

HW 10 – January 9, 2022

1. Write down electron configurations of the outer shells for the following elements:  $_{14}\text{Si}$ ,  $_{15}\text{P}$ ,  $_{16}\text{S}$ ,  $_{17}\text{Cl}$ ,  $_{34}\text{Se}$ ,  $_{52}\text{Te}$ . Three of these elements are chemically similar, which ones are these?
2. The following elements react: 1) Sb and N, 2) Al and Cl. Using periodic table of elements predict which one in each of these couples will be reduced (acquire electrons) and which one will be oxidized (lose electrons). Explain your answer.
3. Using periodic table predict the most common charge of the ions for the following elements: Li, Sr, Al, Ti and At. Explain your answer.