Chemistry--Chapter 10-12 Review Worksheet
Show work in your notebook. Work must be organized, complete, and accurate for full credit!!

1. What is the molar mass of C_3H_8?
   a. 36.0 g b. 11.0 g c. 44.0 g d. 6.02×10^{23} g
2. The representative particle for nitrogen is:
   a. an atom b. a molecule c. a formula unit d. none of the above
3. What is the molar mass of $MgCl_2$?
   a. 59.8 g b. 95.3 g c. 125.8 g d. 76.4 g
4. How many grams are in 6.50 moles of H_2SO_4?
   a. 638 g b. 98.1 g c. 15.1 g d. 0.0663 g
5. Find the number of moles in 3.30 g of $(NH_4)_2SO_4$.
   a. 132.1 moles b. 40.0 moles c. 0.0279 moles d. 0.0250 moles
6. What is the mass of 2.56×10^{-4} moles of Fe_2O_3?
   a. 4.09×10^{-2} g b. 159.6 g c. 6.23×10^{5} g d. 1.60×10^{-6} g
7. At STP, one mole of any gas occupies a volume of:
   a. 1 L b. 6.02×10^{23} L c. 22.4 L d. none of the above
8. What is the volume, in liters of 3.75 moles of O_2 gas at STP?
   a. 3.75 L b. 32.0 L c. 84.0 L d. 1.20×10^{2} L
9. Determine the number of moles in 625 L of H_2 gas at STP.
   a. 3.58×10^{-2} mol b. 27.9 mol c. 1.40×10^{4} mol d. 1250 mol
10. The density of a gaseous compound is 1.623 g/L at STP. Determine the molar mass of the compound.
    a. 13.80 g b. 7.246×10^{-2}g c. 1.632 g d. 36.36 g
11. How many atoms are contained in 12.5 grams of silver?
    a. 6.97×10^{22} atoms b. 7.52×10^{24} atoms c. 0.116 atoms d. 1.92×10^{-25}
12. What is the percent of aluminum in $Al_2(SO_4)_3$?
    a. 28.1 % b. 54.0 % c. 15.8 % d. 56.7 %
13. What is the mass of hydrogen in 50.0 g of propane, C_3H_8?
    a. 18.2 g b. 9.1 g c. 44.0 g d. 81.8 g
14. The reaction in the question 18 is an example of a:
    a. combination reaction b. decompostion reaction
    c. single-replacement reaction d. double-replacement reaction
15. When the equation $Fe(s) + O_2(g) \rightarrow Fe_2O_3(s)$ is balanced, what is the coefficient for Fe_2O3?
    a. 1 b. 2 c. 3 d. 4
16. The reaction in question 15 is an example of a:
    a. combination reaction b. decomposition reaction
    c. single-replacement reaction d. double- replacement reaction
17. Which binary compound decomposes to form $K+I_2$?
    a. KI_2 b. KI c. K_2I d. none of the above
18. In order for the reaction $Cu(s) + 2AgNO3(aq) \rightarrow Cu(NO3)(aq)+2Ag(s)$ to occur, which of the following must be true?

a. Cu must be above Ag in the activity series. b. Ag must be above Cu in the activity series.
c. Cu must be above H in the activity series. d. Ag must be above H in the activity series.