Oct 9, 2019

answers balancing equations WS more practice balancing equations

Quiz on Balancing Equations Tomorrow!!!

## Physical Science 10 Balancing Equations

Balance each of the following equations. Once you have balanced the equations name each of the chemical formulas involved in the reaction.

1. \_\_\_\_ Ca(OH)<sub>2</sub> + \_\_2 HCl 
$$\rightarrow$$
 \_\_\_\_ CaCl<sub>2</sub> + \_\_2 H<sub>2</sub>C

2. 
$$\underline{2}$$
 KHCO<sub>3</sub>  $\rightarrow$   $\underline{\phantom{a}}$  K<sub>2</sub>CO<sub>3</sub> +  $\underline{\phantom{a}}$  H<sub>2</sub>O +  $\underline{\phantom{a}}$  CO<sub>2</sub>

3. 
$$\underline{2}$$
 Fe +  $\underline{6}$  HCl  $\rightarrow$   $\underline{2}$  FeCl<sub>3</sub> +  $\underline{3}$  H<sub>2</sub>

4. 
$$P_4 + \underline{6} F_2 \rightarrow \underline{4} PF_3$$

5. 
$$Cu + \underline{4} \quad HNO_3 \rightarrow Cu(NO_3)_2 + \underline{2} \quad NO_2 + \underline{2} \quad H_2O$$

6. 
$$\underline{2}$$
 Na +  $ZnI_2 \rightarrow \underline{2}$  NaI +  $Zn$ 

7. 2 BN + 3 
$$F_2 \rightarrow$$
 2 BF<sub>3</sub> +  $N_2$ 

8. \_\_\_\_H<sub>3</sub>PO<sub>4</sub> + \_\_3 NaOH 
$$\rightarrow$$
 \_\_\_\_Na<sub>3</sub>PO<sub>4</sub> + \_\_3 H<sub>2</sub>O

9. 
$$\underline{2}$$
 NaHCO<sub>3</sub> +  $\underline{H}_2$ SO<sub>4</sub>  $\rightarrow$   $\underline{Na}_2$ SO<sub>4</sub> +  $\underline{2}$   $\underline{H}_2$ O +  $\underline{2}$  CO<sub>2</sub>

10. 
$$Al_2O_3 + 3 H_2SO_4 \rightarrow 3 H_2O + Al_2(SO_4)_3$$

11. 
$$\underline{2}$$
 Na +  $\underline{2}$  H<sub>2</sub>O  $\rightarrow$   $\underline{2}$  NaOH +  $\underline{H_2}$ 

12. BaCl<sub>2</sub> + 
$$\frac{2}{2}$$
 H<sub>2</sub>O + Ag<sub>2</sub>O  $\rightarrow$   $\frac{2}{2}$  AgCl + Ba(OH)<sub>2</sub> + H<sub>2</sub>O

13. 
$$\underline{2}$$
 NF<sub>3</sub> +  $\underline{3}$  H<sub>2</sub>  $\rightarrow$  N<sub>2</sub> +  $\underline{6}$  HF

14. 
$$CaCO_3 + 2 HCl \rightarrow CO_2 + CaCl_2 + H_2O$$

15. \_\_\_BCl<sub>3</sub> + \_\_3\_H<sub>2</sub>O 
$$\rightarrow$$
 \_\_\_B(OH)<sub>3</sub> + \_\_3\_HCl

