

Name: Key Date: _____

Lewis Structures Worksheet

Part 1 – For each formula, give the h, n, s, b, nbe (except for the octet exceptions), and then draw the correct Lewis Structure

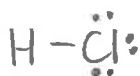
Part 2 – For each Lewis Structure, give the correct molecular shape

Part 3 – Determine the molecular polarity

Set A:

1. HCl

h 8
n 10
s 2
b 1

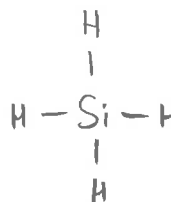


Shape: linear

Polarity:
polar

5. SiH₄

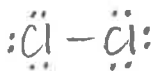
h 8
n 16
s 8
b 4



Shape:
tetrahedral
Polarity:
non-polar

2. Cl₂

h 14
n 16
s 2
b 1

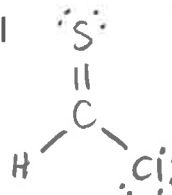


Shape: linear

Polarity:
non-polar

6. SCHCl

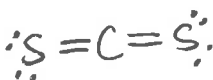
h 18
n 26
s 8
b 4



Shape:
trigonal planar
Polarity:
polar

3. SCS

h 16
n 24
s 8
b 4

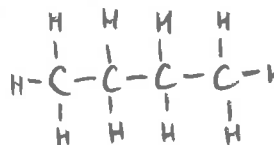


Shape: linear

Polarity:
non-polar

7. C₄H₁₀

h 26
n 52
s 26
b 13



Shape:
tetrahedral (4)
Polarity:
non-polar

4. C₂H₂

h 10
n 20
s 10
b 5



Shape: linear

Polarity:
non-polar

8. N₂

h 10
n 16
s 6
b 3

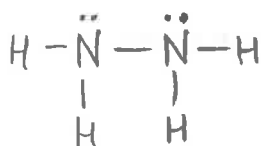


Shape:
linear
Polarity:
non-polar

Set B:

9. N_2H_4

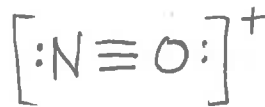
h 14
n 24
s 10
b 5



Shape:
trig pyramidal (2)
Polarity:
polar

15. NO^+

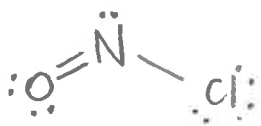
h 10
n 16
s 6
b 3



Shape:
linear
Polarity:
polar

10. $ONCl$

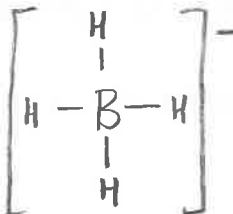
h 18
n 24
s 6
b 3



Shape:
angular
Polarity:
polar

16. BH_4^-

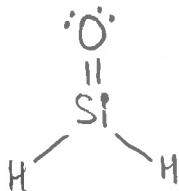
h 8
n 16
s 8
b 4



Shape:
tetrahedral
Polarity:
polar (ion)

11. $OSiH_2$

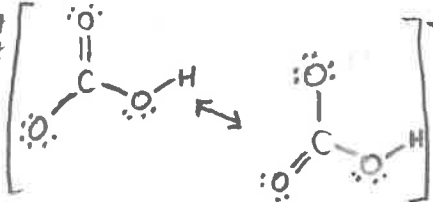
h 12
n 20
s 8
b 4



Shape:
trig planar
Polarity:
polar

17. HCO_3^-

h 24
n 34
s 10
b 5



Shape:
trig plan/ angular
Polarity:
polar

12. HCN

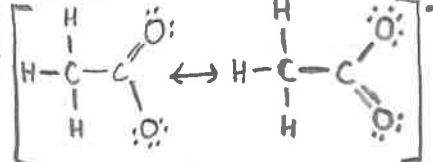
h 10
n 18
s 8
b 4



Shape:
linear
Polarity:
polar

18. $CH_3CO_2^-$

h 24
n 38
s 14
b 7



Shape:
tetrahedra/trig pla
Polarity:
polar

13. Cl_2O

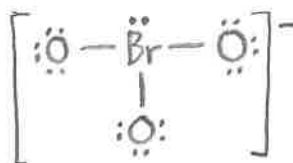
h 20
n 24
s 4
b 2



Shape:
angular
Polarity:
polar

19. BrO_3^-

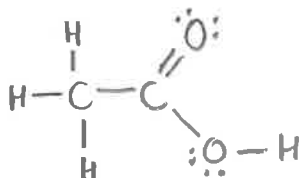
h 26
n 32
s 6
b 3



Shape:
trig pyramidal
Polarity:
polar

14. CH_3COOH

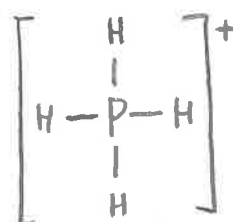
h 24
n 40
s 16
b 8



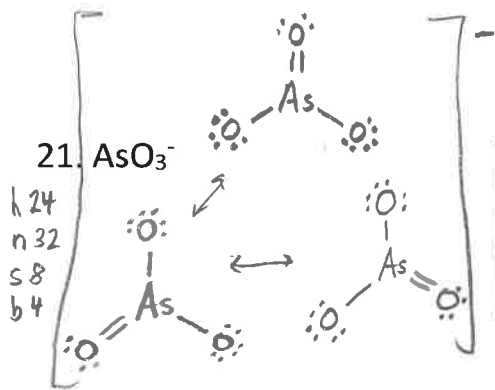
Shape:
tet/trig plan/ang
Polarity:
polar

