Name $\qquad$
Mass Stoichiometry
Date $\qquad$ Period $\qquad$

$$
\ldots \mathrm{H}_{2}(\mathrm{~g})+\ldots \mathrm{O}_{2}(\mathrm{~g}) \rightarrow \ldots \mathrm{H}_{2} \mathrm{O}(\mathrm{~g})
$$

1. How many grams of hydrogen gas are needed to completely react with 9.30 grams of oxygen gas $\left(\mathrm{O}_{2}\right)$ ?
2. How many grams of water are produced when 2.40 grams of oxygen gas reacts?

$$
\ldots \quad \mathrm{Mg}(\mathrm{~s})+\ldots \mathrm{O}_{2}(\mathrm{~g}) \quad \rightarrow \quad \ldots \quad \mathrm{MgO}(\mathrm{~s})
$$

3. How many grams of magnesium oxide are produced when 4.50 grams of oxygen gas are reacted?
4. How many grams of oxygen gas are needed to react with 16.0 grams of magnesium?

$$
\ldots \mathrm{CH}_{4}(\mathrm{~g})+\ldots \mathrm{O}_{2}(\mathrm{~g}) \rightarrow \ldots \mathrm{CO}_{2}(\mathrm{~g})+\ldots \mathrm{H}_{2} \mathrm{O}(\mathrm{~g})
$$

5. How many moles of methane $\left(\mathrm{CH}_{4}\right)$ are needed to produce 36.0 grams of water?
6. How many grams of oxygen are necessary to react with 0.250 moles of methane gas?
$\mathrm{O}^{\mathfrak{s}} \mathrm{N}^{\mathfrak{s}} \varepsilon^{\varepsilon} \mathrm{LI}$
$\tau^{\prime} I \quad \tau^{\circ} \varepsilon$
${ }^{\tau} \mathrm{H}^{\circ} \mathrm{LI}{ }^{-1}$
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