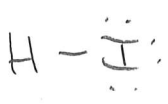
Name_____ Date _____ Period ___

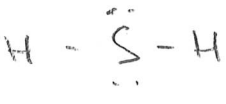
Draw Lewis Dash Structures for the following compounds and polyatomic ions. Show your calculation for total valence electron pairs. Identify the molecular geometry. For each molecule determine polarity.

HI 8 ve⁻



Linear
Polar

H_2S 8 ve⁻



Bent
Polar

PH_3 8 ve⁻

Trig Pyramidal
Polar

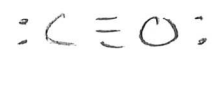
CBr_2Cl_2 32 ve⁻

Tetrahedral
Polar

$SiSe_2$ 16 ve⁻

Linear
Nonpolar

CO 10 ve⁻



Linear
polar

CO_2 16 ve⁻

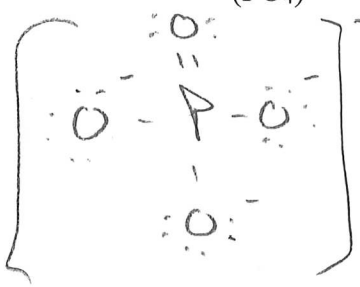
Linear
Nonpolar

$(CO_3)^{2-}$ 24 ve⁻

☆ two other resonance structures

Trig Planer
Nonpolar

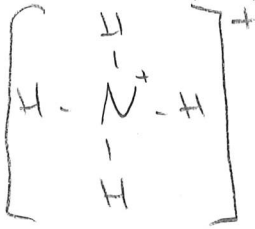
$(PO_4)^{3-}$ 32 ve⁻



☆ three other resonance structures

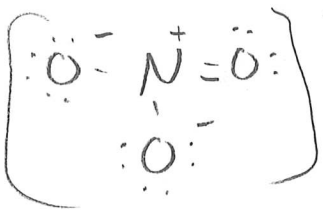
Tetrahedral
Nonpolar

$(NH_4)^{1+}$ 8 ve⁻



tetrahedral
Nonpolar

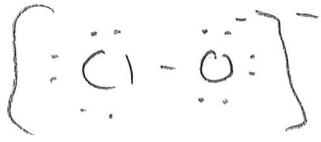
$(NO_3)^{1-}$ 24 ve⁻



☆ two other resonance structures

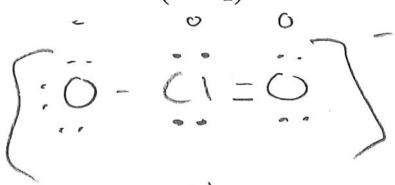
trig planer
nonpolar

$(ClO)^{1-}$ 14 ve⁻



Linear
polar

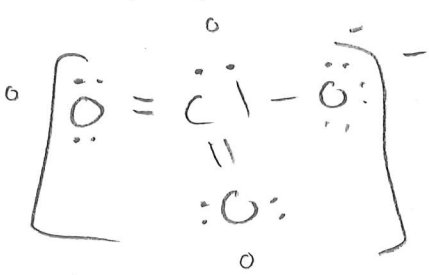
$(ClO_2)^{1-}$ 20 ve⁻



* one other resonance structure

Bent
Polar

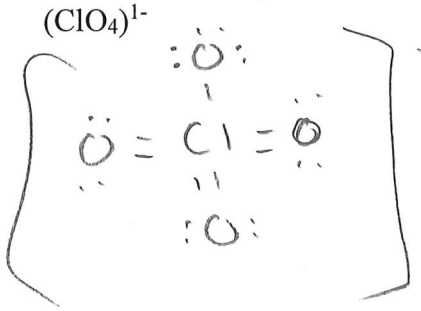
$(ClO_3)^{1-}$ 26 ve⁻



* two other resonance structures

Trig Pyramidal
Polar

$(ClO_4)^{1-}$ 32 ve⁻



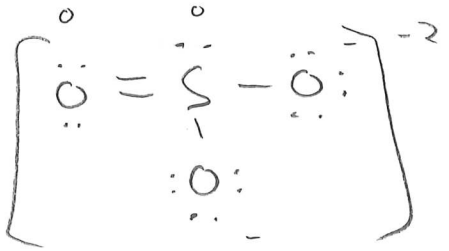
* 3 other resonance structures

Tetrahedral
Nonpolar

SO_3 24 ve⁻

Trig Planer
Nonpolar

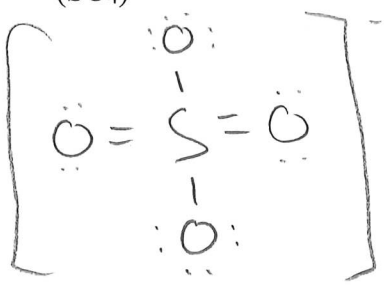
$(SO_3)^{2-}$ 26 ve⁻



* two other resonance structures

Trig Pyramidal
Polar

$(SO_4)^{2-}$ 32 ve⁻



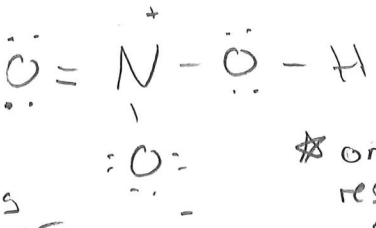
* 5 other resonance structures

Tetrahedral
Nonpolar

Draw structures for the following acids:

(all polar)

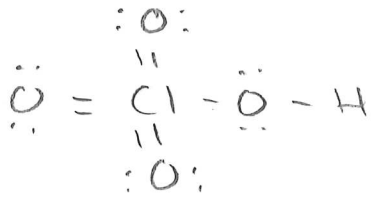
HNO_3



Trig planer

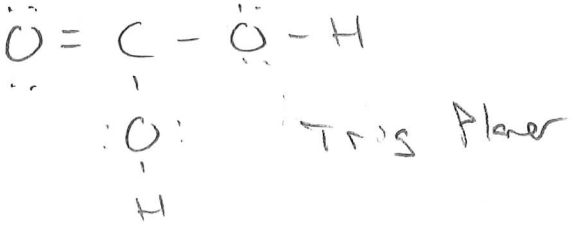
* one other resonance structure

$HClO_4$



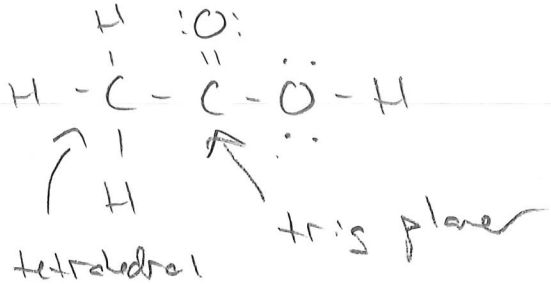
Tetrahedral

H_2CO_3



Trig Planer

$HC_2H_3O_2$



tetrahedral

tris planer