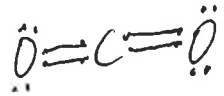
Name: _____

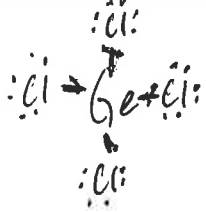
Covalent Compounds: Naming and Drawing Lewis Structures

For each of the following compounds, write the formula and draw a Lewis structure using dots to represent unshared pairs of electrons and a line to show a pair of shared electrons:

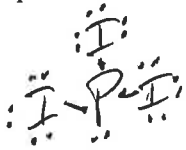
a. carbon dioxide CO_2



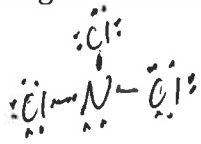
b. germanium tetrachloride $GeCl_4$



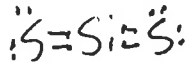
c. phosphorus triiodide PI_3



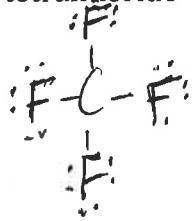
d. nitrogen trichloride NCl_3



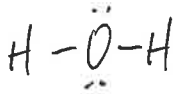
e. silicon disulfide SiS_2



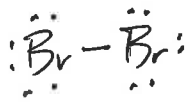
f. carbon tetrafluoride CF_4



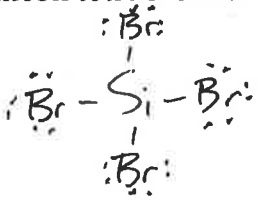
g. dihyrodgen monoxide H_2O



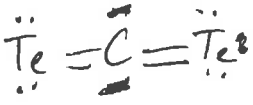
h. bromine Br_2



i. silicon tetrabromide $SiBr_4$

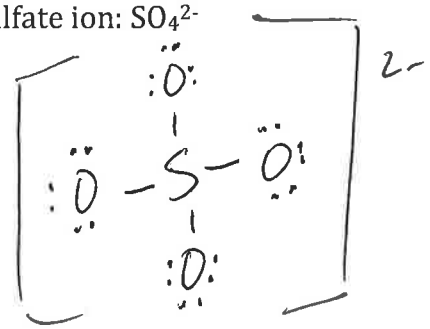


j. carbon ditelluride CTe_2



Challenge! Can you draw a Lewis structure to represent the following covalently bound polyatomic ions?

Sulfate ion: SO_4^{2-}



Hydroxide ion: OH^-