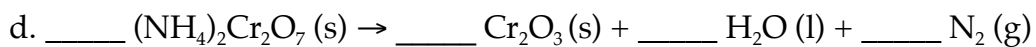
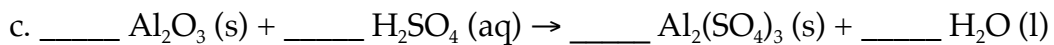
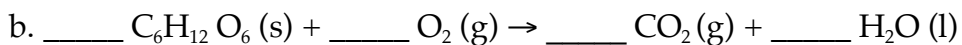
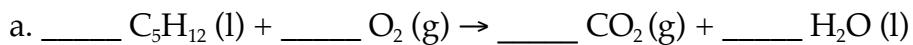


Exercise 4: Chemical equations

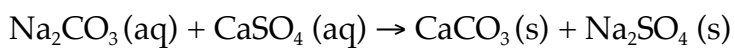
1. **Translate** the following phrases into the proper chemical symbols:

- a. two moles of carbon dioxide gas
- b. one mole of diatomic hydrogen gas
- c. two moles of monatomic hydrogen metal
- d. two moles of carbonate ion in solution

2. Balance the following **chemical equations**:



3. Given the not-necessarily-balanced equation:



a. Balance the equation.

b. If 100.01 g of calcium carbonate are precipitated in this reaction, what mass of sodium carbonate was needed for the reaction?

c. What mass of calcium sulfate was needed?

d. Suppose 200.00 g of sodium carbonate were added to the mass of calcium sulfate you found in part c. How much calcium carbonate would be precipitated?