

Name Selected Answers Period _____

College Prep Chemistry of the Earth

Assignment 5A – Mass of an Atom

20 Points

Answer the following questions based on the in class presentation

Define Mass Number	Define Atomic Mass Unit
Define Atomic Mass	Define Average Atomic Mass

Subatomic Particle Data Tables

Mass Proton (p^+)	Mass Neutron (n^0)	Atomic Mass Unit	Mass Number
$1.67 \times 10^{-24} \text{g}/p^+$	$1.67 \times 10^{-24} \text{g}/e^-$	$1.67 \times 10^{-24} \text{g}/\text{amu}$	$\#p^+ + \#n^0$

Complete the following chart based on the isotopes shown below $[1 \text{amu} = 1.67 \times 10^{-24} \text{g}]$

Isotope	Mass Number (amu)	X	Atomic Mass Unit (g/amu)	=	Atomic Mass (g)
Nitrogen-14 <i>Mass # ←</i>	14 amu	X	1.67×10^{-24} g/amu	=	2.338×10^{-23} g
Magnesium-24		X		=	
Titanium-48		X		=	
Selenium-80		X		=	

Isotope	Average Atomic Mass (amu)	X	Atomic Mass Unit (g/amu)	=	Atomic Mass (g)
Nitrogen	14.01 amu	X	1.67×10^{-24} g/amu	=	2.340×10^{-23} g
Magnesium		X		=	
Titanium		X		=	
Selenium		X		=	

On Calculator $\times 10 =$ EE or Exp or $\times 10^x$ Ex: 1.67 EE $-24 =$

Periodic Table

7 N 14.01

↑ Atomic Mass (amu)