

Naming Ions

Polyatomic Ions

Rule: Look up the name or symbol from your polyatomic ion sheet.

Example 1: ammonium ion _____

Example 2: NO_3^- _____

Example 3: NO_2^- _____

Monatomic Ions

• CATIONS

Rule A: If the atom always forms the same charge when forming an ion, (all group 1, group 2, and Zn^{2+} , Ag^+ , Cd^{2+} , & Al^{3+}), take the name of the atom that the ion is formed from, and add "ion".

Example 4: Na^+ _____

Example 5: Mg^{2+} _____

Example 6: aluminum ion _____

Rule B: If the atom can form more than one charge when forming an ion, (any of the transition metals and any metals underneath the staircase), take the name of the atom that the ion is formed from, place the charge as a Roman numeral in parentheses, and then add "ion".

Example 7: Pb^{2+} _____

Example 9: copper(I) ion _____

Example 8: Fe^{2+} _____

Example 10: copper(II) ion _____

Try These:

11. Rb^+ _____

15. Fe^{3+} _____

12. Ca^{2+} _____

16. cobalt(II) ion _____

13. Ni^+ _____

17. lithium ion _____

14. Ag^+ _____

18. zinc ion _____

- ANIONS

Rule: Take the nonmetal atom name, remove the ending and add “-ide ion” to it.

Example 21: S^{2-} _____

Example 22: N^{3-} _____

Example 23: bromide ion _____

Example 24: telluride ion _____

YOU TRY IT!

25. iodide ion _____

26. selenide ion _____

27. F^- _____

28. O^{2-} _____

Let's Compare some ions:

N^{3-} _____

NO_2^- _____

NO_3^- _____

sulfide ion _____

sulfite ion _____

sulfate ion _____