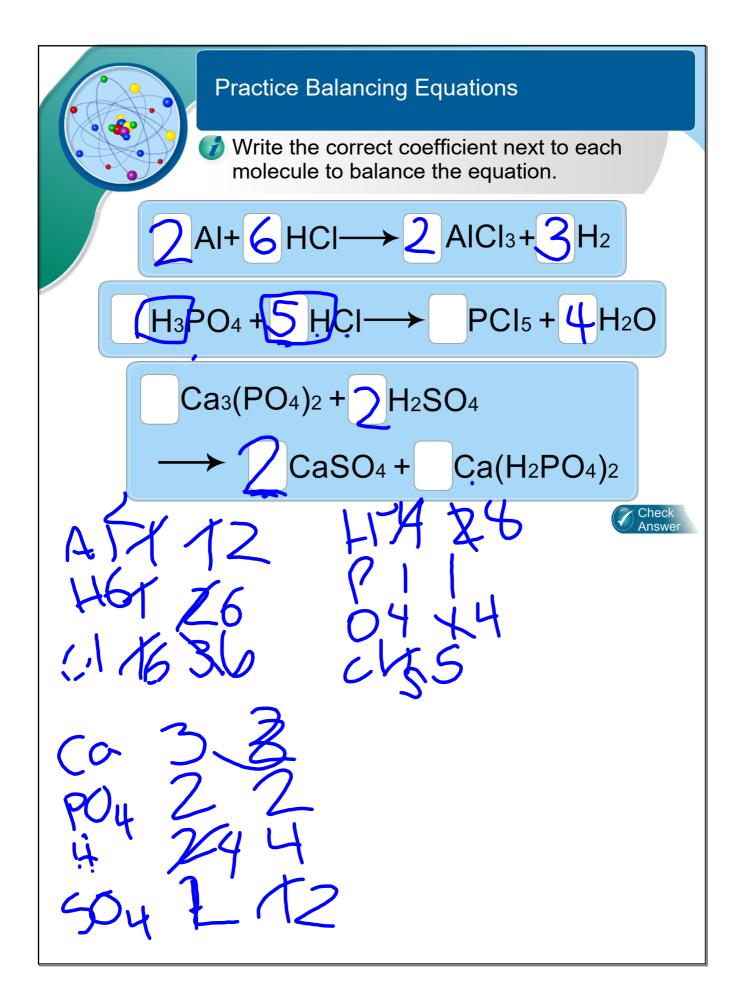
16. 
$$CoCl_2 + H_2O + SOCl_2 \rightarrow CoCl_2 + SO_2 + H_2O + H_2O$$

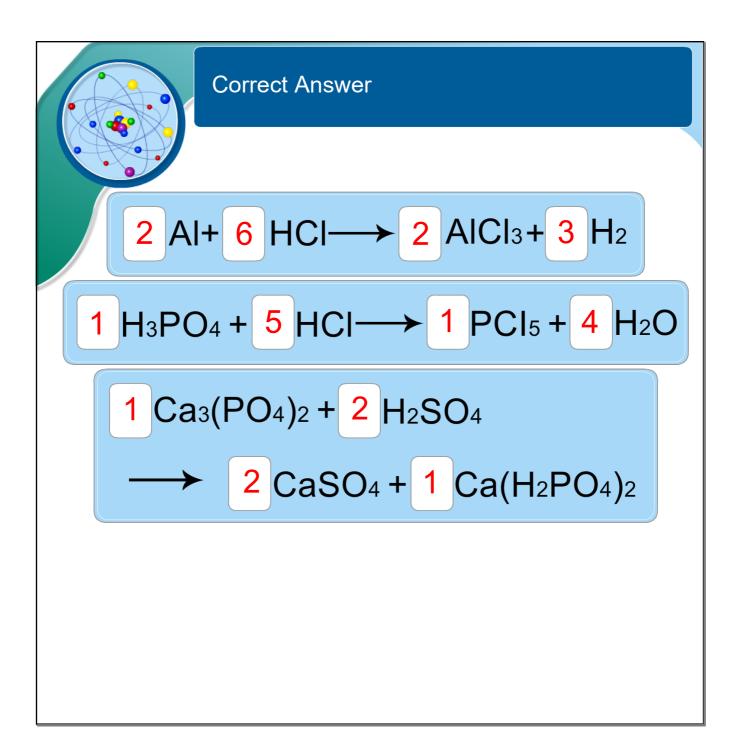
17. 
$$\underline{\hspace{0.1cm}}$$
 CaH<sub>2</sub> +  $\underline{\hspace{0.1cm}}$  H<sub>2</sub>O  $\rightarrow$   $\underline{\hspace{0.1cm}}$  H<sub>2</sub> +  $\underline{\hspace{0.1cm}}$  Ca(OH)<sub>2</sub>

18. 
$$XeF_6 + \underline{3} \quad H_2O \rightarrow XeO_3 + \underline{6} \quad HF$$

19. 
$$\underline{2}$$
 Mg + O<sub>2</sub>  $\rightarrow$   $\underline{2}$  MgO

20. 
$$\underline{3}$$
  $H_2 + N_2 \rightarrow \underline{2}$   $NH_3$ 





## Extra Practice Balancing Equations WS's

- \*Remember you can only add co-efficient's
- \* Balance the easy atoms first (those that only appear once on each side of the equation)
- \* Keep poly-atomics that stay together together.
- \* Keep oxygen till the end (if there is an odd number of oxygen after you have balanced everything else put the odd number in front of the O<sub>2</sub> that is alone and double the remaining numbers)
- \* If you have an OH on one side and an H<sub>2</sub>O on the other you can re-write the H<sub>2</sub>O as HOH and keep the polyatomic together.

Quiz Tomorrow! Make sure you ask questions if you do not understand!!!