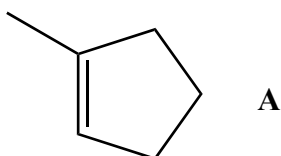


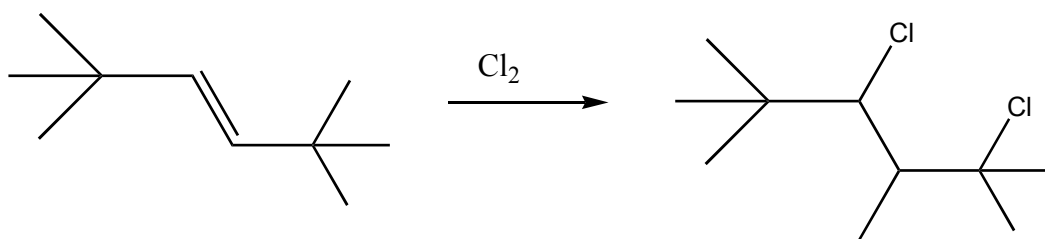
Alkanes, Alkenes and Alkynes Tutorial Problems
Lectures 5 and 6

1. Give the structure and stereochemistry (if any) of the product formed in the reactions of each of the following reagents with cyclopentene, **A**.



- (a) HBr
- (b) HBr in the presence of peroxides
- (c) Iodine monochloride
- (d) D₂ in the presence of Pd/C

2. On addition of chlorine, di-*tert*-butylethene, **B**, gave the 2,4-dichloro compound **C** instead of the expected product. Write a mechanism for this transformation.



3. Give the reagents for the following reactions:

