

Name: CALVIN
Name:
Date:
Hour:

Modeling

1) Be sure to show proper geometry.
(VSEPR theory)

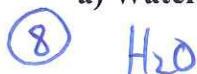
a) What does VSEPR represent? Valence Shell Electron Pair Repulsion

2) Build the following structures with correct geometry.

- a) Linear
- b) Bent
- c) trigonal planar
- d) trigonal pyramidal
- e) tetrahedral

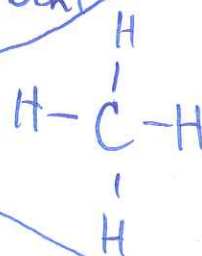
3) Draw Lewis structures and build models for the following:

a) Water



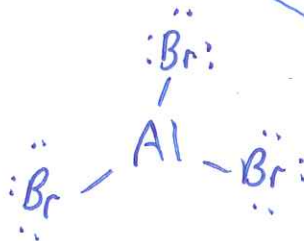
bent

b) Methane

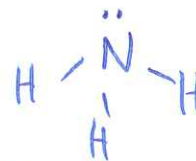


tetrahedral

c) $AlBr_3$ (exception to octet rule!)



d) NH_3 (Ammonia)



trigonal pyramidal

e) N_2

⑩



linear

f) O_2

⑫



linear

g) Carbon Dioxide

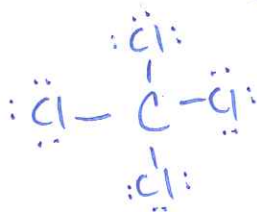
⑬



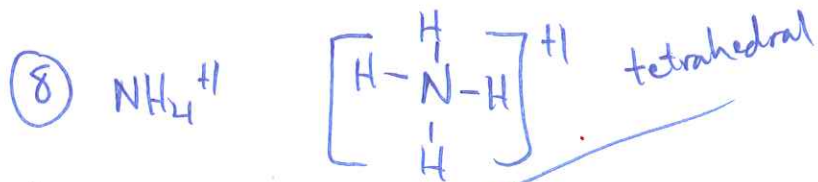
linear

h) CCl_4

⑳



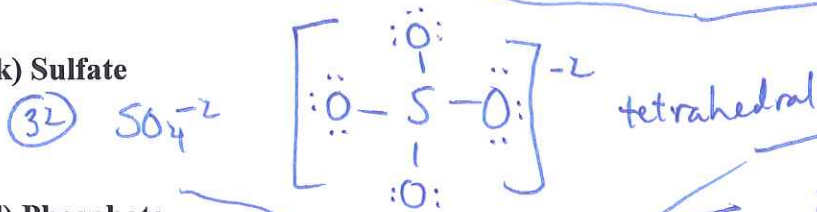
tetrahedral



i) Ammonium



k) Sulfate



l) Phosphate



m) SO_2



n) CH_3Cl



o) Hydroxide



4) List three of each:

Ionic molecule

Covalent molecule

Ex. NaCl
 CaBr_2
 LiF

H_2O
 CO_2
 O_2

BONUS: CH_2O (formaldehyde)

TBA ...

Go Vikings!!