

Honors Chemistry

Covalent Bonding Study Guide 1

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Name: _____ Date: _____

Period: _____

Instructions: Answer the following. Remember, you may have to use your textbook as a resource to answer some of these questions.

1. Differentiate between the following types of bonds (see page 180-181 and the index):

Ionic: _____

Nonpolar Covalent: _____

Polar Covalent: _____

2. In chapter 6, we discussed the trend in electronegativity on the periodic table. What is electronegativity and what does it help determine?

3. Determine the difference in electronegativity (ΔEN , see page 154 in textbook for chart) between each of the following pairs of elements:

a. Cl and Cl _____ b. H and F _____ c. O and N _____ d. K and F _____

4. For each of the pairs in question 3, circle the element symbol that has the larger draw on electrons in a bond between those elements

5. Rank the pairs of elements in question 3 in order of increasingly polar bonds that would form between them (e.g. $d < a < b < c$)

_____ < _____ < _____ < _____

6. Determine the number of valence electrons in each of the following atoms:

a. Sr _____ b. Br _____ c. Li _____ d. S _____ e. As _____

7. Explain what a Lewis dot diagram illustrates:
