Answers & Explanation
AP Chemistry Nomenclature & Formula Writing Practice WS
Answers:

1. P_2Br_4	6. H_2S	11. $K_2C_2O_4$	16. NH_3
2. H_3AsO_3	7. SiH_4	12. NO_2	17. LiH_2PO_4
3. $(NH_4)_2Cr_2O_6$	8. $Sr(NO_4)_2$	13. MnO_2^{-1}	18. $HC_2H_3O_2$
4. $Ca(H_2BO)_2$	9. $Cu(OH)_2$	14. H_2CrO	19. $ZnSiO_3$
5. $AlCl_3$	10. $Mn(O_2)_2$	15. H_3P	20. $Ti(HB_4O_6)_3$

Explanation:
1. Diphosphorus tetrabromide- the use of the Greek prefixes "di" and "tetra" and the fact that both elements in the compound are nonmetals tells you this is a covalent molecule and therefore there are no charges to cross. The prefixes tell you the number of each atom in the molecule.

2. Arsenous acid- the absence of the prefix "hydro-" tells you this is an oxyacid with a polyatomic ion. The suffix "-ous acid" indicates that the original polyatomic ion name ended in "-ite". The original polyatomic ion name is "aresenite" which is related to "arsenate" by having the same charge and one less oxygen. As always in an acid, the cation is a hydrogen ion, H^+ and you cross the charges to get the chemical formula.

3. Ammonium dichromite- the presence of a polyatomic ion (two of them in this compound!) indicates this is an ionic compound so you cross the charges to get the chemical formula. Ammonium is the polyatomic ion NH_4^+ and dichromite is related to the polyatomic ion "dichromate" ($Cr_2O_7^{-2}$) by having the same charge and one less oxygen.

4. Calcium dihydrogen hypoborite- the presence of the metal calcium indicates this is an ionic compound so you cross the charges to get the chemical formula. Calcium is a simple metal with a +2 charge. "Dihydrogen hypoborite" is a polyatomic ion. The "hypoborite" part is related to "borate" by having the same charge and two less oxygen atoms. The "dihydrogen" part means that it has two hydrogens bonded to it and so you add two to the charge. The overall polyatomic ion in this case is H_2BO^{-1}.

5. Aluminum chloride- the presence of the aluminum metal indicates this is an ionic compound so you cross the charges to get the chemical formula. This is a simple metal and nonmetal- the charges can be easily predicted using the periodic table.

6. Hydrosulfuric acid- the presence of the prefix "hydro-" tells you this is a binary acid, an acid composed only of a hydrogen ion as the cation and a simple nonmetal as the anion. In this case the nonmetal anion is sulfur with a -2 charge, as predicted by it's placement on the periodic table. As always with an acid, you cross the charges to get the chemical formula.

7. Silicon tetrahydride- the use of the Greek prefix "tetra" and the fact that both elements in the compound are nonmetals indicates this is a covalent molecule and therefore there are no charges to cross. The prefixes tell you the number of each atom in the molecule.

8. Strontium pernitrate- the presence of the metal sodium and a polyatomic ion indicate this is an ionic compound so you'll have to cross the charges to get the chemical formula. Strontium is a simple metal and it's charge can be predicted based on it's position on the periodic table (+2).