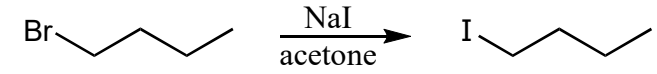
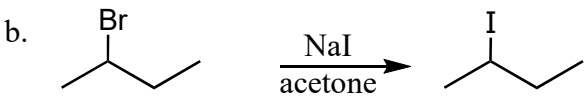
4A) (10 pts) For each of the following pairs of reactions, indicate which one will be faster and briefly explain why. If you expect no significant difference in the reaction rates, say so. **No explain = no credit.**

a.



b.



mechanism name?
which is faster
(a, b or neither)?
explain.

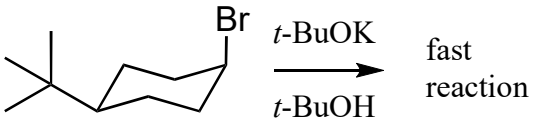
a.

b.

mechanism name?
which is faster
(a, b or neither)?
explain.

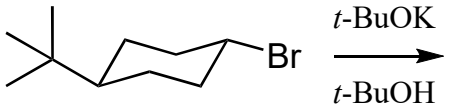
4B) (6 pts) Explain why reaction of **A** with *tert*-butoxide is about 500 times faster than **B**. What mechanism is taking place? Use appropriate drawings to support your answer.

A



fast reaction

B



slow reaction