Counting Atoms Worksheet

Indicate whether each statement is true or false.

1. The chemical formula for glucose, $C_6H_{12}O_6$, indicates it contains 6 carbon atoms, 12 hydrogen atoms, and 6 oxygen atoms.
2. In the formula 2 H_2O, the number 2 indicates there are two atoms of hydrogen.
3. A molecule of magnesium chloride ($MgCl_2$) contains one magnesium atom and two chlorine atoms.

For each of the following chemical reactions, follow the steps to circle the reactants, square the products, count the atoms of each element in the reactants and products, and determine whether the equation is balanced.

1) $Na + Cl_2 \rightarrow NaCl$

2) $2 H_2 + O_2 \rightarrow 2 H_2O$

3) $C_6H_{12}O_6 + 6 O_2 \rightarrow 6 CO_2 + 6 H_2O$

4) $S + O_2 \rightarrow SO_2$

5) $Fe + 2 H_2O \rightarrow Fe_3O_4 + H_2$