

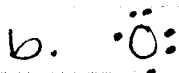
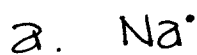
Week # 6: Unit 6 Chemical Bonding

(1)

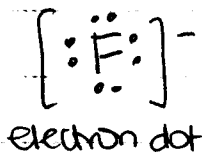
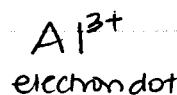
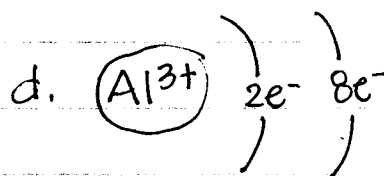
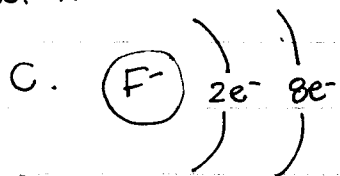
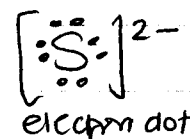
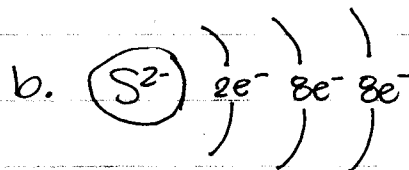
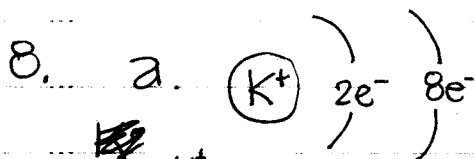
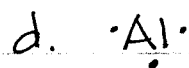
Chem 30A - Week 6: Answers to end of chapter problems not in textbook

2. Na^\cdot (sodium atom has 1 electron in valence shell)
 Na^+ (sodium ion has lost this electron)
4. A sodium ion has 11 protons, 10 electrons, + 12 neutrons while a neon atom has 10 protons, 10 electrons, + 10 neutrons. Both have the same # of electrons.
5. Both their physical and chemical properties will be different. A chlorine atom contains 7 electrons, a chlorine ion contains 8 electrons in its valence shell. A chlorine molecule joins two chlorine atoms together.

6. Electron dot symbols just show valence electrons.



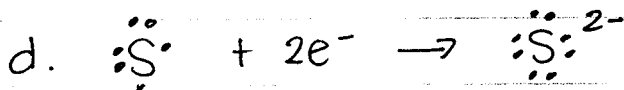
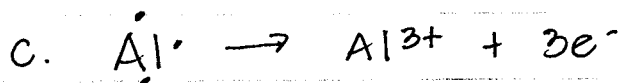
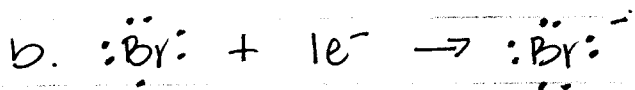
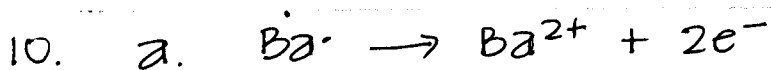
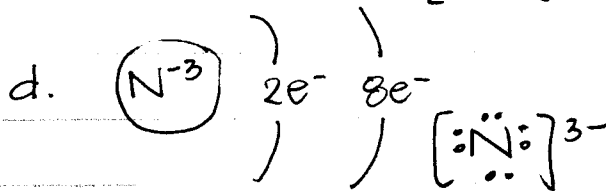
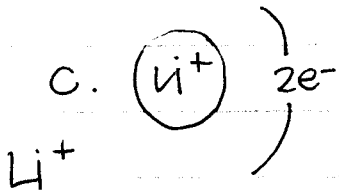
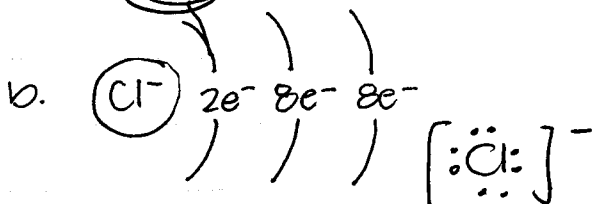
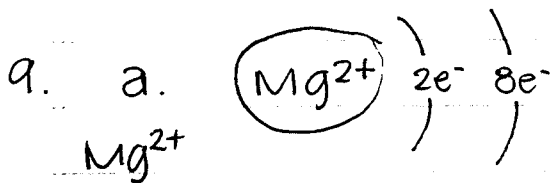
also: it does not matter what side the e^- are placed



