Hydrogen	1	1 ⁺	Chlorine	7	1 ⁻	HCl
20.	Nitrogen	5	3 ⁻	Barium	2	2 ⁺	Ba₃N₂

Write the charge of the ion or polyatomic ion in the ionic charge box, then write the chemical formula.

	<u>Substance</u>	<u>Ionic Charge</u>	<u>Substance</u>	<u>Ionic Charge</u>	<u>Chemical Formula</u>
21.	Lithium	1⁺	Phosphate	PO₄³⁻	Li₃PO₄
22.	Calcium	2⁺	Nitrate	NO₃⁻	Ca(NO₃)₂
23.	Chlorate	ClO₃⁻	Beryllium	2⁺	Be(ClO₃)₂
24.	chromate	CrO₄²⁻	Indium	3⁺	In₂(CrO₄)₃
25.	Magnesium	2⁺	perchlorate	ClO₄⁻	Mg(ClO₄)₂
26.	Gallium	3⁺	Oxalate	C₂O₄²⁻	Ga₂(C₂O₄)₃
27.	hypochlorite	ClO⁻	Francium	1⁺	FrClO
28.	Potassium	1⁺	Phosphite	PO₃³⁻	K₃PO₃
29.	Acetate	C₂H₃O₂⁻	Strontium	2⁺	Sr(C₂H₃O₂)₂
30.	Aluminum	3⁺	carbonate	CO₃²⁻	Al₂(CO₃)₃
31.	Sodium	1⁺	Dichromate	Cr₂O₇²⁻	Na₂Cr₂O₇
32.	cyanide	CN⁻	Cadmium	2⁺	Cd(CN)₂
33.	Scandium	3⁺	Carbonate	CO₃²⁻	Sc₂(CO₃)₃
34.	Rubidium	1⁺	sulfite	SO₃²⁻	Rb₂SO₃
35.	Permanganate	MnO₄⁻	Zinc	2⁺	Zn(MnO₄)₂
36.	Silver	1⁺	Sulfate	SO₄²⁻	Ag₂SO₄
37.	chlorite	ClO₂⁻	Beryllium	2⁺	Be(ClO₂)₂
38.	Gallium	3⁺	Hydroxide	OH⁻	Ga(OH)₃
39.	Hydrogen	1⁺	Sulfate	SO₄²⁻	H₂SO₄
40.	Nitrogen	3⁻	Ammonium	NH₄⁺	(NH₄)₃N
41.	Silver	1⁺	nitrate	NO₃⁻	AgNO₃
42.	Ammonium	NH₄⁺	phosphate	PO₄³⁻	(NH₄)₃PO₄