

**Suggested Answers**

- Answers will vary. Students should present practical ways to improve.
- (a) calcium fluoride                      (d) lithium bromide  
(b) potassium sulfide                      (e) calcium phosphide  
(c) aluminum oxide
- (a) KBr  
(b) CaO  
(c) Na<sub>2</sub>S
- SnO<sub>2</sub> is correct because the ratio is in simplest terms.
- copper(I) bromide, CuBr; copper(II) bromide, CuBr<sub>2</sub>
- All compounds are neutral, so the net charge of ions must be zero.
- (a) CaCl<sub>2</sub>                                      (d) Li<sub>3</sub>N  
(b) AlBr<sub>3</sub>                                      (e) Ca<sub>3</sub>N<sub>2</sub>  
(c) MgS
- Having a consistent system allows different people to be sure that they are always identifying the same chemical.
- Table 4** Chemical Names and Formulas of Ionic Compounds

	Name	Formula
(a)	iron(II) bromide	FeBr <sub>2</sub>
(b)	manganese (IV) oxide	MnO <sub>2</sub>
(c)	tin(IV) chloride	SnCl <sub>4</sub>
(d)	copper(II) sulfide	CuS
(e)	iron(III) nitride	FeN
(f)	copper(III) oxide	Cu <sub>2</sub> O <sub>3</sub>
(g)	lead(II) chloride	PbCl <sub>2</sub>
(h)	iron(III) oxide	Fe <sub>2</sub> O <sub>3</sub>

	Name	Formula
(i)	tin(II) sulfide	SnS
(j)	copper(II) phosphide	Cu <sub>3</sub> P <sub>2</sub>
(k)	calcium bromide	CaBr <sub>2</sub>
(l)	copper(I) fluoride	CuF <sub>2</sub>
(m)	potassium phosphide	K <sub>3</sub> P
(n)	copper(I) phosphide	Cu <sub>3</sub> P

- The compound contains 2 Fe<sup>3+</sup> ions and 1 Fe<sup>2+</sup> ion, making the total positive ion charge of 18. Four O<sup>2-</sup> ions are required to balance the charge.