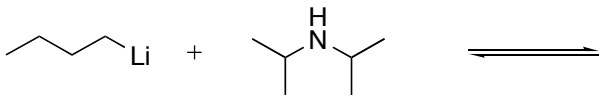
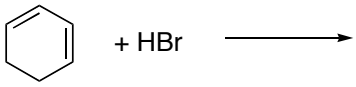
Chem 2062 Spring 2005
Ch 15 Group work

1. When *n*-butyllithium and diisopropylamine are mixed together, what products will be formed on the other side of the equilibrium arrow?

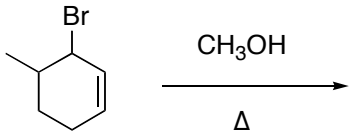


   Identify the stronger and weaker acids and the stronger and weaker bases in the system. (Hint: alkanes have pKa values around 55, amines around 35) In which direction will the equilibrium lie?

2. Draw the *two* products that can be formed when 1,3-cyclohexadiene is treated with HBr. Show the important carbocation intermediates.



3. Draw the *two* substitution products formed when 2-bromo-3-methyl-1-cyclohexene is boiled in methanol. Show the important intermediate.



4. Draw the important resonance structures and the molecular orbitals for the allyl carbanion shown below. Which two carbons share the negative charge? Which carbon holds a greater partial negative charge than the other?