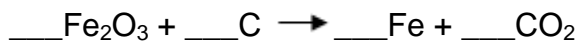


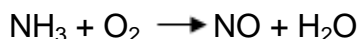
Prep for Basic Chemistry: Competency 8 Practice **Key**

1. What are the correct coefficients for the following chemical equation?



- (A) 2; 4; 3; 3
 (B) 2; 2; 4; 3
 (C) **2; 3; 4; 3**
 (D) 2; 4; 4; 3

2. What is the coefficient of NO once the following equation is balanced?



- (A) 3
 (B) 2
 (C) 6
 (D) **4**
 (E) 5

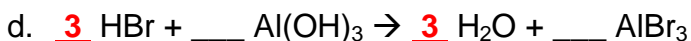
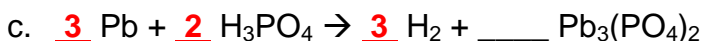
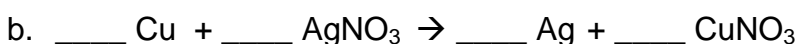
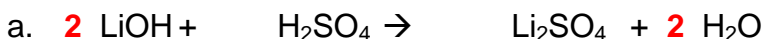
3. Which of the following is a correctly written balanced equation?

- (A) $\text{NaBr} + \text{Cl}_2 \rightarrow \text{NaCl}_2 + \text{Br}$
 (B) **$\text{CH}_4 \rightarrow \text{C} + 2\text{H}_2$**
 (C) $\text{FeS} + 2\text{HCl} \rightarrow \text{HS} + \text{FeCl}_2$
 (D) $\text{CaOH} + \text{HCl} \rightarrow \text{CaCl} + \text{H}_2\text{O}$

4. A coefficient is the...

- (A) **whole number in front of a chemical formula used to balance a chemical equation**
 (B) Subscript written below and after a polyatomic ion in parentheses.

5. Balance the following chemical equations:



6. Write the symbols for any two of the diatomic elements: **H₂, O₂, N₂, Cl₂, Br₂, I₂, F₂...**

- a. _____
b. _____

7. How many atoms of each type are present in these compounds?

- a. CaCO₃ Ca= **1** C= **1** O= **3**
- b. Ca(H₂PO₄)₂ Ca= **1** H= **4** P= **2** O= **8**
- c. Mg(OH)₂ Mg= **1** O= **2** H= **2**
- d. CH₃OH C= **1** H= **4** O= **1**
- e. NaNH₄(OH)₂ Na= **1** N= **1** H= **6** O= **2**