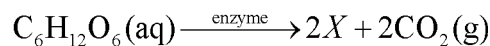


Balancing Equations (2)

____(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) $\text{PCl}_5 \rightarrow \text{PCl}_3 + \text{Cl}_2$

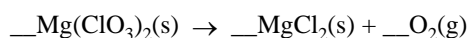
____(2) Given the balanced equation with an unknown compound represented by X:



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:



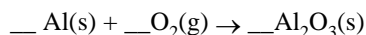
What is the coefficient of O_2 when the equation is balanced correctly using the *smallest* whole number coefficients?

- 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) $\text{Ca} + \text{Cl}_2 \rightarrow \text{Ca}_2\text{Cl}$

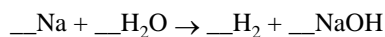
____(5) Given the unbalanced equation:



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

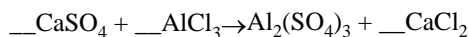
____(6) Given the unbalanced equation:



When the equation is correctly balanced using the smallest whole-number coefficients, the coefficient for H_2O is

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

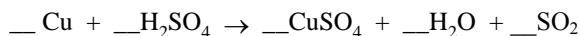
____(7) Given the unbalanced equation:



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

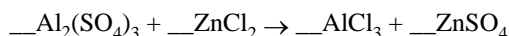
____(8) When the equation



is correctly balanced, what is the coefficient of CuSO_4 ?

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

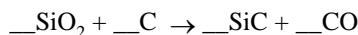
____(9) When the equation



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

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

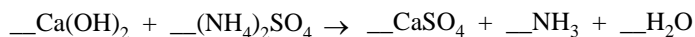
____(10) When the equation



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

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

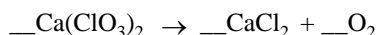
____(11) Given the unbalanced equation:



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



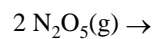
is correctly balanced, the coefficient in front of the O_2 will be

- 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) $4 \text{NO}(\text{g}) + \text{SO}_2(\text{g})$