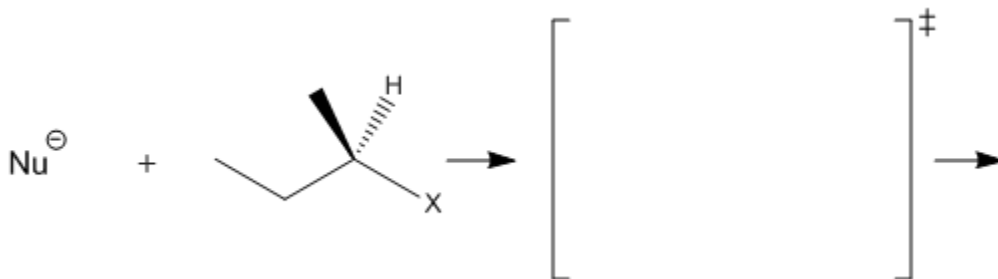


## CONCEPT: S<sub>N</sub><sup>2</sup> REACTION

□ A negatively charged nucleophile reacts with an *accessible* leaving group to produce substitution in one-step.

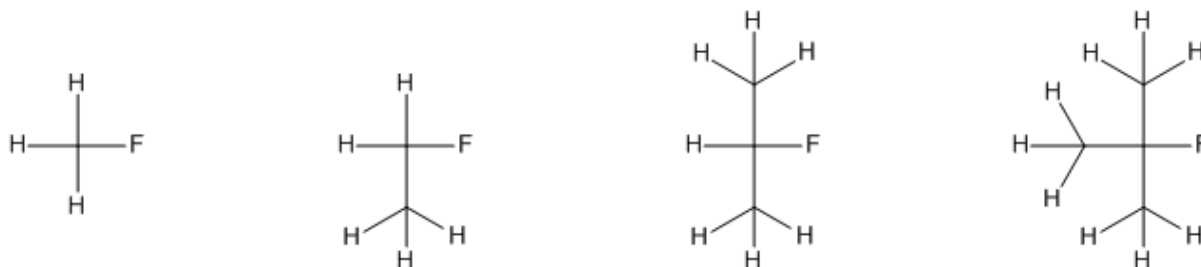


### S<sub>N</sub><sup>2</sup> Properties (Circle One)

- Nucleophile = Strong / Weak
- Leaving Group = Unsubstituted / Highly Substituted
- Reaction coordinate = Transition State / Intermediate
- Reaction = Concerted / Two-Step
- Rate = Unimolecular / Bimolecular
- Rate =  $k[\text{RX}]$  /  $k[\text{Nu}][\text{RX}]$
- Stereochemistry = Inversion / Retention / Racemic
- Nickname = \_\_\_\_\_

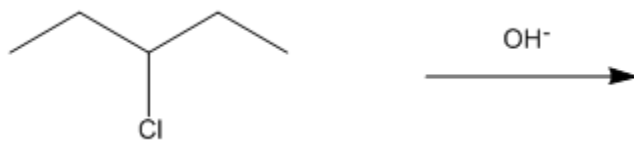


**EXAMPLE:** Rank the following alkyl halides in order of reactivity toward an S<sub>N</sub><sup>2</sup> reaction.



**PRACTICE:** Provide the mechanism and final products for the following reactions.

a.



b.

