

HONORS CHEMISTRY
WORKSHEET 6b.

Name: _____

THESE ARE ALL REVIEW PROBLEMS!

SHOW ALL WORK!

1. Calculate the molecular weight and percentage composition of sodium carbonate, Na_2CO_3
2. A compound is 92.24% C and 7.76% H. Find its empirical formula.
3. Another compound is 52.13% C, 13.15% H, and 34.72% O. Find its empirical formula.
4. How many atoms are there in
 - a.) 9.01 g of Beryllium?
 - b.) 128.12 g of SO_2 ?
5. How many moles are there in:
 - a.) 50.0 g of MgBr_2 ?
 - b.) 45.0 g of $\text{Al}(\text{OH})_3$?
6. In the reaction $2 \text{HCl} + \text{CaCO}_3 \rightarrow \text{CaCl}_2 + \text{H}_2\text{O} + \text{CO}_2$
 - a.) how many moles of HCl will it take to react fully with 120. g of CaCO_3 ?
 - b.) how many grams of HCl will it take?

CONTINUED ON THE REVERSE SIDE

7. In the reaction $\text{Na}_2\text{CO}_3 + \text{CaCl}_2 \rightarrow 2 \text{NaCl} + \text{CaCO}_3$
if I start with 12.0 g of sodium carbonate and 15.5 g of calcium chloride, how much calcium carbonate will I get? Express the answer in both moles and grams.

8. What atom has each electron configuration?

a.) $1s^2 2s^2 2p^6 3s^1$

b.) $1s^2 2s^2 2p^6 3s^2 3p^2$

9. What name is given to the elements:

a.) on the left portion of the periodic table?

b.) in the rightmost column (#8) of the table?

c.) in the column headed by the element F ?

d.) to the right side, especially in first few rows?

e.) in the middle of the table, elements 21-30 and those below them?

f.) numbered 58-71 ?