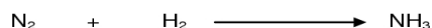


## Balancing Equations

1. a) Why is the following equation not balanced?



- b) The following is an attempt to balance the above equation. What is wrong with the way that the equation is balanced?



2. Balance the following equations by rewriting them in the space provided.

- a)  $\text{Na} + \text{Cl}_2 \longrightarrow \text{NaCl}$  \_\_\_\_\_
- b)  $\text{K} + \text{O}_2 \longrightarrow \text{K}_2\text{O}$  \_\_\_\_\_
- c)  $\text{H}_2 + \text{O}_2 \longrightarrow \text{H}_2\text{O}$  \_\_\_\_\_
- d)  $\text{H}_2 + \text{Cl}_2 \longrightarrow \text{HCl}$  \_\_\_\_\_
- e)  $\text{N}_2 + \text{H}_2 \longrightarrow \text{NH}_3$  \_\_\_\_\_
- f)  $\text{CO} + \text{O}_2 \longrightarrow \text{CO}_2$  \_\_\_\_\_
- g)  $\text{Al} + \text{Br}_2 \longrightarrow \text{AlBr}_3$  \_\_\_\_\_
- h)  $\text{N}_2\text{H}_4 + \text{O}_2 \longrightarrow \text{H}_2\text{O} + \text{N}_2$  \_\_\_\_\_
- i)  $\text{CH}_4 + \text{O}_2 \longrightarrow \text{CO}_2 + \text{H}_2\text{O}$  \_\_\_\_\_
- j)  $\text{Na} + \text{O}_2 \longrightarrow \text{NaO}_2$  \_\_\_\_\_

3. For each of the following write the correct skeleton equation, and then balance it to form a chemical equation.

- a) copper (II) oxide + hydrogen  $\longrightarrow$  copper + water  
 Skeleton equation \_\_\_\_\_  
 Chemical equation \_\_\_\_\_
- b) lead (II) nitrate + potassium iodide  $\longrightarrow$  lead (II) iodide + potassium nitrate  
 Skeleton equation \_\_\_\_\_  
 Chemical equation \_\_\_\_\_
- c) calcium + water  $\longrightarrow$  calcium hydroxide + hydrogen gas  
 Skeleton equation \_\_\_\_\_  
 Chemical equation \_\_\_\_\_
- d) lead (II) sulfide + oxygen  $\longrightarrow$  lead + sulfur dioxide  
 Skeleton equation \_\_\_\_\_  
 Chemical equation \_\_\_\_\_