

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

Key

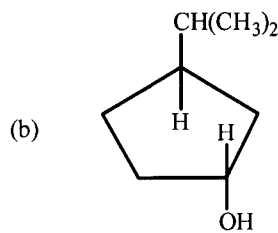
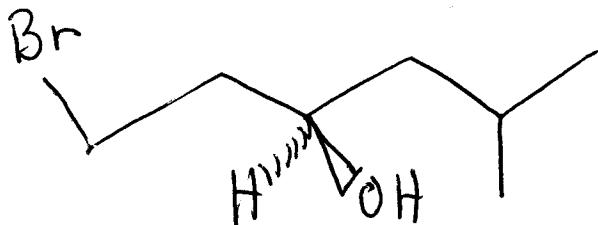
CHEM 344 Organic Chemistry II – Spring 2012

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.

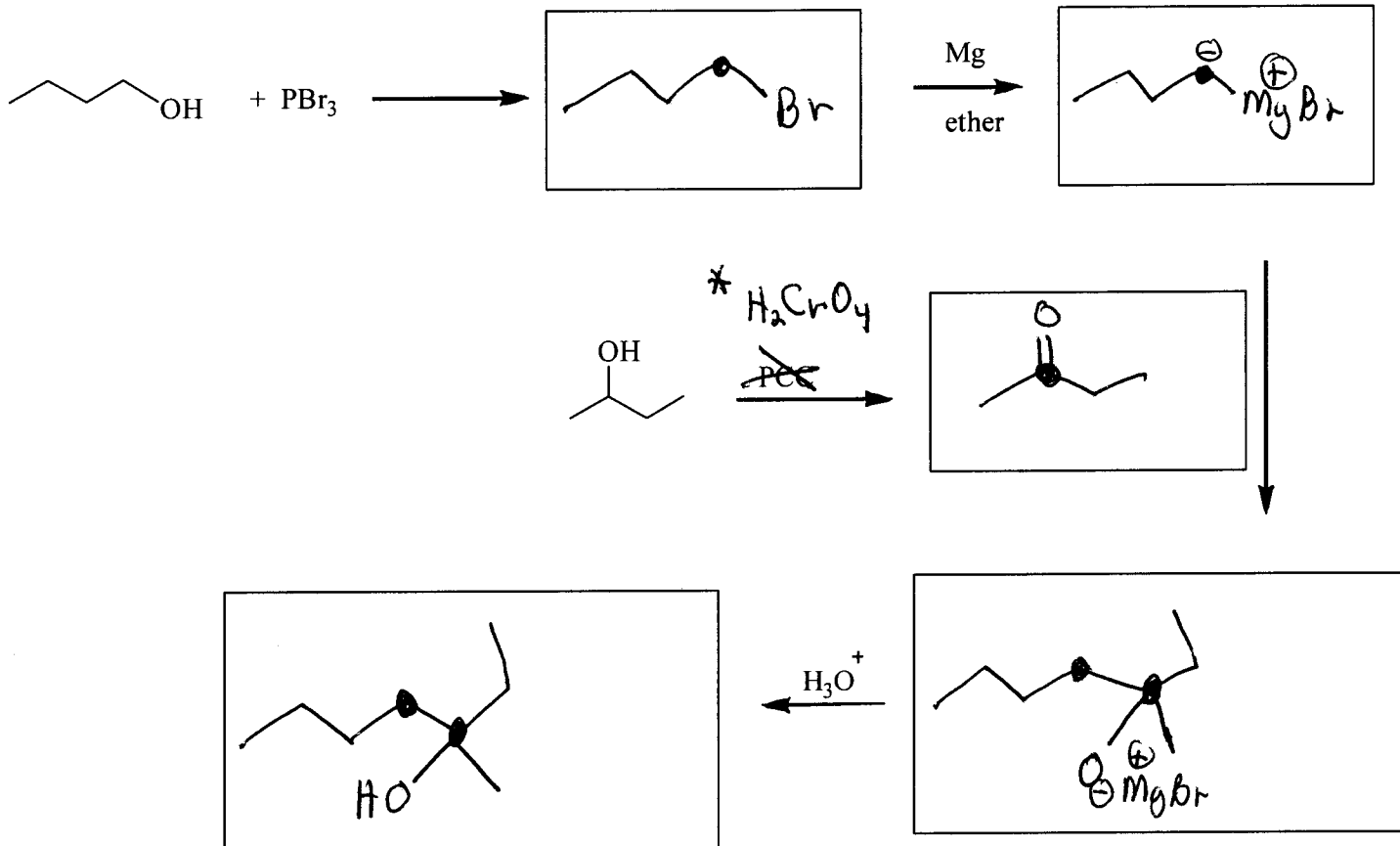
(1) Nomenclature. If a name is given, draw the correct chemical structure. If a structure is given, give the IUPAC name.

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

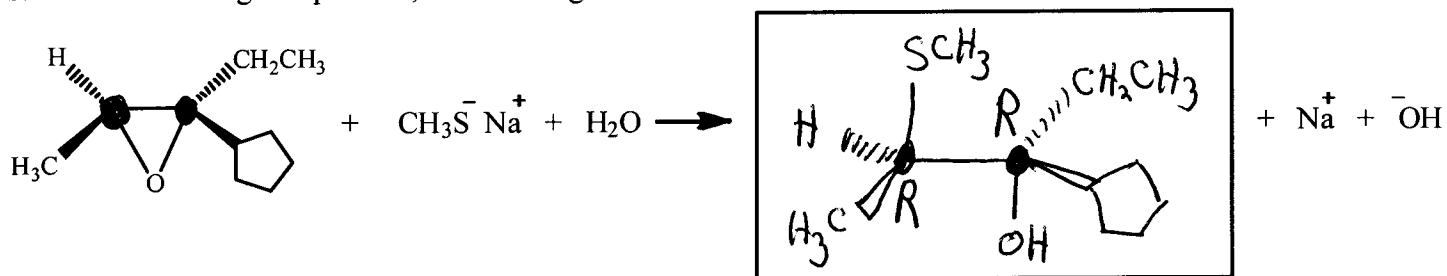


trans-3-isopropylcyclopentanol

(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.

