

WKS
Balancing Equations

NAME Answer Key
Period _____ Date _____

- 1) Why is it important that a chemical equation be balanced?
Because mass must be conserved, so the numbers of atoms of all elements must be equal on both sides of the equation.
- 2) When balancing a chemical equation, can you adjust the number that is subscripted to a substance formula? Explain your answer.
No. Doing so changes the identity of the chemical involved in the reaction.

3) Write skeleton equations for the following word equations, then balance them.

a. hydrogen(g) + bromine(g) → hydrogen bromide(g)



b. carbon monoxide(g) + oxygen(g) → carbon dioxide(g)



c. potassium chlorate(s) → potassium chloride(s) + oxygen(g)



d. In water, iron(III) chloride reacts with sodium hydroxide, producing solid iron(III) hydroxide and aqueous sodium chloride.



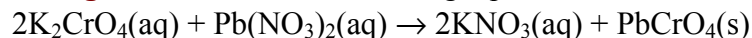
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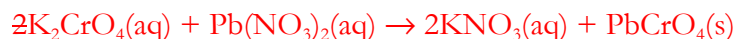
e. Solid zinc and aqueous sulfuric acid react to produce hydrogen gas and aqueous zinc sulfate.



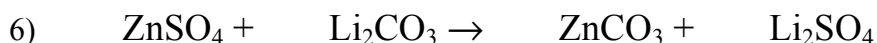
4) **Using Numbers** Is the following equation balanced? If not, correct the coefficients.

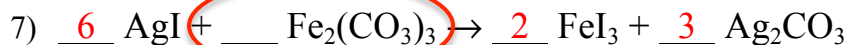


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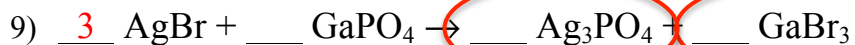
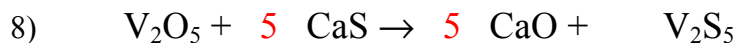


Balance the following equations:



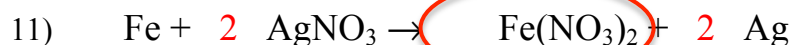


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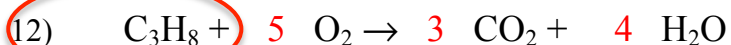


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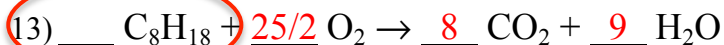


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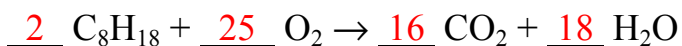


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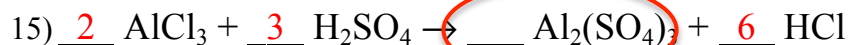
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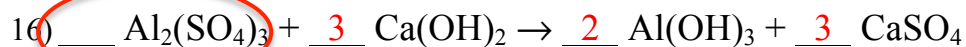
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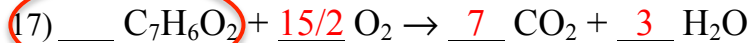


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