20. PH_4^+

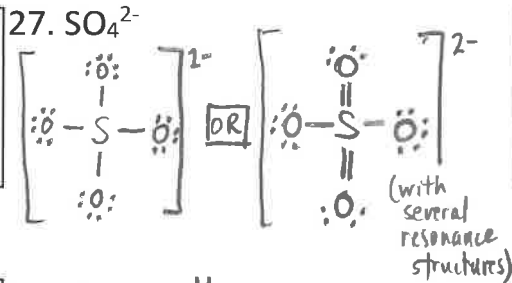
h 8
n 16
s 8
b 4



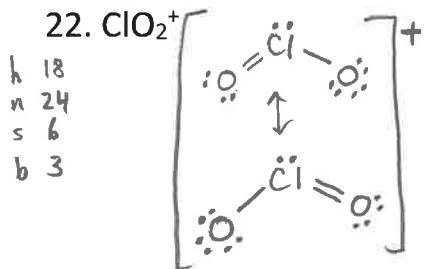
Shape:
tetrahedral
Polarity:
polar (ion)



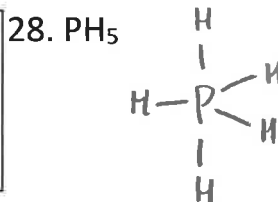
Shape:
trig planar
Polarity:
polar (ion)



Shape:
tetrahedral
Polarity:
polar (ion)

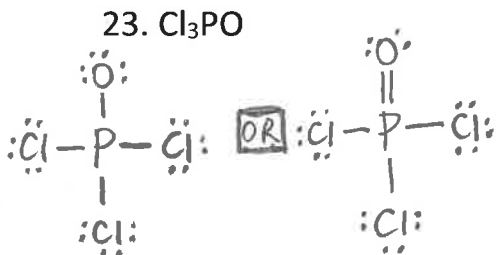


Shape:
angular
Polarity:
polar

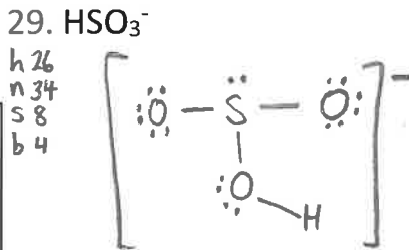


Shape:
trig bipyramidal
Polarity:
non-polar

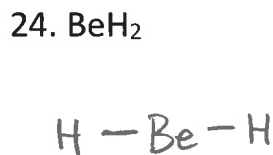
Set C:



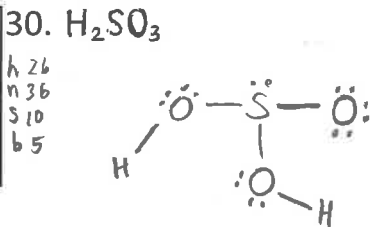
Shape:
tetrahedral
Polarity:
polar



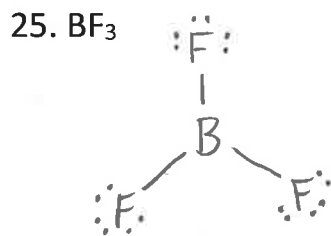
Shape:
trig pyr / angular
Polarity:
polar



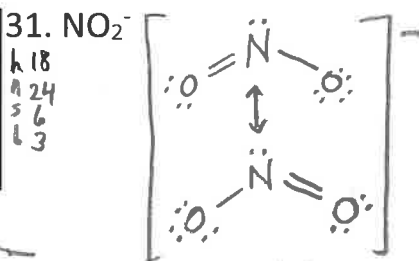
Shape:
linear
Polarity:
non-polar



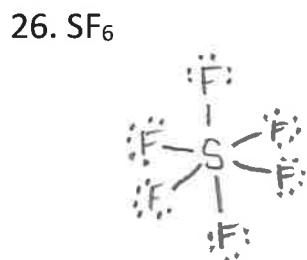
Shape:
trig pyr / angular
Polarity:
polar



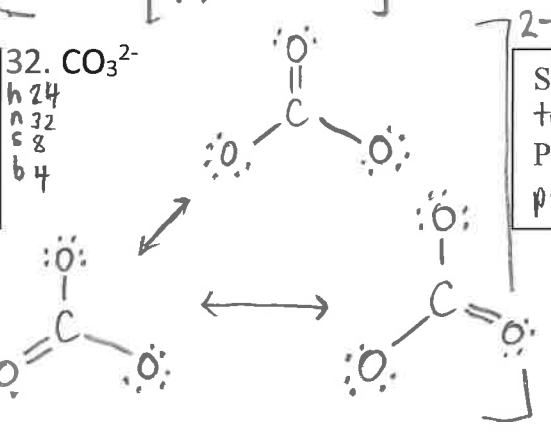
Shape:
trig planar
Polarity:
non-polar



Shape:
angular
Polarity:
polar



Shape:
octahedral
Polarity:
non-polar



Shape:
trig planar
Polarity:
polar (ion)

