Name _____

# Is It Following the Law?

**Instructions:** Count the atoms on the reactant side of the equation and on the product side. Based on the atom counts, decide if the chemical equation is following the Law of Conservation of Mass or not. Circle "Yes" if it is and "No" if it isn't.

| | | | |
|---|---|---|---|
| 1. | $2H_2 + 2O \rightarrow 2H_2O$<br>H = \| H =<br>O = \| O = | Yes | No |
| 2. | $P_4 + 3O_2 \rightarrow 2P_2O_3$<br>P = \| P =<br>O = \| O = | Yes | No |
| 3. | $N_2 + 3H_2 \rightarrow 2NH_3$<br>N = \| N =<br>H = \| H = | Yes | No |
| 4. | $2K + 2Cl_2 \rightarrow 2KCl$<br>K = \| K =<br>Cl = \| Cl = | Yes | No |
| 5. | $2Al + 4HCl \rightarrow 3H_2 + 2AlCl_3$<br>Al = H = \| Al = H =<br>Cl = \| Cl = | Yes | No |
| 6. | $N_2 + 3F_2 \rightarrow 2NF_3$<br>N = \| N =<br>F = \| F = | Yes | No |
| 7. | $2SnO_2 + 4H_2 \rightarrow 2Sn + 4H_2O$<br>Sn = H = \| Sn = H =<br>O = \| O = | Yes | No |
| 8. | $C_2H_6 + 2O_2 \rightarrow H_2O + 2CO_2$<br>C = H = \| C = H =<br>O = \| O = | Yes | No |
| 9. | $NH_3 + 2O_2 \rightarrow NO + H_2O$<br>N = H = \| N = H =<br>O = \| O = | Yes | No |
| 10. | $4Al + 3O_2 \rightarrow 2Al_2O_3$<br>Al = \| Al =<br>O = \| O = | Yes | No |