R/S Configuration Practice Worksheet

Ten carefully checked problems • Organic Chemistry • Student copy

Name: _____ Date: _____

Show your reasoning. Use complete chemical notation and units when applicable.

1. For four groups OH, CH_2CH_3, CH_3, H, rank CIP priority.

2. With priority 4 away, 1→2→3 clockwise is which label?

3. With priority 4 away, 1→2→3 counterclockwise is which label?

4. What if priority 4 points toward the viewer?

5. Which ranks higher: Cl or O?

6. Which ranks higher: CH_2Br or CH_2OH?

7. Which ranks higher: CH_2CH_3 or CH_3?

8. Can a carbon with two identical methyl substituents be an R/S center?

9. Does R necessarily mean (+) optical rotation?

10. What does the word enantiomer mean?