

Atomic Mass

Name: _____

1) Samples of an unknown element X were collected and their masses were recorded. Use the information presented in the data table to answer the following questions.

Isotope	Mass (amu)	Percent Abundance	Mass Number
1	35.9675	0.3365	
2	37.9627	0.0632	
3	39.9624	99.6003	

a) Fill in the mass number for each sample of element X in the data table.

b) What is the most common isotope of element X?

c) Calculate the average atomic mass of element X.

d) Use your periodic table to identify element X based on its average atomic mass.

e) What is the atomic number of this element?

2) Samples of an unknown element Y were collected and their masses were recorded. Use the information presented in the data table to answer the following questions.

Isotope	Mass (amu)	Percent Abundance	Mass Number
1	167.9339	0.13	
2	169.9348	3.04	
3	170.9363	14.28	
4	171.9364	21.83	
5	172.9382	16.13	
6	173.9389	31.83	
7	175.9426	12.76	

a) Fill in the mass number for each sample of element Y in the data table.

b) What is the most common isotope of element Y?

c) Calculate the average atomic mass of element Y.

d) Use your periodic table to identify element Y based on its average atomic mass.

e) What is the atomic number of this element?