

Polyatomic Ions Worksheet

Complete the table with the appropriate information.

Name of the Ion	Charge of the Ion	Number of Constituent Atoms	Chemical Formula
Hydroxide			
Sulfate			
Sulfite			
Nitrate			
Nitrite			
Carbonate			
Ammonium			
Phosphate			
Permanganate			
Bromate			
Chlorate			
Acetate			
Cyanate			
Thiosulfate			

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Answers

Name of the Ion	Charge of the Ion	Number of Constituent Atoms	Chemical Formula
Hydroxide	-1	1 oxygen and 1 hydrogen	OH^-
Sulfate	-2	1 sulfur and 4 oxygen	SO_4^{2-}
Sulfite	-2	1 sulfur and 3 oxygen	SO_3^{2-}
Nitrate	-1	1 nitrogen and 3 oxygen	NO_3^-
Nitrite	-1	1 nitrogen and 2 oxygen	NO_2^-
Carbonate	-2	1 carbon and 3 oxygen	CO_3^{2-}
Ammonium	+1	1 nitrogen and 4 hydrogen	NH_4^+
Phosphate	-3	1 phosphorus and 4 oxygen	PO_4^{3-}
Permanganate	-1	1 manganese and 4 oxygen	MnO_4^-
Bromate	-1	1 bromine and 3 oxygen	BrO_3^-
Chlorate	-1	1 chlorine and 3 oxygen	ClO_3^-
Acetate	-1	2 carbon, 2 oxygen, and 3 hydrogen	$\text{C}_2\text{H}_3\text{O}_2^-$
Cyanate	-1	1 carbon, 1 nitrogen, and 1 oxygen	CNO^-
Thiosulfate	-2	2 sulfur and 3 oxygen	$\text{S}_2\text{O}_3^{2-}$