| Names: | Section: |
|------------|----------|
| 1 (011105) | 50000000 |

Chem 226 / Dr. Rusay Stereochemistry I: Worksheet #9

Circle all of the chiral carbon atoms in each of the following structures. Classify the compounds in each of the pairs as **identical**, **constitutional isomers**, **enantiomers**, or **diastereomers**. Circle any structure that has an internal plane of symmetry. Using the priorities established for E- and Z- isomers assign a **configuration** (*R*- or *S*-) to each of the stereocenters (chiral carbon atoms). Make molecular models to confirm your assignments if necessary.

| | | | Classification |
|----|--|---|----------------|
| a. | O > C − OH H ► C − OH CH3 | H CH ₃ OH | |
| b. | HO CH3 H | CI CH ₃ CH HOW H | |
| c. | HO CO_2H H",C C'' ,OH CO_2H | HO ₂ C C C CO ₂ H | |
| d. | CH ₃ H Br.,,C C,,,CH ₃ Br | Br., CH ₃ Br., Br H | |
| e. | HO OH | HO H | |
| f. | CI I CH ₃ CH ₂ CH ₂ CH ₃ | CH ₃ H C''''CH ₂ CH ₂ CH ₃ CI | |