1161. Which equation illustrates conservation of mass?			866. When the equation		
	$H_2 + Cl_2 \rightarrow HCl$	(3) $H_2 + O_2 \rightarrow H_2O$	$Fe_2O_3(s) + CO(g) \rightarrow Fe(l) + CO_2(g)$ is correctly balanced using the smallest whole numbers, the		) <sub>2</sub> (g)
(1)	$H_2 + Cl_2 \rightarrow 2HCl$	$(4) H2 + O2 \rightarrow 2H2O$			iole numbers, me
(2)	112 1 012 72222	(1) 1-2 2 1	coefficient of Fe		
4422.	What is conserved during a	chemical reaction?	(1) 1	(3) 3	
	energy, only	(3) both matter and energy	(2) 2	(4) 4	
	matter, only	(4) neither matter nor	1076 When the on	-notion	
(2)		energy	1276. When the eq	$O_2 \rightarrow CO_2 + H_2$	0
			is correctly bala	nced, the coefficient in fro	ont of O <sub>2</sub> will be
5402.	All chemical reactions have		(1) 7	(3) 3	
(1)	mass, only	(3) charge and energy,	(2) 10	(4) 4	
		only	(2) 10	<b>(</b> -)	
(2)	mass and charge, only	(4) mass, charge, and	1384. When the ed	quation	
		energy	H <sub>2</sub> +_	$N_2 \rightarrow NH_3$	
10	TTT 4 - motion		is completely ba	lanced using smallest who	ole numbers, the
13.	When the equation	+ H <sub>-</sub> O	sum of all the co	efficients will be	
iec	$NH_3 + O_2 \rightarrow HNO$ ompletely balanced using so	nallest whole numbers, the	(1) 6	(3) 3	
	fficient of O <sub>2</sub> would be		(2) 7	(4) 12	
(1)	=	(3) 3			
(2)		(4) 4	1606. Given the u	nbalanced equation:	) + CaSO.
(2)	L		Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> T	$Ca(OH)_2 \rightarrow Al(OH)_2$	O, when the
159. When the equation			What is the coefficient in front of the CaSO <sub>4</sub> when the equation is completely balanced with the smallest		
	$NH_1 + O_2 \rightarrow N_2$	+ _H <sub>2</sub> O	whole-number coefficients?		
is completely balanced using the smallest whole numbers,			(1) 1	(3) 3	
the coefficient of the O <sub>2</sub> will be			(2) 2	(4) 4	
(1)	1	(3) 3	(2) 2	(.)	
(2)	2	(4) 4	1657. When the e	quation	
			$H_0O_0 \rightarrow H_0O + O_0$		
244. When the equation			is completely be	alanced, the sum of all the	coefficients will be
$Al(s) + Q_2(g) \rightarrow Al_2O_3(s)$ is correctly balanced using the smallest whole numbers, the			(1) 5	(3) 3	
	efficient of Al(s) is	,	(2) 8	(4) 4	
(1)		(3) 3			
		(4) 4	1844. Given the t	inbalanced equation:	CO (a)
(2)	2	(.)	C <sub>3</sub> H <sub>8</sub> (g) +	$O_2(g) \rightarrow H_2O(g) + $ tion is completely balance	00 <sub>2</sub> (5) d using smallest
530. Given the unbalanced equation:				, the coefficient of $O_2$ is	
	$Li + N_2 \rightarrow Li_3$	N	1	(3) 3	
W	hen the equation is correctly	balanced using smallest	(1) 5	(4) 10	
whole numbers, the coefficient of the lithium is			(2) 2	(4) 10	
(1)	) 1	(3) 3	2010. Given the	unbalanced equation:	
(2)	) 2	(4) 6	Al(OH) <sub>a</sub> +	$H_2SO_4 \rightarrow Al_2(SO_4)_3 + H_2$	<sub>2</sub> O
			What is the coe	efficient in front of the H <sub>2</sub>	) when the equation
708. When the equation			is completely b	alanced using the smalles	t whole number
	$Ca(ClO_3)_2 \rightarrow Ca(ClO_3)_2$	$\omega_2 = \omega_2$ Scient in front of the $\Omega$ will be	coefficients?	/A\ A	
		ficient in front of the O <sub>2</sub> will be	(1) 6	(3) 3	
	) 1	(3) 3	(2) 2	(4) 4	
(2	) 2	(4) 4			

