Assessment

Chemistry: Lesson 10

Question 1

One mole of gold (MM = 197) has the same mass as one mole of carbon (MM = 12).

A. True

B. False

Question 2

Potassium's atomic number is 19 and its atomic weight is 39.1, so its molar mass is ____.

A. 19

B. 20.1

C. 39.1

D. 78.2

Question 3

Element X as a molar mass of 30, and element Y has a molar mass of 50. Which has the greater number of moles?

A. 30 g of X

B. 50 g of X

C. 30 g of Y

D. 50 g of Y

Question 4

160 g or an element with a molar mass of 40 = _____ moles?

A. 0.25

B. 4

C. 120

D. 200

Question 5

If 50 g of one element = 2.5 moles, then 50 g of every element = 2.5 moles.

A. True

B. False

Question 6

Sodium has a molar mass of 23.0 g/mol, and lead has a molar mass of 207.2 g/mol, so 3.5 moles of sodium has the same number of atoms as 3.5 moles of lead.

A. True

B. False

Question 7

Which of the following would have the higher number of atoms in a 100 g sample?

A. copper with a molar mass of 63.5 g/mol

B. calcium with a molar mass of 40.1 g/mol

C. aluminum with a molar mass of 27.0 g/mol

D. sodium with a molar mass of 23.0 g/mol

Question 8

An actual mass of 120 g of an element whose molar mass is 40 g/mol would be _____ atoms?

A. 2.007×10^{23}

B. 1.8066×10^{23}

C. 2.007×10^{24}

D. 1.8066×10^{24}

Question 9

The equation for finding the number of moles is _____.

A. $n = m/MM$

B. $m = n/MM$

C. $n = m \times MM$

D. $MM = n/m$

Question 10

How many atoms of hydrogen are in a molecule of $(NH_4)_2CO_3$?

A. 2

B. 4

C. 6

D. 8

Question 11

Avogadro's number is _____.

A. 2.066×10^{23}

B. 6.022×10^{23}

C. 6.025×10^{24}

D. 6.023×10^{22}

Question 12

In 4.5 moles of K_2S, there are _____ moles of K ions.

A. 9.0

B. 4.5

C. 13.5

D. 18.0