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Include file name: Chemistry_Worksheet_0056

Price: \$3

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1.

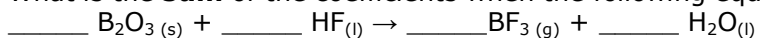
What is the molecular weight (molar mass) of calcium permanganate?

A. 216 g/mol
B. 159 g/mol
C. 287 g/mol
D. 199 g/mol

Score: 12/12

2.

What is the **sum** of the coefficients when the following equation is balanced?



A. 11
B. 8
C. 12
D. 15

3.

What is the mass of a single chlorine molecule, Cl_2

A. 70.90 g
B. 1.177×10^{-22} g
C. 5.887×10^{-23} g
D. 35.45 g

4.

How many moles are there in 1.50 g of ethanol, $\text{CH}_3\text{CH}_2\text{OH}$?

A. 0.0145 mol
B. 69.00 mol
C. 0.0326 mol
D. 30.70 mol

5.

How many moles of BCl_3 are needed to produce 25.0 g of $\text{HCl}_{(\text{aq})}$ in the following reaction?
 $\text{BCl}_{3(\text{g})} + 3 \text{H}_2\text{O}_{(\text{l})} \rightarrow 3 \text{HCl}_{(\text{aq})} + \text{B}(\text{OH})_{3(\text{aq})}$

A. 4.38 mol
B. 0.686 mol
C. 2.06 mol
D. 0.229 mol

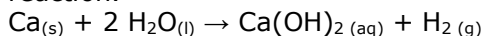
6.

How many grams of calcium chloride are needed to produce 2.50 g of potassium chloride
 $\text{CaCl}_{2(\text{aq})} + \text{K}_2\text{CO}_{3(\text{aq})} \rightarrow 2 \text{KCl}_{(\text{aq})} + \text{CaCO}_{3(\text{aq})}$

A. 3.72 g
B. 7.44 g
C. 0.537 g
D. 1.86 g

7.

When 14.0 g of calcium metal is reacted with water, 5.00 g of calcium hydroxide is produced. Using the following balanced equation, calculate the percent yield for the reaction.



A. 9.67%
B. 35.7%
C. 19.3%
D. 66.0%

8.

Which of the following has the **greatest** mass?

A. 6.02×10^{23} molecules of O_2
B. 0.500 mol of O_2
C. 16.0 g of O_2

9.

What is the identity of an unknown substance, "X", if 0.380 mol of "X" weighs 17.5 g?

A. NO_3

B. NO₂

C. N₂O₄

D. N₂O

1.

Classify each of the following changes as physical or chemical

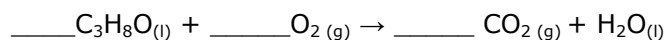
dissolving sugar in coffee

baking a cake

burning wood in a fireplace

2.

What is the coefficient for oxygen (O₂) when the following equation is balanced?



A. 3

B. 9

C. 5

D. 7

3.

Which of the following statements about balance equations is true?

A reaction is balanced by

A. changing the formula of the molecule

B. multiplying by coefficients

C. rearranging atoms in a molecule

D. changing the charge of the ion

4.

What is the molar mass of of aspartic acid, C₄O₄H₇N?

A. 197 g/mol

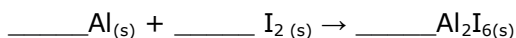
B. 43 g/mol

C. 70 g/mol

D. 133 g/mol

5.

Balance the chemical equation given below, and determine the number of moles of iodine that reacts with 10.0 g of aluminum.



A. 0.556 mol

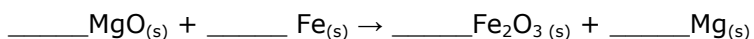
B. 0.741 mol

C. 0.247 mol

D. 1.11 mol

6.

Balance the chemical equation given below, and determine the number of grams of MgO needed to produce 15.0 g of Fe_2O_3



A. 1.26 g

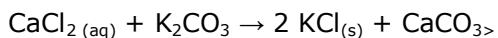
B. 3.78 g

C. 11.4 g

D. 0.0877 g

7.

How many grams of calcium chloride are needed to produce 10.0 g of potassium chloride?



A. 14.9 g

B. 0.134 g

C. 29.8 g

D. 7.44 g

1.

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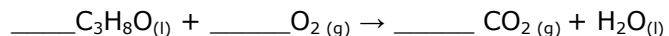
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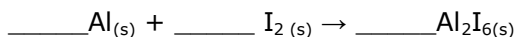
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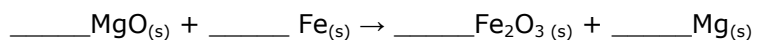
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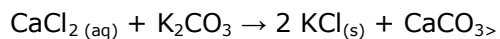
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Score: 2/2

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