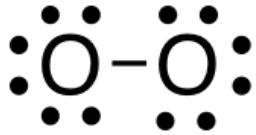
RULES

- Be respectful
- Participate
- It's ok to talk and to move around (on topic please)

Warm-Up Question 1

Is this a valid Lewis structure for O_2?



A. Yes
B. No
C. I have no idea.

PI

Warm-Up Question 2

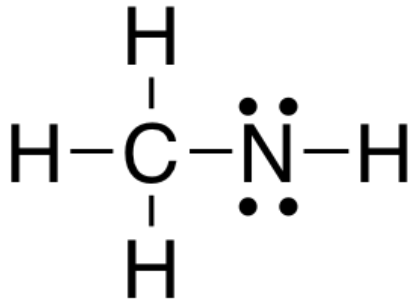
Choose the answer where all valence electrons are correct.

A. H = 1, C = 4, N = 3
B. C = 4, Br = 7, Al = 2
C. H = 1, O = 6, Si = 5
D. Cl = 7, N = 5, B = 3
E. None of these

PI

Warm-Up Question 3

The formal charge on N in this Lewis structure is

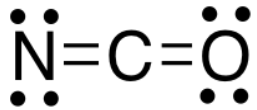


A. +1
B. -1
C. 0
D. I have no idea.

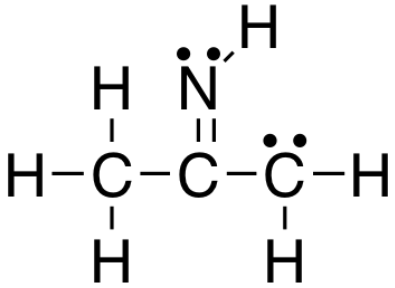
PI

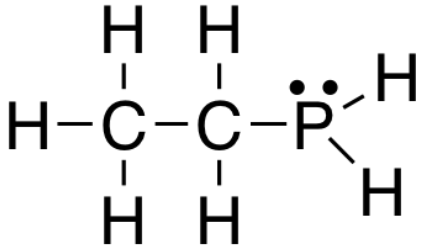
Formal Charge Practice

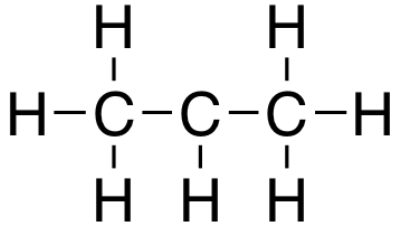
Add formal charges wherever they are needed.



H_2S



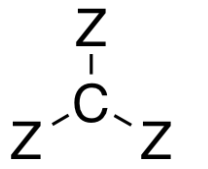


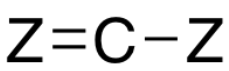


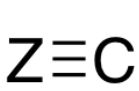
Formal Charge Patterns

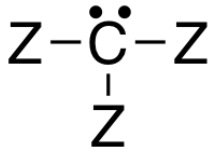
Fill in the blanks.
What is the common factor in each column?

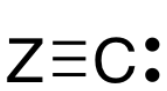
Charge = [ ] 0 [ ]











Z = generic atom

Homework
Formal Charge Patterns: N

(4 total)	(3 total)	(2 total)
+1	0	-1

Do this on your own. Answer posted at beginning of next class meeting.

Homework
Formal Charge Patterns: O

(3 total)	(2 total)	(1 total)
+1	0	-1

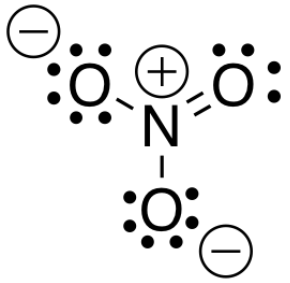
Do this on your own. Answer posted at beginning of next class meeting.

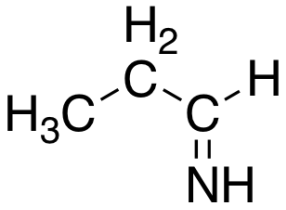
Homework
Formal Charge Patterns: Halogens (X)

(2 total)	(1 total)	(1 total)
+1	0	-1

Do this on your own. Answer posted at beginning of next class meeting.

Identify electron geometry and molecule or atom geometry.





PBr_3

H_2S

AlH_3

What type of hybrid orbital would you need in each situation?

- Making a tetrahedral shape:
- Making a double bond between C and O:
- Making a linear shape:
- Making a trigonal pyramidal shape:
- Making a C-N triple bond:
- Making a trigonal planar shape:

http://www.youtube.com/watch?v=SJdIIffWUqg