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| Polar Bonds  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues, Wed., &Thurs after school!  After-hours question? Email me at home: [eagenest@madison.k12.wi.us](mailto:eagenest@madison.k12.wi.us) |  | Name\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_ |

1. Define electronegativity in a complete sentence:
2. Can electronegativity be measured for a single atom floating in space? Explain in a single sentence.
3. Why does the Periodic Table glued into your notebook not list EN’s for most of the elements in Group 18?
4. Which element in period 5 has the least electronegativity?
5. Which element in Group 5 has the greatest electronnegativity?
6. The clouds at the top of p. 363, Blue Book, are for equally shared covalent , unequally shared covalent, and ionic bonds

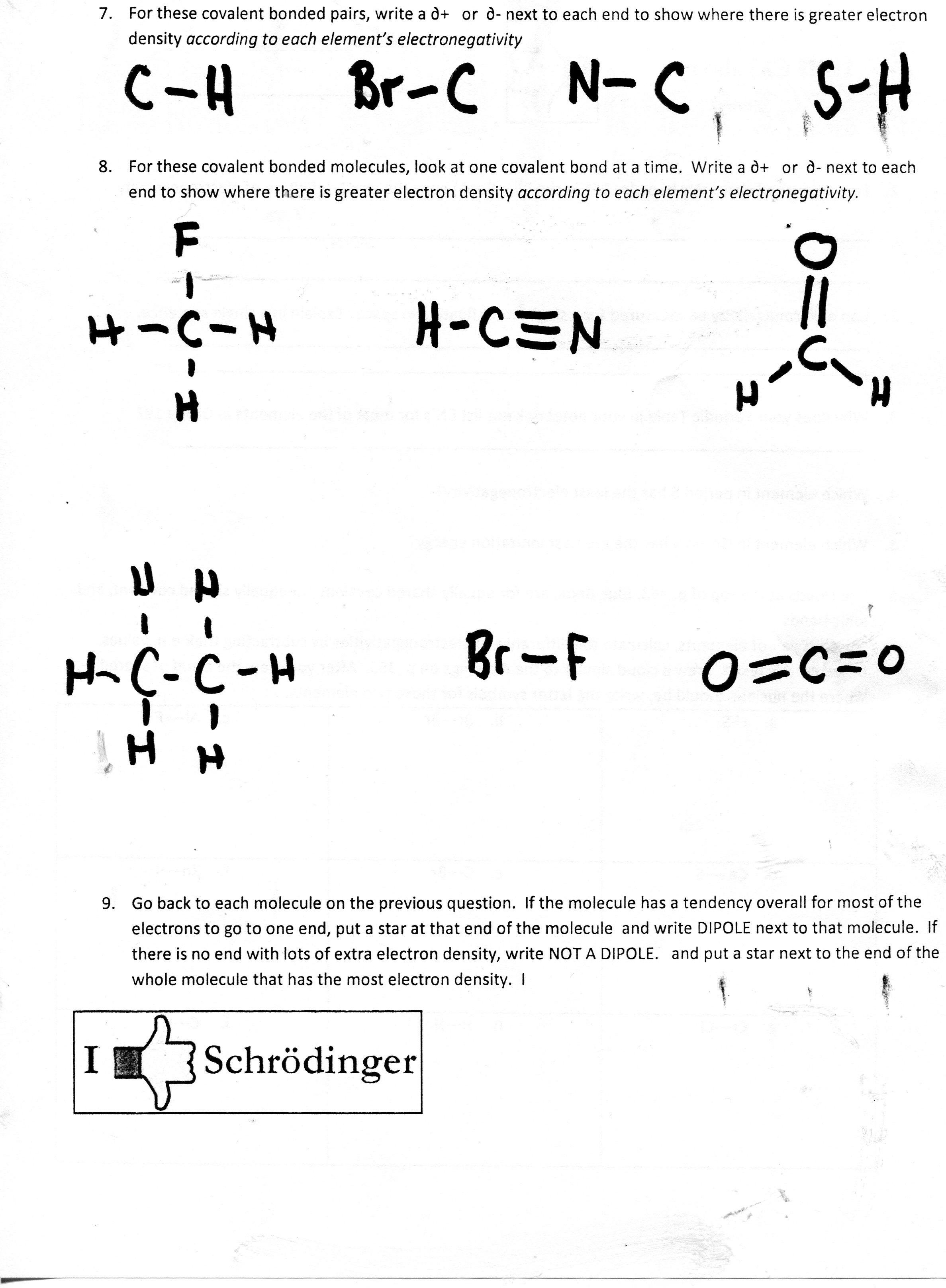
In the middle of each square draw two widely separated dots to represent the nuclei of the two given atoms

write the electronegativity value next to each atom(look it up in your notebook). calculate the difference of electronegativities by subtracting their e.n. values. Based on this result, draw a cloud that is either symmetrical, lopsided, or really lopsided, with the fattest part of the cloud going towards the more electronegative element.

Draw an arrow, parallel to the bond, that shows the direction where the e- density is greatest. ***The first has been done as an example.***

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| * 1. Li-S | * 1. Br---Br | * 1. Al----F |
| * 1. Ca --- S | * 1. C---Br | * 1. Zn----I |
| * 1. Cr---Cl | * 1. H---H | * 1. C---H |

1. For these covalent bonded pairs, write a ∂+ or ∂- next to each end to show where there is greater electron density *according to each element’s electronegativity*

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1. For these covalent bonded molecules, look at one covalent bond at a time. Next to each atom, write the electronegativity number (look it up in a table). Draw an arrow, parallel to each bond, that shows the direction where the e- density is greatest *according to each element’s electronegativity.*

