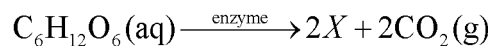


## Balancing Equations (2)

\_\_\_\_(1) Which equation shows a conservation of mass?

- A)  $\text{Na} + \text{Cl}_2 \rightarrow \text{NaCl}$       C)  $\text{H}_2\text{O} \rightarrow \text{H}_2 + \text{O}_2$   
B)  $\text{Al} + \text{Br}_2 \rightarrow \text{AlBr}_3$       D)  $\text{PCl}_5 \rightarrow \text{PCl}_3 + \text{Cl}_2$

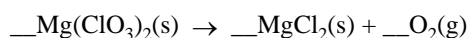
\_\_\_\_(2) Given the balanced equation with an unknown compound represented by X:



Which compound is represented by X?

- A)  $\text{CH}_3\text{OH}(\text{aq})$   
B)  $\text{CH}_2(\text{OH})_4(\text{aq})$   
C)  $\text{CH}_3\text{CH}_2\text{OH}(\text{aq})$   
D)  $\text{CH}_2\text{OHCH}_2\text{OH}(\text{aq})$

\_\_\_\_(3) Given the unbalanced equation:



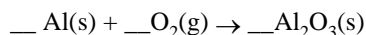
What is the coefficient of  $\text{O}_2$  when the equation is balanced correctly using the *smallest* whole number coefficients?

- A) 1                                  C) 3  
B) 2                                  D) 4

\_\_\_\_(4) Which equation is correctly balanced?

- A)  $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$   
B)  $\text{Ca} + \text{Cl}_2 \rightarrow \text{CaCl}$   
C)  $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$   
D)  $\text{Ca} + \text{Cl}_2 \rightarrow \text{Ca}_2\text{Cl}$

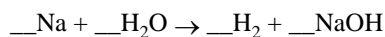
\_\_\_\_(5) Given the unbalanced equation:



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

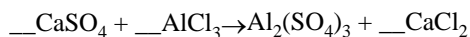
\_\_\_\_(6) Given the unbalanced equation:



When the equation is correctly balanced using the smallest whole-number coefficients, the coefficient for  $\text{H}_2\text{O}$  is

- A) 1                                  C) 3  
B) 2                                  D) 4

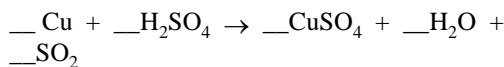
\_\_\_\_(7) Given the unbalanced equation:



What is the coefficient of  $\text{Al}_2(\text{SO}_4)_3$  when the equation is completely balanced using the smallest whole-number coefficients?

- A) 1                                  C) 3  
B) 2                                  D) 4

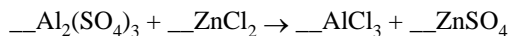
\_\_\_\_(8) When the equation



is correctly balanced, what is the coefficient of  $\text{CuSO}_4$ ?

- A) 1                                  C) 3  
B) 2                                  D) 4

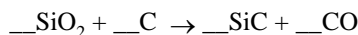
\_\_\_\_(9) When the equation



is correctly balanced using the smallest whole number coefficients, the sum of the coefficients is

- A) 9                                  C) 5  
B) 8                                  D) 4

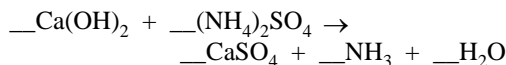
\_\_\_\_(10) When the equation



is correctly balanced using whole-number coefficients, the sum of all the coefficients is

- A) 6                                  C) 8  
B) 7                                  D) 9

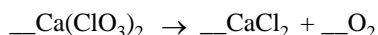
\_\_\_\_(11) Given the unbalanced equation:



What is the sum of the coefficients when the equation is completely balanced using the smallest whole number coefficients?

- A) 5                                  C) 9  
B) 7                                  D) 11

\_\_\_\_(12) When the equation



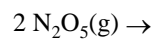
is correctly balanced, the coefficient in front of the  $\text{O}_2$  will be

- A) 1                                  C) 3  
B) 2                                  D) 4

## Balancing Equations

(2)

\_\_\_\_(13) Given the incomplete equation:



Which set of products completes and balances the incomplete equation?

- A)  $2 \text{N}_2(\text{g}) + 3 \text{H}_2(\text{g})$
- B)  $2 \text{N}_2(\text{g}) + 2 \text{O}_2(\text{g})$
- C)  $4 \text{NO}_2(\text{g}) + \text{O}_2(\text{g})$
- D)  $4 \text{NO}(\text{g}) + \text{SO}_2(\text{g})$