Biochem- Chirality HW Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chap 15: Stereocenters: R,S designation Block\_\_\_\_\_\_\_\_\_\_\_\_ #\_\_\_\_\_\_\_\_\_\_\_

**Use your text & PPt to complete the following. \*Refer to Section 15.3 & Example 15.4 to do #1.**

1. Identify all asymmetric centers in the following compounds and then indicate how many stereoisomers are possible (2n).





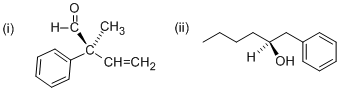
1. Rank the following groups in order of decreasing priority (1 = highest, 4 = lowest).
2. –F, -NH2, -CH3, -OH
3. –NH2, -CH2NH2, -CH3, -CH2NHCH3
4. –COOH, -CH2OH, -H, -CHO
5. In the R, S system, which of the following functional groups has highest priority?
6. alkyl b. amino c. hydroxyl d. thiol
7. Which of these are R and which are S?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| . |  |  |  |





1. What are the R/S configurations at the following stereocenters?



1. Refer to Example 15.4 in text
   1. What is a diastereomer?
   2. Problem 15.4:
      1. Which are pairs of enantiomers?
      2. Which are diastereomers?