2077. Given the unb	palanced equation:	3964. Given the unbalai		
Ca(OH) <sub>2</sub> +(	$(NH_4)_2SO_4 \rightarrow \_CaSO_4 + \_NH_3 +$	$\frac{N_2(g) + \dots O_2(g) \rightarrow \dots N_2O_5(g)}{\text{When the equation is balanced using smallest whole}}$		
$H_2O$		numbers, the coefficient of $N_2(g)$ will be		
What is the sum of	f the coefficients when the equation is	(1) 1	(3) 5	
completely balance	ed using the smallest whole number		(4) 4	
	(3) 9	(2) 2	(4) 4	
(1) 5	1.7	4755. Given the unbalar	nced equation:	
(2) 7	(4) 11		$\rightarrow \underline{MgCl_2(s) + \underline{O_2(g)}}$	
2186. Given the unb	valanced equation:	What is the coefficient	t of O <sub>2</sub> when the equation is balanced	
2180. Given the tille	$Ca(OH)_2 \rightarrow Al(OH)_3 + CaSO_4$	correctly using the sm	allest whole number coefficients?	
When the equation	is completely balanced using the smallest	(1) 1	(3) 3	
whole number coe	fficients the sum of the coefficients is	(2) 2	(4) 4	
(1) 5	(3) 3			
(2) 9	(4) 4	4942. If an equation is l	balanced properly, both sides of the	
(2)	· ·	equation must have th		
2532. When the equ	ation	(1) atoms	(3) molecules	
	$C \rightarrow \_SiC + \_CO$	(2) coefficients	(4) moles of molecules	
is correctly balance	ed using whole-number coefficients, the	. ,		
sum of all the coef		184. Given the balance		
(1) 6	(3) 8	$2Na + 2H_2O -$	$\rightarrow 2X + H_2$	
(2) 7	(4) 9	what is the correct for the letter X?	rmula for the product represented by	
2803. When the equ	agtion	(1) NaO	(3) NaOH	
A1 (SO.). +	$Z_nCl_a \rightarrow AlCl_a + Z_nSO_4$	(2) Na <sub>2</sub> O	(4) Na <sub>2</sub> OH	
is correctly balance	sed using the smallest whole number	(2) 1442	(*) 22	
coefficients, the st	um of the coefficients is	3346. Given the incomp	plete equation:	
(1) 9	(3) 5	$2N_2O_5(g) \rightarrow$		
(2) 8	(4) 4	Which set of products completes and balances the incomplete equation?		
2072 When the on	action	(1) $2N_2(g) + 3H_2(g)$		
$3072$ . When the equation $N_2(s) + H_1(s)$	O(l) NaOH(aq) + H <sub>2</sub> (g)	$(1) 2N_2(g) + 3N_2(g)$ $(2) 2N_2(g) + 2O_2(g)$	_	
is correctly balance	ced using smallest whole numbers, the	$(2) 2N_2(g) + 2O_2(g)$	(4) 4110(g) · BO <sub>2</sub> (g)	
coefficient of the		4517. $N_2(g) + 3H_2(g) \leftrightarrow 2NH_3(g)$		
(1) 1	(3) 3	What type of reaction	is shown above?	
(2) 2	(4) 4	(1) synthesis	(3) single replacement	
(2) 2		(2) decomposition	(4) double replacement	
3185. Given the eq	uation:	(2) 2333_1	-	
FeCl <sub>2</sub> +Na <sub>2</sub> G	$CO_3 \rightarrow \_FeCO_3 + \_NaC1$	4518. 2CO(g) +	$O_2(g) \leftrightarrow 2CO_2(g)$	
When the equation	n is correctly balanced using the smallest	What type of reaction		
whole numbers, t	he coefficient of NaCl is	(1) synthesis	(3) single replacement	
(1) 6	(3) 3	(2) decomposition	(4) double replacement	
(2) 2	(4) 4		- 43	
		4519. 2SO <sub>3</sub> (g) ←	$\Rightarrow$ 2SO <sub>2</sub> (g) + O <sub>2</sub> (g)	
3515. Given the un	balanced equation:	What type of reaction		
NaOH + H	$I_3PO_4 \rightarrow Na_3PO_4 + H_2O$ on is correctly balanced, the coefficient of H	(1) synthesis	(3) single replacement	
O will be	in to the state of	(2) decomposition	(4) double replacement	
(1) 1	(3) 3	4501 35.45 10	UClear MaCl (ag) ± U (g)	
(2) 2	(4) 4	4521. Mg(s) + 21 What type of reaction	$HCl(aq) \leftrightarrow MgCl_2(aq) + H_2(g)$ n is shown above?	
• •		**	(3) single replacement	
		(1) synthesis	(4) double replacement	
		(2) decomposition	(4) double repracement	

4523. 2NH <sub>3</sub> (g) ↔ N What type of reaction is sh	$N_2(g) + 3H_2(g)$ nown above?							
(1) synthesis	(3) single replacement							
(2) decomposition	(4) double replacement							
4527. $F_2(g) + CaBr_2(g) = CaF_2(g) + Br_2(g)$								
What type of reaction is shown above?  (1) synthesis  (3) single replacement								
(1) synthesis	(4) double replacement							
(2) decomposition	(4) touble replacement							
4528. Cu(s) + 2HCl(aq) $\leftrightarrow$ CuCl <sub>2</sub> (aq) + H <sub>2</sub> (g) What type of reaction is shown above?								
(1) synthesis	(3) single replacement							
(2) decomposition	(4) double replacement							
5195. Which equation represents a double replacement reaction?								
(1) $2 \text{ Na} + 2\text{H}_2\text{O} \rightarrow 2\text{Na}$	OH + H <sub>2</sub>							
(2) $CaCO_3 \rightarrow CaO + CO$	2							
(3) LiOH + HCl → LiCl	+ H <sub>2</sub> O							
$(4) CH_4 + 2O_2 \rightarrow CO_2 +$	2H <sub>2</sub> O							
4516. Ba(NO <sub>3</sub> ) <sub>2</sub> (aq) + Na <sub>2</sub> SO <sub>4</sub> (aq) $\rightarrow$ 2NaNO <sub>3</sub> (aq) + BaSO <sub>4</sub> (s) What								
type of reaction is shown	above?							
(1) synthesis	(3) single replacement							
(2) decomposition	(4) double replacement							
4614. Given the unbalanced equation: C <sub>2</sub> H <sub>6</sub> +O <sub>2</sub> →CO <sub>2</sub> +H <sub>2</sub> O  Balance the equation using smallest whole number coefficients.								
4617. Given the unbalanced equation: Al(OH) <sub>3</sub> +H <sub>2</sub> SO <sub>4</sub> →Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> +H <sub>2</sub> O  Balance the equation using smallest whole number coefficients.								
4613. Given the unbalanced equation: Fe <sub>2</sub> O <sub>3</sub> (s) +CO(g) →Fe(l) +CO <sub>2</sub> (g)  Balance the equation using smallest whole number coefficients.								
4612. Given the unbalanced equation: Ca(ClO <sub>3</sub> ) <sub>2</sub> →CaCl <sub>2</sub> +O <sub>2</sub> balance the equation using smallest whole number coefficients.								
4609. Given the unbalanced equ	uation:							
$NH_3 + O_2 \rightarrow $ balance the equation usin coefficients.	HNO <sub>3</sub> + H <sub>2</sub> O  g the smallest whole number							

Base your answers to questions 5362 through 5361 on the balanced chemical equation below.

$$2 H_2O \rightarrow 2 H_2 + O_2$$

5362. How does the balanced chemical equation show the Law of Conservation of Mass?

5361. What type of reaction does this equation represent?

5280. Base your answer to the following question on the unbalanced equation provided:

$$\underline{\hspace{1cm}} C_5H_{12}(g) + \underline{\hspace{1cm}} O_2(g) \to \underline{\hspace{1cm}} CO_2(g) + \underline{\hspace{1cm}} H_2O(g)$$

Balance the equation using the smallest whole-number coefficients.