

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

## Writing Formulas from Names Containing Transition Metals

Write the correct formula for each of the following binary compounds containing transition metals.

Step 1: Look up the symbol and the charge for the metal. If there is a (roman numeral), the **Roman numeral is the charge**.

Step 2: Look up the symbol and the charge for the nonmetal.

Step 3: Write the symbol and the charge side by side with the positive charge first.

Step 4: Write the formula so that the sum of the charges is zero.

**Example: Iron (II) fluoride:  $\text{Fe}^{2+}$   $\text{F}^{1-}$   $\text{FeF}_2$**

- |                                  |                                 |
|----------------------------------|---------------------------------|
| _____ 1. Iron (II) chloride      | _____ 2. Iron (III) chloride    |
| _____ 3. Iron (II) oxide         | _____ 4. Iron (III) oxide       |
| _____ 5. Iron (II) nitride       | _____ 6. Iron (III) nitride     |
| _____ 7. Copper (I) bromide      | _____ 8. Copper (II) bromide    |
| _____ 9. Copper (I) sulfide      | _____ 10. Copper (II) sulfide   |
| _____ 11. Copper (I) phosphide   | _____ 12. Copper (II) phosphide |
| _____ 13. Tin (II) fluoride      | _____ 14. Tin (IV) fluoride     |
| _____ 15. Tin (II) oxide         | _____ 16. Tin (IV) oxide        |
| _____ 17. Tin (II) nitride       | _____ 18. Tin (IV) nitride      |
| _____ 19. Lead (II) iodide       | _____ 20. Lead (IV) iodide      |
| _____ 21. Lead (II) sulfide      | _____ 22. Lead (IV) sulfide     |
| _____ 23. Lead (II) phosphide    | _____ 24. Lead (IV) phosphide   |
| _____ 25. Cobalt (II) phosphide  | _____ 26. Cobalt(III) phosphide |
| _____ 27. Cobalt (II) oxide      | _____ 28. Cobalt (III) oxide    |
| _____ 29. Chromium (II) chloride | _____ 30. Cobalt (II) chloride  |
| _____ 31. Nickel (II) oxide      | _____ 32. Nickel (II) nitride   |