Name: _____

Period: _____

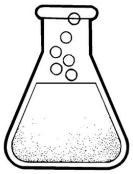
HW4:3 Conservation of Mass
Mr. Murray, IPC

Assigned: Wed., 11/8 and Thurs. , 11/9
Due: Fri., 11/10 and Mon. , 11/13

1. In the demo I did, why did I put the stopper in the flask for the second reaction?

2. Why did the stopper pop when opened?

3. Open or closed reaction?
4. Why?



5. Will mass be conserved here?

6. Find the atomic mass of:

   Helium _____ Sulfur _____

   Beryllium _____ Iodine _____

7. Do atomic masses get bigger or smaller as you go down the periodic table (from top to bottom)?
8. Do atomic masses get bigger or smaller as you go from left to right on the periodic table?

9. Find the molecular mass of BeF_2.

10. $Al_2O_3 + 3MgCl_2 \rightarrow 2AlCl_3 + 3MgO$
    (8g) (22g) (21g) (?g)
    A. Circle the second product.
    B. Name the first reactant: _____
    C. How many Chlorine atoms on the reactant side?
    D. How many total molecules on the product side?
    E. What is the total mass of the reactants?

    F. What must be the total mass of the products?
    G. How much Magnesium Oxide must have been produced?

11. Balance this ionic compound: $K^{1+}N^{3-}$: _____
12. The 1+ and 3+ are: _____.

13. Given $3CO_2$.
    A. How many molecules are there?
    B. Write it with out the coefficient (expand it to show all of the molecules):

    C. So, how many total carbon atoms?
    D. How many total oxygen atoms?
    E. How many total atoms are there?

14. **GET YOUR CONCLUSION STATEMENTS IN!!!!!**