Worksheet: Isotope Problems   Name_____

1. A student looked up the naturally occurring isotopes of bromine and found the following information:

   50.54% of the naturally occurring isotopes of bromine have an atomic mass of 78.92 u while 49.46% of the naturally occurring isotopes of bromine have an atomic mass of 80.92 u.

   Calculate the average atomic mass of bromine, showing all work:

2. Using the following data, calculate the average atomic mass of magnesium (give your answer to the nearest .01 u) : *Show all work!*

   Isotope: $_{12}^{24}Mg$ Percent abundance: 78.70%

   Isotope: $_{12}^{25}Mg$ Percent abundance: 10.13%

   Isotope: $_{12}^{26}Mg$ Percent abundance: 11.17%

3. Using the periodic table,

   What is the average atomic mass of bromine? _____

   What is the average atomic mass of magnesium? _____

   How do your calculated answers in #1 and #2 compare to those on the periodic table?

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