

Name.....

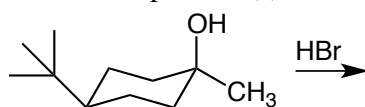
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Chem. 121, Sect 008, Quiz 3

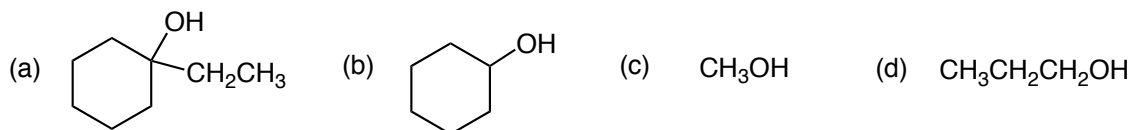
Fall, 2011, 50 points

1. Find all stereoisomers of 2-bromo-3-pentanol and assign the absolute configuration (R or S) to each chirality center. Be sure to number the carbons. (15 pts)

2. Give the product(s) formed in the following reaction. (10 pts)



3. An unknown alcohol did not react with chromic acid (H₂CrO₄) or potassium permanganate (KMnO₄) or with KI/I₂ but did react immediately with ZnCl₂/HCl. Which alcohol best fits these results? For partial credit, indicate the results of the each the reactions. (10 pts)



4. In the preparation of 1-bromobutane from 1-butanol, aqueous sulfuric acid and sodium bromide (a) a dangerous gas is also produced. What is it and how is it formed? (Show the reaction.) (b) How do we prevent it from escaping into the lab? (c) The stockroom ran out of sulfuric acid. The teaching assistant recommended that the students use aqueous hydrochloric acid instead. Would the reaction still work? Explain your answer. (d) Would there be more than one produced? Explain and if yes show the other product(s).