Balancing Chemical Equations

Activity 1 Question Group 1 Question 1

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $AI + Br_2 \rightarrow AIBr_3$

Question 2

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $Re \ + \ Br_2 \ \rightarrow \ ReBr_3$

Question Group 2 Question 3

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $AI \ + \ N_2 \ \rightarrow \ AIN$

Question 4

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $Fe \ + \ N_2 \ \rightarrow \ FeN$

Question Group 3 Question 5

Identify the lowest possible whole number coefficients that balance the chemical equation.

Na + $O_2 \rightarrow Na_2O$

Question 6

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $Li \ + \ O_2 \ \rightarrow \ Li_2O$

Question Group 4 Question 7

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $Na \ + \ Cl_2 \ \rightarrow \ NaCl$

Question 8

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $Na \ + \ Br_2 \ \rightarrow \ NaBr$

Question Group 5 Question 9

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $MnI_3 \rightarrow Mn + I_2$

Question 10

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $Pal_5 \rightarrow Pa + l_2$

Question Group 6 Question 11

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $C_3H_8 \hspace{.1in} + \hspace{.1in} O_2 \hspace{.1in} \rightarrow \hspace{.1in} CO_2 \hspace{.1in} + \hspace{.1in} H_2O$

Question 12

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $CH_4 \hspace{.1in} + \hspace{.1in} O_2 \hspace{.1in} \rightarrow \hspace{.1in} CO_2 \hspace{.1in} + \hspace{.1in} H_2O$

Activity 2 Question Group 7 Question 13

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $N_2 \ + \ H_2 \ \rightarrow \ NH_3$

Question 14

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

Question Group 8 Question 15

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $Mg + O_2 \rightarrow MgO$

Question 16

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $Ca + O_2 \rightarrow CaO$

Question Group 9 Question 17

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $Zn(OH)_2$ + $H_3PO4 \rightarrow Zn_3(PO_4)_2$ + H_2O

Question 18

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $Cu(OH)_2 \ + \ H_3PO_4 \ \rightarrow \ Cu_3(PO_4)_2 \ + \ H_2O$

Question Group 10 Question 19

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $P + H_2O \rightarrow PH_3 + H_3PO_3$

Question 20

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $Sb \ + \ H_2O \ \rightarrow \ Sb_2O_3 \ + \ H_2$

Question Group 11 Question 21

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $C_2H_6 \hspace{.1in} + \hspace{.1in} O_2 \hspace{.1in} \rightarrow \hspace{.1in} CO_2 \hspace{.1in} + \hspace{.1in} H_2O$

Question 22

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $C_4H_{10} \hspace{.1in} + \hspace{.1in} O_2 \hspace{.1in} \rightarrow \hspace{.1in} CO_2 \hspace{.1in} + \hspace{.1in} H_2O$

Question Group 12 Question 23

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $AI \ + \ AuCI \ \rightarrow \ AICI_3 \ + \ Au$

Question 24

Identify the lowest possible whole number coefficients that balance the chemical equation. Then conduct an atom count for each element.

 $\mathsf{AI} \ + \ \mathsf{AgCI} \ \rightarrow \ \mathsf{AlCI}_3 \ + \ \mathsf{Ag}$

Activity 3 Question Group 13 Question 25

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $AI + ZnSO_4 \rightarrow Al_2(SO_4)_3 + Zn$

Question 26

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $AI + CuSO_4 \rightarrow AI_2(SO_4)_3 + Cu$

Question Group 14 Question 27

Identify the lowest possible whole number coefficients that balance the chemical equation.

 H_2 + $Fe_2O_3 \rightarrow Fe$ + H_2O

Question 28

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $\label{eq:alpha} \begin{array}{rcl} \mathsf{AI} & + & \mathsf{CuCI}_2 & \rightarrow & \mathsf{AICI}_3 & + & \mathsf{Cu} \end{array}$

Question Group 15 Question 29

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $CH_{3}OH \hspace{.1in} + \hspace{.1in} O_{2} \hspace{.1in} \rightarrow \hspace{.1in} CO_{2} \hspace{.1in} + \hspace{.1in} H_{2}O$

Question 30

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $C_2H_5OH \ + \ O_2 \ \rightarrow \ CO_2 \ + \ H_2O$

Question Group 16 Question 31

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $AI(OH)_3 \rightarrow AI_2O_3 + H_2O$

Question 32

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $P_2O_5 \ + \ H_2O \ \rightarrow \ H_3PO_4$

Question Group 17 Question 33

Identify the lowest possible whole number coefficients that balance the chemical equation.

 Fe_2O_3 + $CO \rightarrow Fe$ + CO_2

Question 34

Identify the lowest possible whole number coefficients that balance the chemical equation.

 SiO_2 + C \rightarrow SiC + CO

Question Group 18 Question 35

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $Ba(OH)_2 + CO_2 \rightarrow BaCO_3 + H_2O$

Question 36

Identify the lowest possible whole number coefficients that balance the chemical equation.

 $Ca(OH)_2 \quad + \quad CO_2 \rightarrow CaCO_3 \quad + \quad H_2O$