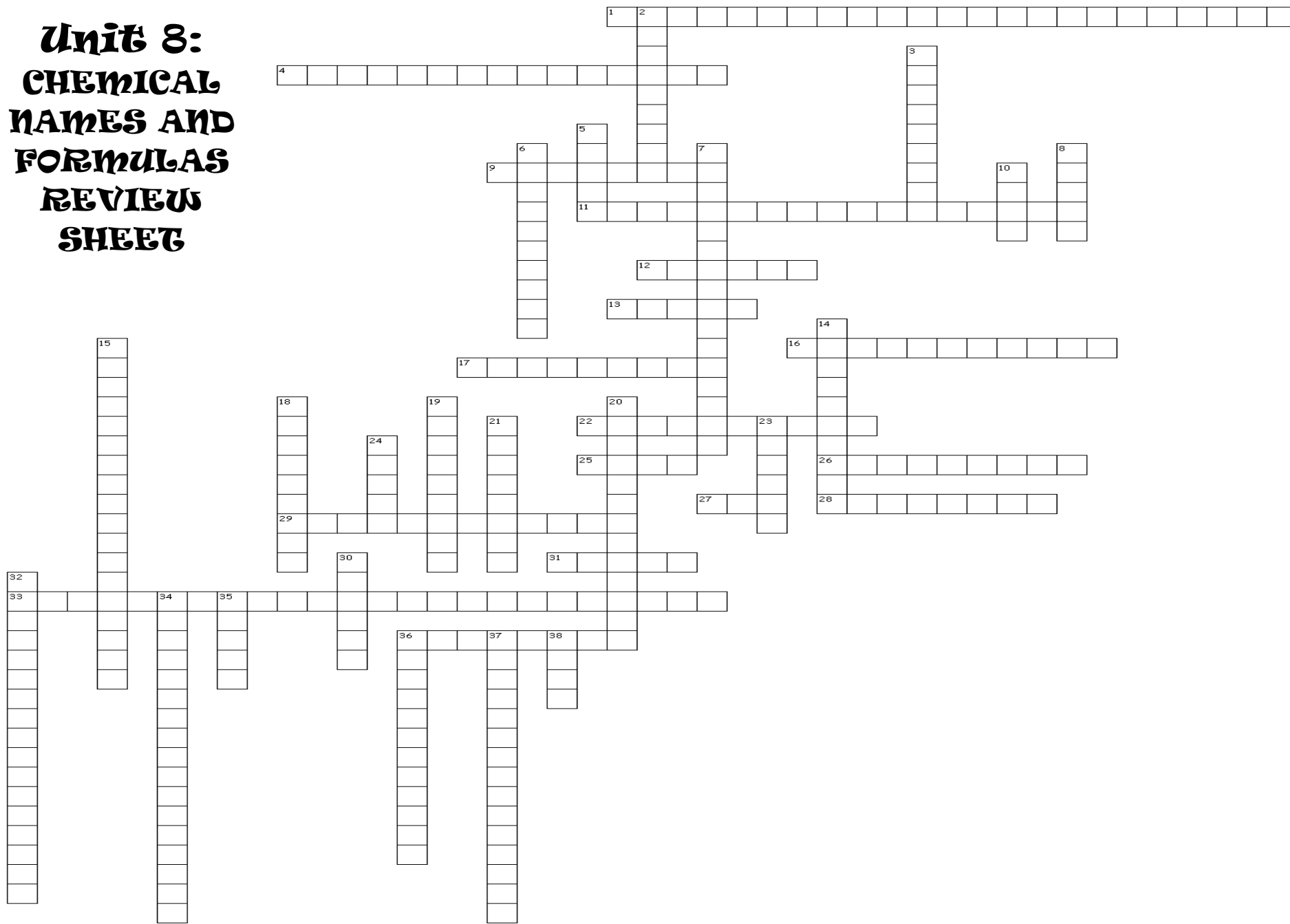


# Unit 8: CHEMICAL NAMES AND FORMULAS REVIEW SHEET



Name \_\_\_\_\_ Date \_\_\_\_\_ Mod \_\_\_\_\_ Exam Date \_\_\_\_\_

### Across

1. Name  $\text{P}_4\text{O}_{10}$
4. The name for a compound of barium and hydroxide
9. A covalent bond wherein the electrons are shared equally among elements
11.  $\text{NH}_4\text{OH}$
12. Have lower electronegativity values
13. The formula for chromium (III) and oxygen
16. the sum of the average atomic masses (amu) of all the atoms represented in its formula
17. the angle formed by two bonds to the same atom
22. average distance between the nuclei of bonded atoms
25. Nona is the prefix for \_\_\_ in a covalent bond
26. the mass of one mole of a chemical compound or the mass of  $6.02 \times 10^{23}$  molecules of a compound
27. The formula for calcium and oxygen
28. A chemical combination of two or more elements having different properties than the individual elements.
29. These have a 1+ oxidation number
31. A covalent bond wherein the electrons are not shared equally
33. This law states that every compound always contains the same elements in the same proportions.
36. The ion  $\text{ClO}_3^{1-}$

### Down

2. The simplest formula. Indicates the lowest whole number ratio of atoms in a compound.
3. A chemical formula that reports the actual numbers of atoms in one molecule of a compound.
5. The prefix for 7 in a covalent bond
6. These have no oxidation number
7. These have various oxidation numbers
8. compounds form in order to follow this rule which states that they need full s and p orbitals ( $8e^-$ ) in order to be stable
10. The formula for beryllium and iodine
14. A compound containing more than two different elements
15. Name  $\text{As}_2\text{O}_5$
18. Have higher electronegativity values
19. The number that tells how many atoms of an element are in a unit of the compound
20. Name  $\text{Na}_2\text{S}$
21. These have a 1- oxidation number
23. Nickel (I) carbonate
24. The prefix for 4 in a covalent bond
30. The type of compound containing only two elements
32. Relative tendency for an element to attract  $e^-$  when bonded in a compound
34. Shows arrangement of bonded atoms/ions within a compound
35. ammonium chloride
36. The name for the compound of calcium and oxygen
37. The positive/negative number assigned to an element that shows its ability to combine in a compound.
38. silver oxide

### Complete on loose-leaf:

- A. Write the formula and the names for: sodium and phosphate ion; zinc and sulfate ion; iron(III) and carbonate ion; aluminum and oxygen, barium and nitrate ion, cesium and bromine, lithium and nitrogen.
- B. Name the following covalent compounds:  $\text{P}_4\text{S}_{10}$ ,  $\text{SiBr}_4$ ,  $\text{S}_2\text{Cl}_2$
- C. Write the formula for the following covalent compounds: disulfur decafluoride, dinitrogen tetroxide, chlorine trifluoride.
- D. Calculate the formula and molar masses for the compounds in B & C.
- E. Calculate the mass of 0.85 mol of hydrogen phosphate.
- F. Calculate the number of moles in 95.0 g of carbon dioxide.

### Also for the exam:

- Be able to write a chemical formula for a given set of elements/polyatomic ions. Know the oxidation numbers of the groups (as well as Zn and Ag).
- Be able to write the compound name for a given formula (ionic and covalent).
- Know the properties of ionic, polar covalent, and nonpolar covalent compounds.

