Practice with Lewis Dot Structures

1. Write the Lewis dot structure for each of these molecules. Some are easy, some are not. A few violate the octet rule.

   a. CF$_4$  b. HF  c. NBr$_3$  d. C$_2$H$_2$
   e. CO  f. H$_2$S  g. CH$_3$Br  h. AsH$_3$
   i. OF$_2$  j. N$_2$  k. CS$_2$  l. BF$_3$
   m. H$_2$O$_2$  n. F$_3$NO  o. H$_2$CO  p. CH$_3$OH
   q. BrF$_5$  r. SF$_6$  s. HCN  t. HNC

2. Write the Lewis dot structure for each of these ions.

   a. ammonium ion  b. hypochlorite ion  c. hydronium ion  d. hydroxide ion  e. nitride ion (N$_3^-$)
   f. cyanide ion  g. cyanate ion, OCN$^-$ (C = central atom)  h. peroxide ion
   i. GaBr$_4^-$  j. P$_2$H$_6^{2+}$

3. Compounds with the same formula, but different structures, are called **isomers**. For each formula below, draw the Lewis dot structure of each isomer obeying the octet rule.

   a. C$_2$H$_6$O  b. C$_2$H$_4$O  c. C$_4$H$_{10}$  d. C$_3$H$_6$  e. C$_3$H$_4$