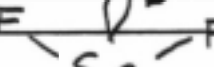
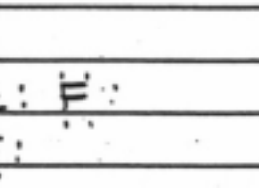
c. Ionization energy is the energy required to remove one electron. This process requires less energy in Br than in Se. This is because Bromine's electrons experience a greater pull from the nucleus than Selenium's electron's do. The ionization energy is greater for Se than Te because Se's electrons are closer to the nucleus and pulled tighter. Te's electrons experience shielding because they are in a higher energy level.

d. SeF_4

$6 + 28 = 34$ e-





SeF_4 is trigonal bipyramidal and does not experience much dipole moment. Each individual bond is only slightly polar but these polarities are cancelled out. SeF_4 is nonpolar.