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## Balancing Equations Challenge

## Part A: Parts \& Pieces

(1) Circle each subscript in each chemical formula.
(2) Draw a square around each coefficient.
(3) Answer the questions related to each chemical formula.
$\mathrm{O}_{2}$
What element does the O represent?
$2 \mathrm{C}_{2} \mathrm{H}_{6}$
How many atoms each element are in the formula shown?
$\mathrm{C}=$ $\qquad$ $\mathrm{H}=$ $\qquad$
$\mathrm{CO}_{2}$
How many atoms of each element are in the formula shown?
$\mathrm{C}=$ $\qquad$ $\mathrm{O}=$ $\qquad$

## $5 \mathrm{H}_{2}$

How many atoms of Hydrogen are in this formula as shown?

Part B: Label the chemical equation using PRODUCT, REACTANTS, SUBSCRIPT, COEFFICIENT, and YIELDS.

$\mathrm{H}_{2}+\mathrm{O}_{2} \rightarrow \mathrm{H}_{2} \mathrm{O}$
$\mathrm{H}_{2} \mathrm{O}_{2} \rightarrow \mathrm{H}_{2} \mathrm{O}+\mathrm{O}_{2}$
$\mathrm{Na}+\mathrm{O}_{2} \rightarrow \mathrm{Na}_{2} \mathrm{O}$
$\mathrm{N}_{2}+\mathrm{H}_{2} \rightarrow \mathrm{NH}_{3}$
$\mathrm{P}_{4}+\mathrm{O}_{2} \rightarrow \mathrm{P}_{4} \mathrm{O}_{6}$
$\mathrm{C}+\mathrm{H}_{2} \rightarrow \mathrm{CH}_{4}$

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\mathrm{Al}_{2} \mathrm{O}_{3} \rightarrow \mathrm{Al}+\mathrm{O}_{2}
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\mathrm{Fe}+\mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{Fe}_{3} \mathrm{O}_{4}+\mathrm{H}_{2}
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$$
\mathrm{C}_{2} \mathrm{H}_{6}+\mathrm{O}_{2} \rightarrow \mathrm{CO}_{2}+\mathrm{H}_{2} \mathrm{O} \quad \mathrm{Na}_{2} \mathrm{SO}_{4}+\mathrm{CaCl}_{2} \rightarrow \mathrm{CaSO}_{4}+\mathrm{NaCl}
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