

I. For each element, tell the number of valence electrons it holds and give the electron dot symbol for the neutral element. If this element were to form an ion, what kind of ion would it form.

C	Br	Ne	O	F
S	P	Si	Cl	Se
H	I	B	N	He

II. Draw the appropriate Lewis structures for the following compounds (First, draw the electron-dot symbols for each element, then put them together in such a way that gives each a full shell):

Cl_2	Br_2	H_2O	NH_3
H_2S	CH_4	OF_2	CCl_4

III. Draw the appropriate Lewis structures for the following compounds & polyatomic ions

NF_3	CO_2	CH_2O	SiCl_4
C_2H_6	C_2H_4	C_2H_2	HCN
NH_4^+	CO_3^{2-}	NO_2^-	NO_2^+

V. For each of the following molecules, draw the Lewis dot structure, give the number of electron sets and determine both the *electronic* and the *molecular* geometry surrounding the central atom. Then redraw the molecule in its proper geometric shape.

