Problem Set #7
Solutions

1. See the text Section 7.7f

2. [Drawings of organic molecules]

3. Just one step, one ≠
   - Exothermic Sn2 process
   - Good nucleophile
   - Good base
   - 1° alkyl halide
Why did I draw the + to look more like s.m.t. than prod?

4

\[ \text{H}_3\text{C} - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3 \quad \overset{\text{H}_2\text{O}}{\longleftrightarrow} \quad \text{H}_3\text{C} - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3 \]

(R)-2-iodopentane

\( \alpha \neq 0 \)

(s)-2-iodopentane

equal & opposite rotation

Over time, iodide ion racemizes the (R)-2-iodopentane via an SN2 substn process.