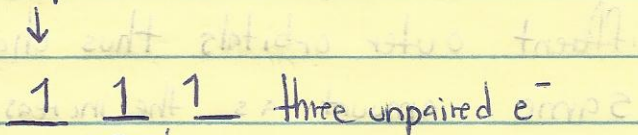
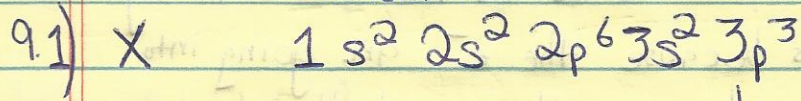


Unit 9 Problem Set



~~Ca~~  $e. Ca_3X_2$  Can accept  $3e^-$  to become  $X^{3-}$   
 This formulation whereas  $Ca \rightarrow Ca^{2+}$   
 results in a neutral species.

9.2) c. S

9.3) d. Cs

9.4) b. S

9.5) b. C because in adding an  $e^-$  you get half-filled p orbitals.  $\rightarrow$  Energetically stable.

9.6) b. Rb

9.7) b. As Same number of valence  $e^-$

9.8) e. Sr

9.9) d. los gases nobles

9.10) b. Across a period (from left to right) protons are added to the nucleus ~~but~~  $e^-$  increasing the nuclear charge but  $e^-$  are added to the same outer orbital not changing the overall  $e^-$  shielding. This increases