

Name the following molecular compounds. (Scratch space provided!)

Chemical Formula	Name
6) PBr_3	
7) SiO_2	
8) Graded. PCl_5	
9) Graded. NH_3	
10) Graded. N_2O_4	
11) Graded. N_2O	
12) Graded. Cl_3F_9	
13) Graded. P_4O_{10}	

Write the chemical formulas for the following molecular compounds. (scratch space provided!)

Name	Chemical Formula
14) Silicon Dioxide	
15) Diboron Tetrabromide	
16) Graded. Phosphorus Pentachloride	
17) Graded. Nitrogen Tribromide	
18) Graded. Dihydrogen Monoxide	
19) Graded. Sulfur Hexafluoride	
20) Graded. Iodine Octafluoride	

Selected Answers

1) What are the numeric prefixes (for one through ten) used in compound naming?

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

4) Fluorine has seven valence electrons, but forms only one covalent bond. Explain why this is.
Only valence electrons are involved in covalent bonding, but the total number of bonds that any atom may form is equal to the total number of *unpaired* valence electrons. Fluorine has only 1 unpaired valence electron; the other six valence electrons are all paired.

Name the following molecular compounds.

Chemical Formula	Name
6) PBr_3	Phosphorus Tribromide
7) SiO_2	Silicon Dioxide

Write the chemical formulas for the following molecular compounds.

Name	Chemical Formula
14) Silicon Dioxide	SiO_2
15) Diboron Tetrabromide	B_2Br_4