Name: Key Period: _____ Date: _____

CP Chemistry –minimal study review

True or False (make sure if you think they are false that you correct them!)

F 1. There are **more** atoms in **a mole** of Ca than in **a mole** of He. (the same # of)

F 2. The mass number of an element represents the number of g/mol for that element. (Are atomic mass)

F 3. One half mole of carbon weighs 12.0 grams. (6.0 grams)

F 4. A mole of hydrogen **weighs** 6.022×10^{23} grams. (atoms)

F 5. 12.0 grams of carbon has less atoms than 55.9 grams of iron. (The same)

F 6. A mole of oxygen (O_2) weighs the same amount as a mole of nitrogen (N_2). (32.0 g, 28.0 g)

F 7. The empirical formula is the actual number of atoms of each element in a molecule. (molecular)

F 8. The atomic number of an element represents the number of g/mol for that element. (are atomic mass)

F 9. One mole of carbon (C) weighs 14.0 grams. (12.0, # of)

F 10. 12.0 grams of carbon (C) has more atoms than 63.6 grams of copper (Cu). (the same #)

T 11. The molar mass is the mass of one mole of a substance

12. How many moles of each element are present in three moles of $Ca(NO_3)_2$? (6 points)

Ca: 3 1

N: 6 2

O: 18 6

13. Calculate the molar mass of Na_2CO_3:

Na- (2) x 23.0 = 46.0 g/mol
C (1) x 12.0 = 12.0 g/mol
O (3) x 16.0 = 48.0 g/mol
106.0 g/mol

106.0 g/mol

14. Calculate the molar mass (g/mol) of nitrogen, oxygen, fluorine, chlorine, and hydrogen gas:

N_2=	O_2=	F_2=	Cl_2=	H_2=
28.0 g/mol	32.0 g/mol	38.0 g/mol	71.0 g/mol	2.0 g/mol

Version review