



Name: _____

Period: _____

Assigned on Fri, Oct 3, 2025

7.4 Molecular Compound Nomenclature and Mixed Review

Due Mon Oct 6, 2025

New Stuff: Binary Molecular Compounds

I. Name the following molecular compounds.

1. NO_2 _____2. P_2O_3 _____3. C_4H_8 _____4. XeF_4 _____5. P_2O_5 _____6. BBr_3 _____7. SF_6 _____**Review: Ionic Compounds**

III. Name the following ionic compounds.

15. NaCl _____16. Cu_3P _____17. $\text{Co}(\text{ClO}_2)_2$ _____18. MgO _____19. $(\text{NH}_4)_2\text{S}$ _____20. MnP_2 _____

II. Write the following molecular formulas.

8. carbon disulfide _____

9. dinitrogen tetroxide _____

10. nitrogen triiodide _____

11. phosphorus pentachloride _____

12. silicon dioxide _____

13. nitrogen trihydride _____

14. dinitrogen pentoxide _____

IV. Write the following ionic formulas.

21. sodium bromide _____

22. manganese(IV) sulfite _____

23. calcium iodide _____

24. zinc oxide _____

25. iron(II) permanganate _____

26. potassium cyanide _____

Mixed Practice

V. Name the compound or write the formula for each of the following. (Remember: you must determine the type of bond present first before you can decide how to name the compound. M + NM = ionic bond; NM + NM = covalent bond)

	Type of Bond	Name
27. $\text{Ga}(\text{BrO})_3$	_____	_____
28. PCl_5	_____	_____
29. CO_2	_____	_____
30. K_2CO_3	_____	_____
31. FeCl_2	_____	_____
32. P_3O_7	_____	_____
33. NH_3	_____	_____

34. titanium(IV) oxide _____

35. sulfur hexafluoride _____

36. diphosphorus pentoxide _____

37. ammonium phosphate _____

38. carbon disulfide _____

39. vanadium(VI) phosphide _____

40. lithium bromite _____

Answers:

1. nitrogen dioxide
2. diphosphorous trioxide
3. tetracarbonoctahydride
4. xenon tetrafluoride
5. diphosphorous pentoxide
6. boron tribromide
7. sulfur hexafluoride
8. CS_2
9. N_2O_4
10. NI_3
11. PCl_5
12. SiO_2
13. NH_3
14. N_2O_5
15. sodium chloride
16. copper(I) phosphide
17. cobalt(II) chlorite
18. magnesium oxide
19. ammonium sulfide
20. manganese(VI) phosphide
21. NaBr
22. $\text{Mn}(\text{SO}_3)_2$
23. CaI_2
24. ZnO
25. $\text{Fe}(\text{MnO}_4)_2$
26. KCN
27. ionic; gallium hypobromite
28. covalent; phosphorous pentachloride
29. covalent; carbon dioxide
30. ionic; potassium carbonate
31. ionic; iron(III) chloride
32. covalent; triphosphorous heptoxide
33. covalent; nitrogen trihydride
34. TiO_2
35. SF_6
36. P_2O_5
37. $(\text{NH}_4)_3\text{PO}_4$
38. CS_2
39. VP_2
40. LiBrO_2