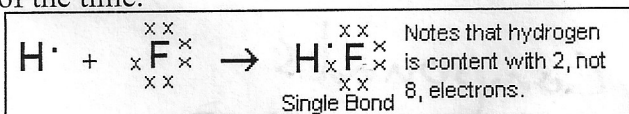


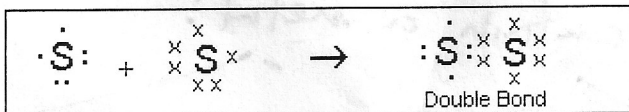
Practice - Covalent Bonding

Covalent bonding occurs when two or more nonmetals share electrons, attempting to attain a stable octet of electrons at least part of the time.

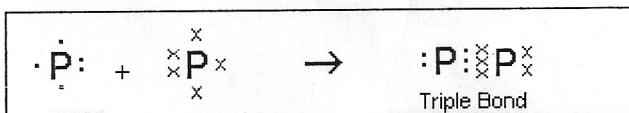
Example:



Example:



Example:



Key
10-11
chem

Covalent Bonding

Show how covalent bonding occurs in each of the following pairs of atoms. Atoms may share one, two, or three pairs of electrons. Represent the electrons belonging to different elements with different symbols (x, .).

1. H + H (H ₂)	$\text{H}\cdot + \times \text{H} \rightarrow \text{H}(\cdot \times) \text{H} \quad \text{H}_2$	Hydrogen
2. F + F (F ₂)	$\cdot \ddot{\text{F}} \cdot + \begin{array}{c} \times \times \\ \times \text{F} \times \\ \times \times \end{array} \rightarrow \text{F}(\cdot \times \times) \text{F} \quad \text{F}_2$	fluorine
3. O + O (O ₂)	$\cdot \ddot{\text{O}} \cdot + \begin{array}{c} \times \\ \times \text{O} \times \\ \times \end{array} \rightarrow \text{O}(\cdot \times \times) \text{O} \quad \text{O}_2$	oxygen
4. N + N (N ₂)	$\cdot \ddot{\text{N}} \cdot + \begin{array}{c} \times \\ \times \text{N} \times \\ \times \end{array} \rightarrow \text{N}(\cdot \times \times) \text{N} \quad \text{N}_2$	nitrogen
5. C + O (CO ₂)	$\cdot \text{C} \cdot + \begin{array}{c} \times \\ \times \text{O} \times \\ \times \end{array} + \begin{array}{c} \times \\ \times \text{O} \times \\ \times \end{array} \rightarrow \text{O}(\cdot \times) \text{C}(\cdot \times) \text{O}(\cdot \times) \quad \text{CO}_2$	carbon dioxide
6. H + O (H ₂ O)	$\text{H}\cdot + \cdot \ddot{\text{O}} \cdot + \text{H}\cdot \rightarrow \text{H}(\cdot \times) \text{O}(\cdot \times) \text{H} \quad \text{H}_2\text{O}$	dihydrogen monoxide