

## Atomic Mass

Name: \_\_\_\_\_

1) Samples of an unknown element Z 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	53.9396	5.845	
2	55.9349	91.754	
3	56.9354	2.119	
4	57.9333	0.282	

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

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

c) Calculate the average atomic mass of element Z.

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

e) What is the atomic number of this element?

2) Samples of an unknown element Q 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	183.9525	0.02	
2	185.9538	1.59	
3	186.9557	1.96	
4	187.9558	13.24	
5	188.9581	16.15	
6	189.9584	26.26	
7	191.9615	40.78	

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

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

c) Calculate the average atomic mass of element Q.

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

e) What is the atomic number of this element?

## Atomic Mass

Name: \_\_\_\_\_

1) Samples of an unknown element J 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	133.9045	2.62	
2	134.9057	6.59	
3	135.9046	7.85	
4	136.9058	11.23	
5	137.9052	71.70	

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

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

c) Calculate the average atomic mass of element J.

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

e) What is the atomic number of this element?

2) Samples of an unknown element E 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	150.9199	47.81	
2	152.9212	52.19	

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

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

c) Calculate the average atomic mass of element E.

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

e) What is the atomic number of this element?