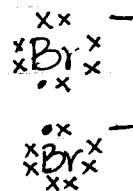
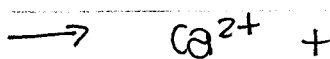
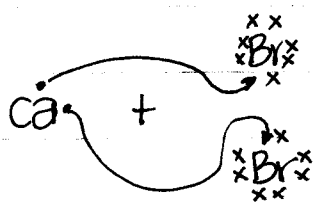
WEEK #6: (continued)

redo

(2)

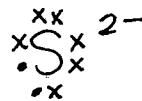
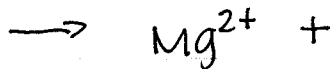
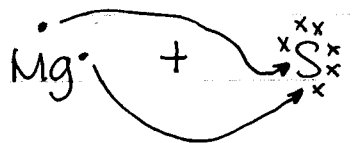


11.

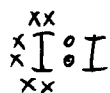
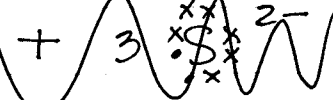
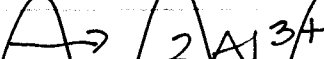
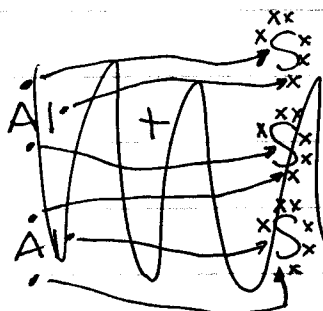


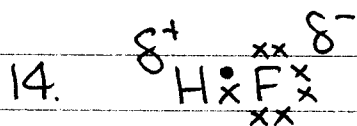
conservation of charge

12.



13.





16. a. Group 2A/2 b. Group 5A/15 c. Group 7A/17

20. a. 4 in NH_4NO_3 b. 4 in CH_3OH
 c. 8 in $\text{CH}_3\text{CH}_2\text{CH}_3$ d. 9 in $\text{Al}(\text{C}_2\text{H}_3\text{O}_2)_3$

22. $2\text{Al}(\text{C}_2\text{H}_3\text{O}_2)_3$ 2 Al's; 12^C's; 18H's; 12O's

24. a. KF ionic (metal + non-metal)
 b. IBr covalent; two different non-metals make this a polar covalent bond.
 c. MgO ionic
 d. F_2 non-polar covalent (2 atoms of the same non-metal bonded together)

26. a. H-O polar b. N-Cl polar c. P-Cl polar
~~b. Be-F ionic~~

28. skip

30. skip

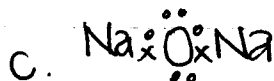
32. O and C can form double bonds



Unit 6 (continued)



b. skip



44. a. potassium ion (K^+) b. calcium ion (Ca^{2+})

c. zinc ion (Zn^{2+})

d. bromide ion (Br^-)

e. lithium ion (Li^+)

f. sulfide ion (S^{2-})

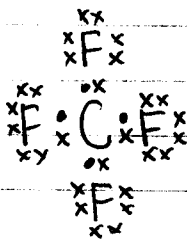
46. a. Na^+

b. Al^{3+}

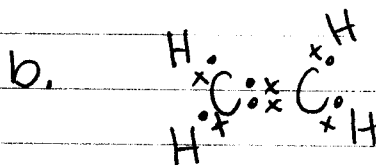
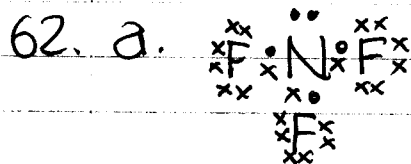
c. O^{2-}

d. Cu^{2+}

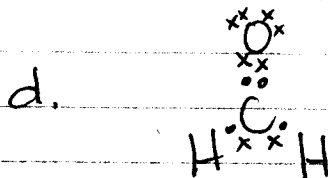
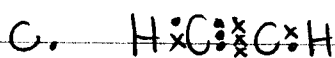
60. CF_4



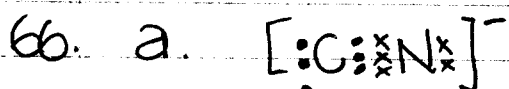
Carbon tetrafluoride



just try these

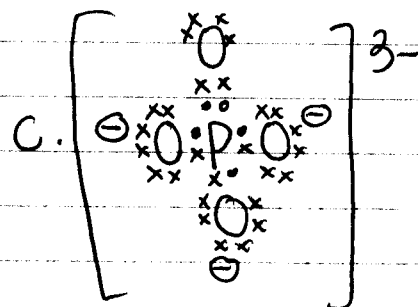


64. skip



↑
extra electron

b. skip



each of the 3 singly bonded O-P has 1 extra electron

