Name:_____ Date:_____

Honors Chemistry Period_____

Chapter 8 Drawing Lewis Structures for Molecules
Easy to Moderate

H_2	Br_2	HBr	O_2
N_2	H_2O	CH_4	PCl_3
NH_3	$SiBr_4$	HCN	SO_3
O_3	CO_2	N_2O	SO_2

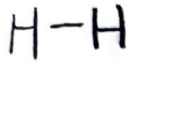
Name: Key

Chemistry Period 6

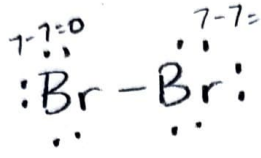
Date:

Drawing Lewis Structures for Molecules

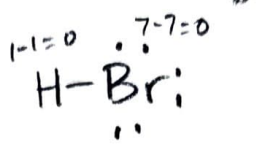
H_2 — 2e⁻ − 2 = 0



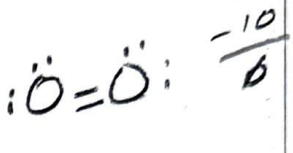
Br_2 — 7+7 = 14e⁻



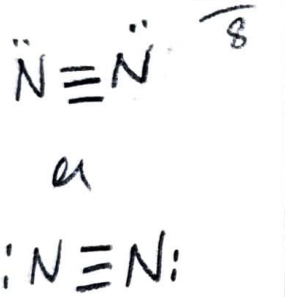
HBr — 1+7 = 8e⁻ − 2 = 6



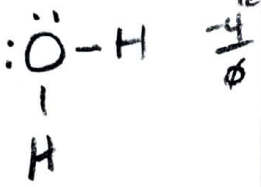
O_2 — 6+6 = 12e⁻ − 2 = 10 − 10 = 0



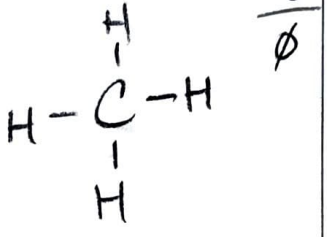
N_2 — 5+5 = 10e⁻ − 2 = 8



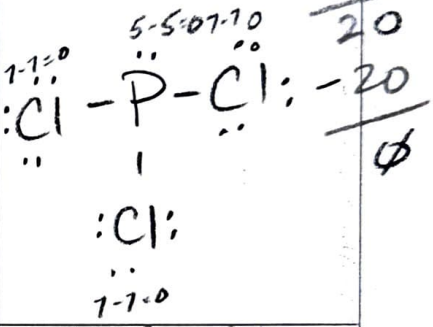
H_2O — 2+6 = 8e⁻ − 4 = 4e⁻ − 4 = 0



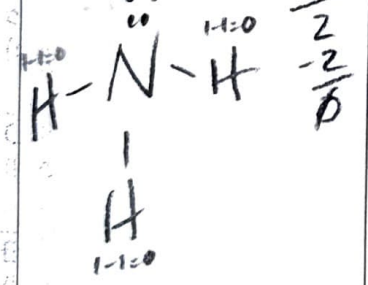
CH_4 — 4+4 = 8e⁻ − 8 = 0



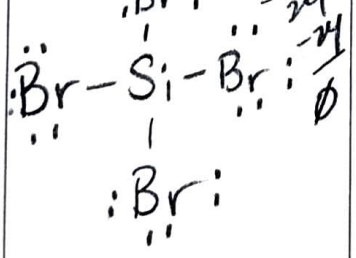
PCl_3 — 5+21 = 26e⁻ − 6e⁻ = 20 − 20 = 0



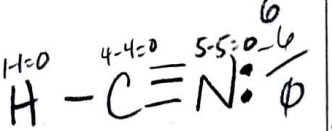
NH_3 — 5+3 = 8e⁻ − 8 = 6 − 6 = 2 − 2 = 0



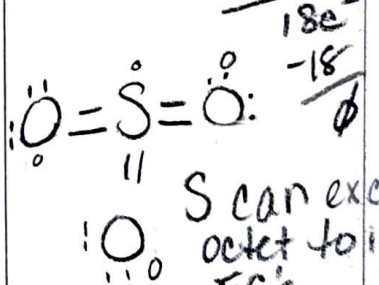
$SiBr_4$ — 4+28 = 32e⁻ − 8 = 24 − 24 = 0



HCN — 1+4+5 = 10e⁻ − 4 = 6 − 6 = 0

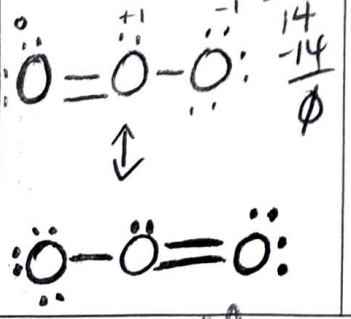


SO_3 — 6+18 = 24 − 6 = 18e⁻ − 18 = 0



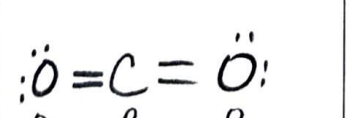
S can exceed octet to improve it!

O_3 — 6×3 = 18 — 18e⁻ − 4 = 14 − 14 = 0



Resonance

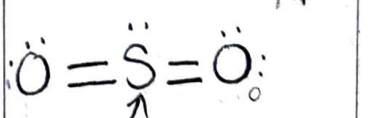
CO_2



N_2O — 10+6 = 16e⁻ − 4 = 12



SO_2 — 3(6) = 18 − 4 = 14



S CAN exceed the octet