

Practice exam for Molecular and Ionic Compounds

1. What is the name of the compound with the formula N_2O ?
2. What is the correct formula for sodium oxide? NaO_2 SO_2 S_2O Na_2O
3. The formula Cl_2 represents a: gram molecule atom liter
4. What is the correct formula for chromium (III) oxide? CrO_3 Cr_3O_2 Cr_2O_3 Cr_3O
5. An atom represented by X forms a compound X_3N_2 . The atom could be: Al Cs Mg Na
6. How many oxygen atoms are present in this formula: $Al_2(CO_3)_3$? 10 9 6 3
7. What is the correct name for this compound: $CrPO_4$?
chromium (II) phosphate chromium (III) phosphate
chromium (II) phosphide chromium (III) phosphide
8. What is the correct formula for iron (III) oxide? Fe_3O_2 Fe_3O Fe_2O_3 FeO_3
9. The HONCIBrIF twins are: great chem students at UE diatomic elements
elements that only combine with themselves friends of Mr. Arbuiso
10. what is the formula for lead (II) oxide? Pb_2O_3 PbO_2 PbO Pb_2O
11. The correct formula of the thiosulfate anion is: SO_3^- SCN^- $S_2O_3^{-2}$ SO_4^{-2}
12. When cations and anions combine they form: molecules formula units ions atoms
13. there is no question thirteen
14. The formula N_2O_5 is a compound named: _____
15. What is the neutral compound formed when magnesium combines with phosphorous?
 Mg_2P_3 Mg_2P Mg_3P_2 MgP_2
16. How many bromine anions would it take to combine to one strontium cation? 1 2 3 4
17. Group 2 of the periodic table are the: metals alkali metals alkaline earth metals gases
18. Non metals are found on the right or left of the mettaloid line on the periodic table?
19. Group 17 atoms always make this kind of ion: +1 +17 -1 -17
20. Ionic compounds are made up of which 2 of these:
metals non-metals noble gases HONCIBrIF twins polyatomic ions dogs cats
21. Write the names of these compounds:
A. NaCl _____ C. $(NH_4)_3PO_4$ _____

B. KOH _____ D. $\text{Be}(\text{C}_2\text{H}_3\text{O}_2)_2$ _____

22. Write the formulas of these names

A. Cobalt (III) thiocyanate _____ C. Lead (IV) chromate _____
B. Tin (II) hydroxide _____ D. Iron (II) oxide _____

23. Which of these properties do NON METALS have?

luster ductility malleability form anions conduct heat gas at room temp form cations

24. Group 18 forms: anions cations no ions headaches

25. Molecular compounds... write out these formulas as word names:

A. sulfur dioxide _____ E. carbon monoxide _____
B. carbon tetrachloride _____ F. carbon dioxide _____
C. dinitrogen pentafluoride _____ G. silicon sulfide _____
D. phosphorous trinitride _____ H. arsenic tribromide _____

26. "Count" in prefixes from ten to one: _____

27. Manganese and Fluorine can combine in FOUR ways. Using the selected oxidation states of both elements, show ALL neutral ionically bonded compounds they form.

28. Nickel can combine with Bromine in a variety of ways. Using the selected oxidation states of both elements, show ALL neutral ionically bonded compounds they form.

29. In an atom of gold, how many electrons ____, protons ____, and neutrons ____ are there?

30. In a calcium ion, how many electrons ____, protons ____, and neutrons ____ are there?

31. What noble gas does sulfur mimic when it becomes an ion? _____

32. Al touches the metalloid line. Describe its properties: _____

33. Write the formulas for these compounds:

A. hydrochloric acid _____ D. acetic acid _____
B. sulfuric acid _____ E. calcium hydroxide _____
C. sodium hydroxide _____ F. ammonia _____

34. What is the difference between a molecule and a formula unit? _____

35. N_2H_5 is called: _____