

Name:

Write the formulas in the chemical reaction and **balance**.

1) Liquid water breaks down into hydrogen and oxygen gas.

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2) Sodium bromide and chlorine gas react to form sodium chloride and bromine gas.

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3) Sodium phosphate and calcium chloride react to form calcium phosphate and sodium chloride.

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4) Sodium metal and oxygen gas combine to form sodium oxide.

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5) Magnesium and hydrochloric acid react to form magnesium chloride and hydrogen gas.

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6) Calcium hydroxide and phosphoric acid react to form calcium phosphate and water.

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7) Ethane ( $C_2H_6$ ) burns in oxygen gas to produce carbon dioxide and water.

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8) Zinc and lead (II) nitrate react to form zinc nitrate and lead.

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9) Solid dinitrogen pentoxide is added to water to produce nitric acid.

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10) Solid ammonium carbonate is heated to produce ammonia, water, and carbon dioxide gas.

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- Balance the reaction with the lowest reduced coefficients in the spaces provided.
- Indicate the type of reaction – Combination – C, Decomposition – D, Single Replacement – SR, Double Replacement – DR, Combustion – Combust.

	Type of Reaction
1) $\underline{\quad} \text{N}_2 + \underline{\quad} \text{H}_2 \rightarrow \underline{\quad} \text{NH}_3$	_____
2) $\underline{\quad} \text{KClO}_3 \rightarrow \underline{\quad} \text{KCl} + \underline{\quad} \text{O}_2$	_____
3) $\underline{\quad} \text{NaCl} + \underline{\quad} \text{F}_2 \rightarrow \underline{\quad} \text{NaF} + \underline{\quad} \text{Cl}_2$	_____
4) $\underline{\quad} \text{H}_2 + \underline{\quad} \text{O}_2 \rightarrow \underline{\quad} \text{H}_2\text{O}$	_____
5) $\underline{\quad} \text{Pb}(\text{OH})_2 + \underline{\quad} \text{HCl} \rightarrow \underline{\quad} \text{H}(\text{OH}) + \underline{\quad} \text{PbCl}_2$	_____
6) $\underline{\quad} \text{AlBr}_3 + \underline{\quad} \text{K}_2\text{SO}_4 \rightarrow \underline{\quad} \text{KBr} + \underline{\quad} \text{Al}_2(\text{SO}_4)_3$	_____
7) $\underline{\quad} \text{CH}_4 + \underline{\quad} \text{O}_2 \rightarrow \underline{\quad} \text{CO}_2 + \underline{\quad} \text{H}_2\text{O}$	_____
8) $\underline{\quad} \text{FeCl}_3 + \underline{\quad} \text{NaOH} \rightarrow \underline{\quad} \text{Fe}(\text{OH})_3 + \underline{\quad} \text{NaCl}$	_____
9) $\underline{\quad} \text{P} + \underline{\quad} \text{O}_2 \rightarrow \underline{\quad} \text{P}_2\text{O}_5$	_____
10) $\underline{\quad} \text{Ag}_2\text{O} \rightarrow \underline{\quad} \text{Ag} + \underline{\quad} \text{O}_2$	_____
11) $\underline{\quad} \text{C}_3\text{H}_8 + \underline{\quad} \text{O}_2 \rightarrow \underline{\quad} \text{CO}_2 + \underline{\quad} \text{H}_2\text{O}$	_____
12) $\underline{\quad} \text{K} + \underline{\quad} \text{MgBr}_2 \rightarrow \underline{\quad} \text{KBr} + \underline{\quad} \text{Mg}$	_____
13) $\underline{\quad} \text{H}_2\text{O} + \underline{\quad} \text{O}_2 \rightarrow \underline{\quad} \text{H}_2\text{O}_2$	_____
14) $\underline{\quad} \text{NaBr} + \underline{\quad} \text{CaF}_2 \rightarrow \underline{\quad} \text{NaF} + \underline{\quad} \text{CaBr}_2$	_____
15) $\underline{\quad} \text{Na}_3\text{PO}_4 + \underline{\quad} \text{CaCl}_2 \rightarrow \underline{\quad} \text{NaCl} + \underline{\quad} \text{Ca}_3(\text{PO}_4)_2$	_____