

## Check Homework - Worksheet

FORMATION



DECOMP.



Sucrose  $\rightarrow$  carbon + hydrogen + oxygen



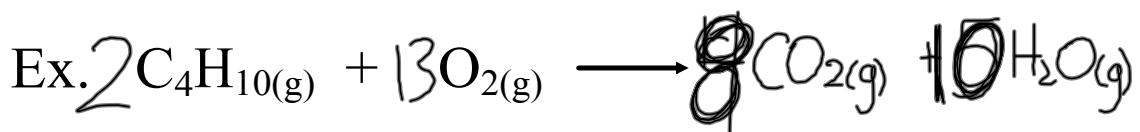
# Chemical Reactions

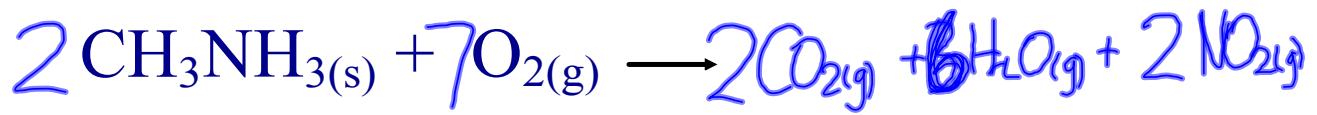
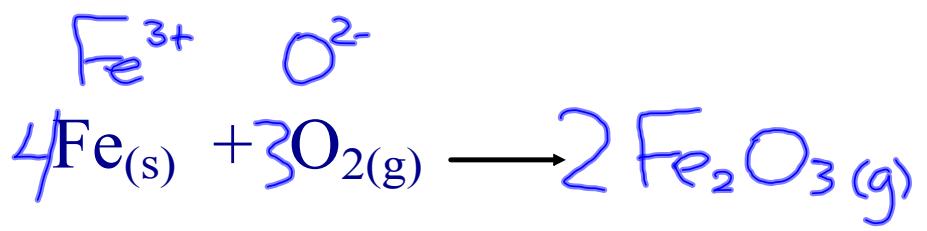
## III. Combustion Reaction

A complete combustion reaction is the **burning** of a substance with oxygen to produce the most common oxides of the elements in the substance being burned.

### Most Common Oxides:

- Carbon :  $\text{CO}_{2(\text{g})}$
- Hydrogen:  $\text{H}_2\text{O}_{(\text{g})}$
- Sulfur:  $\text{SO}_{2(\text{g})}$
- Nitrogen:  $\text{NO}_{2(\text{g})}$
- A metal: Oxide of metal with most common ion charge





$$1.12 \text{ mol } \text{NH}_3 \times \frac{6.02 \times 10^{23} \text{ molecules } \text{NH}_3}{1 \text{ mol } \text{NH}_3} \times \frac{4 \text{ atoms}}{1 \text{ molecule}}$$

$$= 2.70 \times 10^{24}$$

③ 92.12 g/mol

$$0.780 \text{ mol } \text{Ca}(\text{CN})_2 \times \frac{92.12 \text{ g}}{1 \text{ mol}} = 71.9 \text{ g}$$

## Combustion Reactions

Write a balanced chemical equation for the following combustion reactions:



# **Homework**

**p. 331 #13, 14**

**p. 332 #15, 16**

**p. 337 #20, 21**

# Chemical Reactions

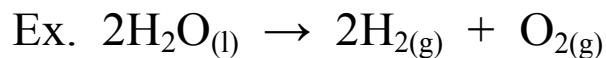
## I. Formation Reactions

elements  $\longrightarrow$  compound



## II. Decomposition Reactions

compound  $\longrightarrow$  elements



## III. Combustion Reaction

$\text{O}_2$   
substance + oxygen  $\longrightarrow$  most common oxides

