

Polyatomic Ions

Name Ken Period _____ Date _____

Instructions: Complete this table by writing each formula.

	Carbonate (CO_3) ⁻²	Phosphate (PO_4) ⁻³	Hydroxide (OH) ⁻¹	Sulfate (SO_4) ⁻²	Nitrate (NO_3) ⁻¹	Acetate ($\text{C}_2\text{H}_3\text{O}_2$) ⁻¹
Ammonium NH_4 ⁺¹	$(\text{NH}_4)_2\text{CO}_3$	$(\text{NH}_4)_3\text{PO}_4$	NH_4OH	$(\text{NH}_4)_2\text{SO}_4$	NH_4NO_3	$\text{NH}_4\text{C}_2\text{H}_3\text{O}_2$
Barium Ba ⁺²	BaCO_3	$\text{Ba}_3(\text{PO}_4)_2$	$\text{Ba}(\text{OH})_2$	$\text{Ba}_2(\text{SO}_4)_2$	$\text{Ba}(\text{NO}_3)_2$	$\text{Ba}(\text{C}_2\text{H}_3\text{O}_2)_2$
Lithium Li ⁺¹	Li_2CO_3	Li_3PO_4	LiOH	Li_2SO_4	LiNO_3	$\text{LiC}_2\text{H}_3\text{O}_2$
Aluminum Al ⁺³	$\text{Al}_2(\text{CO}_3)_3$	AlPO_4	$\text{Al}(\text{OH})_3$	$\text{Al}_2(\text{SO}_4)_3$	$\text{Al}(\text{NO}_3)_3$	$\text{Al}(\text{C}_2\text{H}_3\text{O}_2)_3$
Iron (II) Fe ⁺²	FeCO_3	$\text{Fe}_3(\text{PO}_4)_2$	$\text{Fe}(\text{OH})_2$	FeSO_4	$\text{Fe}(\text{NO}_3)_2$	$\text{Fe}(\text{C}_2\text{H}_3\text{O}_2)_2$
Cobalt (III) Co ⁺³	$\text{Co}_2(\text{CO}_3)_3$	CoPO_4	$\text{Co}(\text{OH})_3$	$\text{Co}_2(\text{SO}_4)_3$	$\text{Co}(\text{NO}_3)_3$	$\text{Co}(\text{C}_2\text{H}_3\text{O}_2)_3$
Copper (I) Cu ⁺¹	Cu_2CO_3	Cu_3PO_4	CuOH	Cu_2SO_4	CuNO_3	$\text{CuC}_2\text{H}_3\text{O}_2$
Lead (IV) Pb ⁺⁴	$\text{Pb}(\text{CO}_3)_2$	$\text{Pb}_3(\text{PO}_4)_4$	$\text{Pb}(\text{OH})_4$	$\text{Pb}(\text{SO}_4)_2$	$\text{Pb}(\text{NO}_3)_4$	$\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_4$

1. Write the formula for each of the following compounds that contain polyatomic ions. Be sure to enclose the polyatomic ion in parentheses if more than one such ion is needed.

Name	Formula	Name	Formula
Calcium phosphate	$\text{Ca}_3(\text{PO}_4)_2$	Iron (III) acetate	$\text{Fe}(\text{C}_2\text{H}_3\text{O}_2)_3$
Ammonium nitrate	NH_4NO_3	Barium sulfate	BaSO_4
Aluminum carbonate	$\text{Al}_2(\text{CO}_3)_3$	Copper (I) hydroxide	CuOH

