

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 5B – 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
1.67x10 ⁻²⁴ g/p ⁺	1.67x10 ⁻²⁴ g/e ⁻	1.67x10 ⁻²⁴ g/amu	#p ⁺ + #n ⁰

Complete the following chart based on the isotopes shown below

Isotope	Mass Number (amu)	X	Atomic Mass Unit (g/amu)	=	Atomic Mass (g)
Nitrogen-14	14 amu	X	1.67x10 ⁻²⁴ g/amu	=	2.338x10 ⁻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	1.67x10 ⁻²⁴ g/amu	=	2.340x10 ⁻²³ g
Magnesium		X		=	
Titanium		X		=	
Selenium		X		=	

Most Calc.

$$\boxed{EE}$$

$$1.67 \boxed{EE}$$

$$24 \boxed{+/-}$$

$$\boxed{10^x}$$

$$1.67 \boxed{10^x}$$

$$\boxed{=24}$$

$$\boxed{y^x}$$

$$1.67 \times 10 \boxed{y^x} - 24$$

$$\boxed{7}$$

$$\boxed{N}$$

$$\boxed{14.01}$$

Round to 3 places after decimal
2.33967 x 10⁻²³