NAME_____DATE_____PERIOD_____

CALCULATING AVERAGE ATOMIC MASS

Example: Lithium-6 has a percent abundance of 7.42% while Lithium-7 has a percent abundance of 92.58%. Calculate the average atomic mass of lithium.

Mass (amu)	Percent Abundance (in decimal form)	Subtotal
6	0.0742	0.445
7	0.9258	6.481
Total	Average Atomic Mass	6.926

1. Calculate the average atomic mass of the three isotopes of the element Oxygen. Oxygen-16 has a percent abundance 99.76%, Oxygen-17 has a percent abundance of 0.038%, and Oxygen-18 has a percent abundance 0.20%.

Mass (amu)	Percent Abundance (in decimal form)	Subtotal
Total	Average Atomic Mass	

2. Silver found in jewelry has two naturally occurring isotopes. Silver-107 is 51.35% abundant. Silver-109 is 48.65% abundant. Calculate the atomic mass of silver.

Mass (amu)	Percent Abundance (in decimal form)	Subtotal
Total	Average Atomic Mass	

3. Copper has two naturally occurring isotopes: Copper-63 and Copper-65. The relative abundance of copper-63 is 69.17% and the atomic mass of copper-65 is 30.83%. Determine the average atomic mass for copper.

4. Calculate the average atomic mass of silicon if 92.21% of its atoms are Si-28, 4.70% are Si-29, and 3.09% are Si-30.

5. Calculate the average atomic mass of the three isotopes of Uranium. Uranium-234 (0.005%), Uranium-235 (0.720%), and Uranium-238 (99.275%).

6. Calculate the average atomic mass of the three isotopes of Argon. $^{36}{}_{18}Ar$ has a percent abundance of 0.337%. $^{37}{}_{18}Ar$ has a percent abundance of 0.036%. $^{40}{}_{18}Ar$ has percent abundance of 99.600%.