

Covalent compounds.

Name: _____

Formula Assignment #5 Compound Names and Formulas Compounds that use the Prefix System

Prefixes and their meanings

mono = 1, di or bi = 2, tri = 3, tetra = 4, penta = 5,
hexa = 6, hepta = 7, octo = 8, nona = 9, deca = 10

A. Write the correct chemical formula for these compounds. The prefix in front of the element indicates how many of that atom will be in the compound. **DO NOT USE THE CROSS RULE FOR THESE COMPOUNDS.**

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|----------------------------------|--|
| 1. carbon monoxide _____ | 11. boron trichloride _____ |
| 2. carbon tetrachloride _____ | 12. carbon tetraiodide _____ |
| 3. carbon dioxide _____ | 13. boron trichloride _____ |
| 4. sulphur dioxide _____ | 14. carbon tetrafluoride _____ |
| 5. sulphur trioxide _____ | 15. aluminum trioxide _____ |
| 6. diphosphorous trioxide _____ | 16. selenium trioxide _____ |
| 7. carbon tetrafluoride _____ | 17. nitrogen trifluoride _____ |
| 8. lead dioxide _____ | 18. sulphur dichloride _____ |
| 9. dihydrogen dioxide _____ | 19. nitrogen dioxide _____ |
| 10. selenium trioxide _____ | 20. dinitrogen tetroxide _____ |

B. The following elements exist in nature as diatomic molecules (2 atoms per molecule). Write the formula for each of these elements.

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|--|-----------------------|
| 1. hydrogen gas _____ H ₂ _____ | 5. fluorine gas _____ |
| 2. chlorine gas _____ | 6. bromine gas _____ |
| 3. nitrogen gas _____ | 7. iodine solid _____ |
| 4. oxygen gas _____ | |

NAMING BINARY COMPOUNDS (COVALENT)

Name _____

Name the following compounds using the prefix method.

1. CO _____

2. CO₂ _____

3. SO₂ _____

4. NO₂ _____

5. N₂O _____

6. SO₃ _____

7. CCl₄ _____

8. NO _____

9. N₂O₅ _____

10. P₂O₅ _____

11. N₂O₄ _____

12. CS₂ _____

13. OF₂ _____

14. PCl₃ _____

15. PBr₅ _____