

PLEASE STAPLE! IF you work with a group of students submit ONE Worksheet with all names for a group grade (print):

---

---

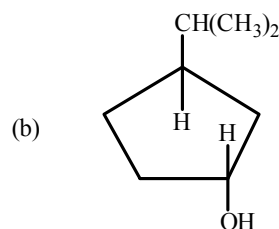
CHEM 344 Organic Chemistry II – Spring 2012

Booster Points \_\_\_\_\_ (10 max)

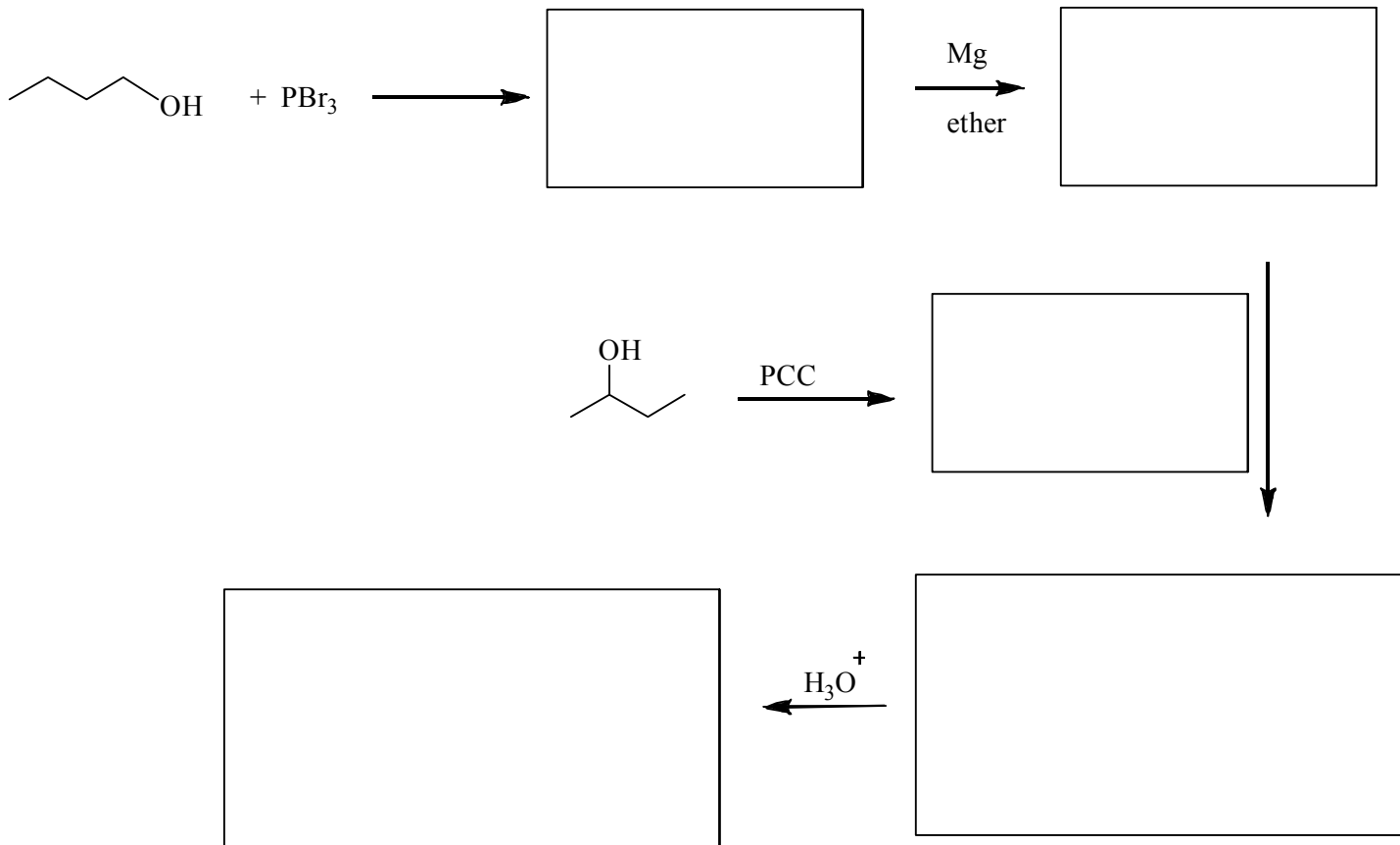
**Booster #2: Due Friday, February 3 at 8:00 AM (I will not accept late worksheets).** Complete the following worksheet using the course text or any other resources available to you. You may work together, with the names of all students included on **ONE** sheet and turned in for a group grade.

**(1) Nomenclature.** If a name is given, draw the correct chemical structure. If a structure is given, give the IUPAC name.

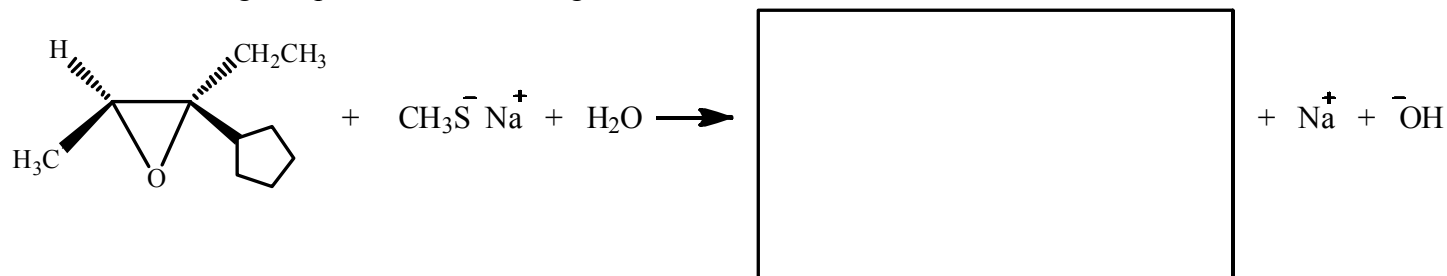
(a) (R)-1-bromo-5-methyl-3-hexanol



**(2) Multistep Grignard Synthesis.** Complete the multistep Grignard Synthesis below by writing the structure of the organic products from each step in the boxes.



**(3) Stereochemistry.** Complete the following reaction (SN2 epoxide ring opening) by drawing the correct 3-D structure of the organic product, and labeling each chiral center as R or S.



**(4) Mechanisms.** Write a complete mechanism that explains the formation of all products in each of the balanced net equations below. Your mechanism must consist of: (1) a series of numbered, balanced chemical equations, and (2) curved arrows to show electron pair movement. Use an additional sheet of paper is needed.

