

Mr. MacGillivray  
General Chemistry

Practice Problems: Writing Formulas for Ternary Ionic Compounds

	a) $\text{NO}_3^-$	b) $\text{SO}_4^{2-}$	c) $\text{PO}_4^{3-}$	d) $\text{ClO}^-$	e) $\text{C}_2\text{O}_4^{2-}$	f) $\text{CO}_3^{2-}$	g) $\text{MnO}_4^-$
1) $\text{Na}^+$	$\text{NaNO}_3$	$\text{Na}_2\text{SO}_4$	$\text{Na}_3\text{PO}_4$	$\text{NaClO}$	$\text{Na}_2\text{C}_2\text{O}_4$	$\text{Na}_2\text{CO}_3$	$\text{NaMnO}_4$
2) $\text{Ba}^{2+}$	$\text{Ba}(\text{NO}_3)_2$	$\text{BaSO}_4$	$\text{Ba}_3(\text{PO}_4)_2$	$\text{Ba}(\text{ClO})_2$	$\text{BaC}_2\text{O}_4$	$\text{BaCO}_3$	$\text{Ba}(\text{MnO}_4)_2$
3) $\text{Al}^{3+}$	$\text{Al}(\text{NO}_3)_3$	$\text{Al}_2(\text{SO}_4)_3$	$\text{AlPO}_4$	$\text{Al}(\text{ClO})_3$	$\text{Al}_2(\text{C}_2\text{O}_4)_3$	$\text{Al}_2(\text{CO}_3)_3$	$\text{Al}(\text{MnO}_4)_3$
4) $\text{Cu}^+$	$\text{CuNO}_3$	$\text{Cu}_2\text{SO}_4$	$\text{Cu}_3\text{PO}_4$	$\text{CuClO}$	$\text{Cu}_2\text{C}_2\text{O}_4$	$\text{Cu}_2\text{CO}_3$	$\text{CuMnO}_4$
5) $\text{Cu}^{2+}$	$\text{Cu}(\text{NO}_3)_2$	$\text{CuSO}_4$	$\text{Cu}_3(\text{PO}_4)_2$	$\text{Cu}(\text{ClO})_2$	$\text{CuC}_2\text{O}_4$	$\text{CuCO}_3$	$\text{Cu}(\text{MnO}_4)_2$
6) $\text{Fe}^{2+}$	$\text{Fe}(\text{NO}_3)_2$	$\text{FeSO}_4$	$\text{Fe}_3(\text{PO}_4)_2$	$\text{Fe}(\text{ClO})_2$	$\text{FeC}_2\text{O}_4$	$\text{FeCO}_3$	$\text{Fe}(\text{MnO}_4)_2$
7) $\text{Fe}^{3+}$	$\text{Fe}(\text{NO}_3)_3$	$\text{Fe}_2(\text{SO}_4)_3$	$\text{FePO}_4$	$\text{Fe}(\text{ClO})_3$	$\text{Fe}_2(\text{C}_2\text{O}_4)_3$	$\text{Fe}_2(\text{CO}_3)_3$	$\text{Fe}(\text{MnO}_4)_3$
8) $\text{K}^+$	$\text{KNO}_3$	$\text{K}_2\text{SO}_4$	$\text{K}_3\text{PO}_4$	$\text{KClO}$	$\text{K}_2\text{C}_2\text{O}_4$	$\text{K}_2\text{CO}_3$	$\text{KMnO}_4$
9) $\text{Ca}^{2+}$	$\text{Ca}(\text{NO}_3)_2$	$\text{CaSO}_4$	$\text{Ca}_3(\text{PO}_4)_2$	$\text{Ca}(\text{ClO})_2$	$\text{CaC}_2\text{O}_4$	$\text{CaCO}_3$	$\text{Ca}(\text{MnO}_4)_2$
10) $\text{Co}^{2+}$	$\text{Co}(\text{NO}_3)_2$	$\text{CoSO}_4$	$\text{Co}_3(\text{PO}_4)_2$	$\text{Co}(\text{ClO})_2$	$\text{CoC}_2\text{O}_4$	$\text{CoCO}_3$	$\text{Co}(\text{MnO}_4)_2$
11) $\text{Pb}^{4+}$	$\text{Pb}(\text{NO}_3)_4$	$\text{Pb}(\text{SO}_4)_2$	$\text{Pb}_3(\text{PO}_4)_4$	$\text{Pb}(\text{ClO})_4$	$\text{Pb}(\text{C}_2\text{O}_4)_2$	$\text{Pb}(\text{CO}_3)_2$	$\text{Pb}(\text{MnO}_4)_4$
12) $\text{Sn}^{2+}$	$\text{Sn}(\text{NO}_3)_2$	$\text{SnSO}_4$	$\text{Sn}_3(\text{PO}_4)_2$	$\text{Sn}(\text{ClO})_2$	$\text{SnC}_2\text{O}_4$	$\text{SnCO}_3$	$\text{Sn}(\text{MnO}_4)_2$
13) $\text{Hg}^{2+}$	$\text{Hg}(\text{NO}_3)_2$	$\text{HgSO}_4$	$\text{Hg}_3(\text{PO}_4)_2$	$\text{Hg}(\text{ClO})_2$	$\text{HgC}_2\text{O}_4$	$\text{HgCO}_3$	$\text{Hg}(\text{MnO}_4)_2$
14) $\text{Zn}^{2+}$	$\text{Zn}(\text{NO}_3)_2$	$\text{ZnSO}_4$	$\text{Zn}_3(\text{PO}_4)_2$	$\text{Zn}(\text{ClO})_2$	$\text{ZnC}_2\text{O}_4$	$\text{ZnCO}_3$	$\text{Zn}(\text{MnO}_4)_2$

<b>1 a</b>	sodium	nitrate	<b>6 a</b>	iron (II)	nitrate
<b>1 b</b>	sodium	sulfate	<b>6 b</b>	iron (II)	sulfate
<b>1 c</b>	sodium	phosphate	<b>6 c</b>	iron (II)	phosphate
<b>1 d</b>	sodium	hypochlorite	<b>6 d</b>	iron (II)	hypochlorit
<b>1 e</b>	sodium	oxalate	<b>6 e</b>	iron (II)	oxalate
<b>1 f</b>	sodium	carbonate	<b>6 f</b>	iron (II)	carbonate
<b>1 g</b>	sodium	permanganate	<b>6 g</b>	iron (II)	permangan
<b>2 a</b>	barium	nitrate	<b>7 a</b>	iron (III)	nitrate
<b>2 b</b>	barium	sulfate	<b>7 b</b>	iron (III)	sulfate
<b>2 c</b>	barium	phosphate	<b>7 c</b>	iron (III)	phosphate
<b>2 d</b>	barium	hypochlorite	<b>7 d</b>	iron (III)	hypochlorit
<b>2 e</b>	barium	oxalate	<b>7 e</b>	iron (III)	oxalate
<b>2 f</b>	barium	carbonate	<b>7 f</b>	iron (III)	carbonate
<b>2 g</b>	barium	permanganate	<b>7 g</b>	iron (III)	permangan
<b>3 a</b>	aluminum	nitrate	<b>8 a</b>	potassium	nitrate
<b>3 b</b>	aluminum	sulfate	<b>8 b</b>	potassium	sulfate
<b>3 c</b>	aluminum	phosphate	<b>8 c</b>	potassium	phosphate
<b>3 d</b>	aluminum	hypochlorite	<b>8 d</b>	potassium	hypochlorit
<b>3 e</b>	aluminum	oxalate	<b>8 e</b>	potassium	oxalate
<b>3 f</b>	aluminum	carbonate	<b>8 f</b>	potassium	carbonate
<b>3 g</b>	aluminum	permanganate	<b>8 g</b>	potassium	permangan
<b>4 a</b>	copper (I)	nitrate	<b>9 a</b>	calcium	nitrate
<b>4 b</b>	copper (I)	sulfate	<b>9 b</b>	calcium	sulfate
<b>4 c</b>	copper (I)	phosphate	<b>9 c</b>	calcium	phosphate
<b>4 d</b>	copper (I)	hypochlorite	<b>9 d</b>	calcium	hypochlorit
<b>4 e</b>	copper (I)	oxalate	<b>9 e</b>	calcium	oxalate
<b>4 f</b>	copper (I)	carbonate	<b>9 f</b>	calcium	carbonate
<b>4 g</b>	copper (I)	permanganate	<b>9 g</b>	calcium	permangan
<b>5 a</b>	copper (II)	nitrate	<b>10 a</b>	cobalt (II)	nitrate
<b>5 b</b>	copper (II)	sulfate	<b>10 b</b>	cobalt (II)	sulfate
<b>5 c</b>	copper (II)	phosphate	<b>10 c</b>	cobalt (II)	phosphate
<b>5 d</b>	copper (II)	hypochlorite	<b>10 d</b>	cobalt (II)	hypochlorit
<b>5 e</b>	copper (II)	oxalate	<b>10 e</b>	cobalt (II)	oxalate
<b>5 f</b>	copper (II)	carbonate	<b>10 f</b>	cobalt (II)	carbonate
<b>5 g</b>	copper (II)	permanganate	<b>10 g</b>	cobalt (II)	permangan

**11 a** lead (IV) nitrate  
**11 b** lead (IV) sulfate  
**11 c** lead (IV) phosphate  
**11 d** lead (IV) hypochlorite  
**11 e** lead (IV) oxalate  
**11 f** lead (IV) carbonate  
**11 g** lead (IV) permanganate

**12 a** tin (II) nitrate  
**12 b** tin (II) sulfate  
**12 c** tin (II) phosphate  
**12 d** tin (II) hypochlorite  
**12 e** tin (II) oxalate  
**12 f** tin (II) carbonate  
**12 g** tin (II) permanganate

**13 a** mercury (II) nitrate  
**13 b** mercury (II) sulfate  
**13 c** mercury (II) phosphate  
**13 d** mercury (II) hypochlorite  
**13 e** mercury (II) oxalate  
**13 f** mercury (II) carbonate  
**13 g** mercury (II) permanganate

**14 a** zinc nitrate  
**14 b** zinc sulfate  
**14 c** zinc phosphate  
**14 d** zinc hypochlorite  
**14 e** zinc oxalate  
**14 f** zinc carbonate  
**14 g** zinc permanganate