

Name \_\_\_\_\_ Period \_\_\_\_\_

## College Prep Chemistry of the Earth

## Assignment 5C – The Mol - Atomic and Molar Mass

20 Points

*Answer the following questions based on the in class discussion*

Define Mol	Define Avogadro's Number

*Determine the atomic mass (amu), and molar mass (g/mol) for the following isotopes, and the average atomic mass (amu and g/mol) based on the periodic table.*

Isotope	Oxygen-16	Oxygen-17	Oxygen-18
Atomic Mass (amu)			
Molar Mass (g/mol)			
Avg Atomic Mass (g/mol, periodic table)			

Isotope	Magnesium-24	Magnesium-25	Magnesium-26
Atomic Mass (amu)			
Molar Mass (g/mol)			
Avg Atomic Mass (g/mol, periodic table)			

*Convert the following atom masses to number of particle (Avagadro's # =  $6.022 \times 10^{23}$  atoms/mol)*

Isotope	mol atoms	X	Avagadro's Number (atoms/mol)	=	Number of Atoms (atoms)
Nitrogen-14	2.30 mol N	X		=	
Magnesium-24	2.30 mol Mg	X		=	
Titanium-48	1.27mol Ti	X		=	
Selenium-80	6.27mol Se	X		=	
Calcium-41	6.27mol Ca	X		=	