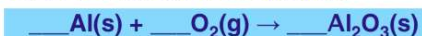




Name _____ Class _____ Date _____

1

Given the unbalanced equation:


 When this equation is correctly balanced using *smallest* whole numbers, what is the **coefficient** of $\text{O}_2\text{(g)}$?

- A** 6 **C** 3
B 2 **D** 4

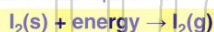
2

 Which **chemical equation** is **correctly** balanced?

- A** $\text{H}_2\text{(g)} + \text{O}_2\text{(g)} \rightarrow \text{H}_2\text{O(g)}$
B $\text{N}_2\text{(g)} + \text{H}_2\text{(g)} \rightarrow \text{NH}_3\text{(g)}$
C $2\text{NaCl(s)} \rightarrow \text{Na(s)} + \text{Cl}_2\text{(g)}$
D $2\text{KCl(s)} \rightarrow 2\text{K(s)} + \text{Cl}_2\text{(g)}$

3

Given the balanced equation:


 As a sample of $\text{I}_2\text{(s)}$ sublimates to $\text{I}_2\text{(g)}$, the entropy of the sample

- A** increases because the particles are less randomly arranged
B increases because the particles are more randomly arranged
C decreases because the particles are less

4

Given the balanced equation:


 What is the **total number of moles of C** that must completely react to produce **2.0 moles of C_2H_6** ?

- A** 1.0 mol **C** 3.0 mol

5


PREVIEW

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7

- A** addition
B esterification
C fermentation
D substitution

 _____(s), produced when 5 moles of $\text{H}_2\text{(g)}$, is completely consumed?

- A** 5 moles **C** 3 moles
B 2 moles **D** 6 moles

9

Given the balanced equation:


 What is the total number of liters of $\text{CO}_2\text{(g)}$ **produced** when 20.0 liters of $\text{O}_2\text{(g)}$ are completely consumed?

- A** 12.0 L **C** 3.00 L
B 22.4 L **D** 5.00 L

10

Given the balanced equation:

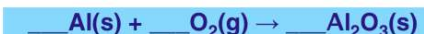

 What **total mass of iron** is necessary to produce **1.00 mole of copper**?

- A** 26.0 g **C** 112 g
B 55.8 g **D** 192 g



ANSWER KEY

Given the unbalanced equation:



When this equation is correctly balanced using *smallest* whole numbers, what is the **coefficient** of $\text{O}_2\text{(g)}$?

- A** 6 **C** 3
B 2 **D** 4

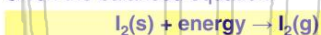
(c)

Which **chemical equation** is **correctly** balanced?

- A** $\text{H}_2\text{(g)} + \text{O}_2\text{(g)} \rightarrow \text{H}_2\text{O(g)}$
B $\text{N}_2\text{(g)} + \text{H}_2\text{(g)} \rightarrow \text{NH}_3\text{(g)}$
C $2\text{NaCl(s)} \rightarrow \text{Na(s)} + \text{Cl}_2\text{(g)}$
D $2\text{KCl(s)} \rightarrow 2\text{K(s)} + \text{Cl}_2\text{(g)}$

(d)

Given the balanced equation:



As a sample of $\text{I}_2\text{(s)}$ sublimates to $\text{I}_2\text{(g)}$, the entropy of the sample

- A** increases because the particles are less randomly arranged
B increases because the particles are more randomly arranged
C decreases because the particles are less randomly arranged

(b)

Given the balanced equation:



What is the **total number of moles of C** that must completely react to produce **2.0 moles of C_2H_6** ?

- A** 1.0 mol **C** 3.0 mol
B 2.0 mol **D** 4.0 mol

(d)



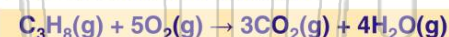
PREVIEW

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- B** esterification
C fermentation
D substitution

- A** 5 moles **C** 3 moles
B 2 moles **D** 6 moles

Given the balanced equation:



What is the total number of liters of $\text{CO}_2\text{(g)}$ **produced** when 20.0 liters of $\text{O}_2\text{(g)}$ are completely consumed?

- A** 12.0 L **C** 3.00 L
B 22.4 L **D** 5.00 L

(a)

Given the balanced equation:



What **total mass of iron** is necessary to produce **1.00 mole of copper**?

- A** 26.0 g **C** 112 g
B 55.8 g **D** 192 g

(b)