

Name: _____

Blk: _____ Date: _____

Chemistry 11 LEWIS DOT STRUCTURES

Lewis DOT Structures of **IONIC compounds** are easy to construct:
HERE ARE THE RULES:

1.

2.

Example 1. Draw the Lewis Structure of MgCl_2 .

Step 1.

Step 2.

Example 2. Draw the Lewis Structure for each of the following compounds:

a. LiBr

b. AlF_3

c. BaO

d. Na_2S

Lewis DOT Structures of **COVALENT compounds** are somewhat more difficult to construct: HERE ARE THE RULES FOR THOSE THAT OBEY THE OCTET RULE

1.

2.

3.

4.

5.

Example 3. Draw the Lewis Structure for CHO_2^- :

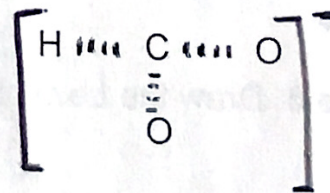
Step 1

Step 2.

Step 3.

Step 4.

Step 5.



Example 4. Draw the Lewis Structure for HOPO : $\text{H} \text{ ||| } \text{O} \text{ ||| } \text{P} \text{ ||| } \text{O}$
 Step 1.

Step 2.

Step 3.

Step 4.

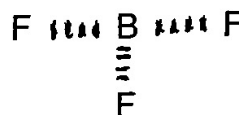
Step 5.

COVALENT compounds that VIOLATE the OCTET RULE

A. In addition to _____, the atoms _____, _____ and _____ are exceptions as they have _____ than a full octet when they form covalent compounds.

→ These atoms tend to _____

Example 5. Draw the Lewis Structure for BF_3 :
 Step 1.



Step 2.

Step 3.

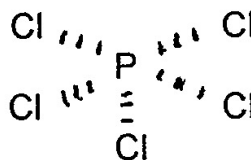
Step 4.

Step 5.

B. Elements in the _____ and _____ periods of the periodic table frequently attain _____ than a full octet when they form covalent compounds.

→ Therefore, the central atom will end up with _____ than eight valence electrons

Example 6. Draw the Lewis Structure for PCl_5 :
 Step 1.



Step 2.

Step 3.

Step 4.