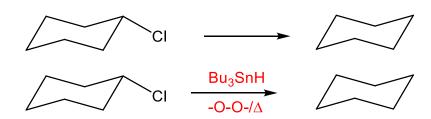
Exercise 10: - Synthesis of alkanes

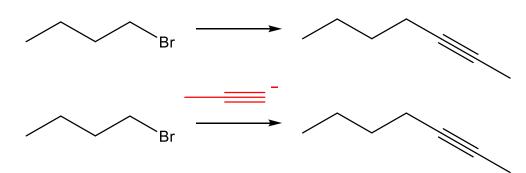
1. What reagents would you use to effect the following conversions?

a.



b.

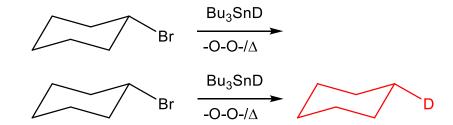
C.



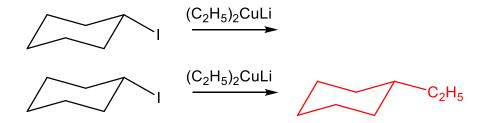
d.

2. Give the major organic product(s) of the following reaction:

a.



b.



c.

3. Give a synthesis of the following compounds using the given starting material and any other organic and/or inorganic reagents that you care to use:

a.

$$(CH_3)_3CH \longrightarrow (CH_3)_3C$$

$$(CH_3)_3CH \longrightarrow (CH_3)_3CBr$$

$$(CH_3)_3CBr \xrightarrow{1. Li} ((CH_3)_3C)_2CuLi$$

$$((CH_3)_3C)_2CuLi \longrightarrow (CH_3)_3C$$

b.

