

name: _____

date: _____

polar and non-polar covalent molecules

Directions: For each of the following compounds:

- Draw a correct Lewis structure.
- Predict the 3D molecular geometry and bond angle(s) observed in the molecule.
- Calculate the electronegativity differences (END) for each unique covalent bond seen in the molecule.
- Classify the polarity of each covalent bond in the molecule.
- Draw dipole arrows for each unique bond in the molecule, as necessary.
- Classify the molecule as overall polar or nonpolar.

a. NCl_5

b. H_2S

c. CHCl_3

d. SH_5I

e. BH_3

f. BFB rCl

g. CH_4

h. HF

i. SeBr_2Cl_2

j. SiO_2

k. N_2

l. PCl_4Br

m. H_2O

n. PBr_3

o. NH_3

p. O_2

q. SF_6

r. SiF_4

s. PH_3Cl_2

t. SeCl_2