

Name _____ Period _____ Date _____

Periodic Trends – Ch. 5

(p. 140 - 154)

1. Put the following elements in order from smallest to largest atomic radius and explain why: C, O, Sn, Sr.
2. Put the following elements in order from lowest to highest first ionization energy and explain why: Al, Ar, Cs, Na.
3. Which of the following elements most likely has the highest melting point – I, Mo, Te? Explain why.
4. Explain how shielding contributes to the atomic radius trend within a group.
5. Why do magnesium, phosphorus, and zinc exhibit slightly higher first ionization energies than the general trend within each of their periods?
6. Which element in the third period is best represented by the six successive ionization energies listed below? Explain your reasoning.

1 st IE	2 nd IE	3 rd IE	4 th IE	5 th IE	6 th IE
577	1,815	2,740	11,600	15,000	18,310