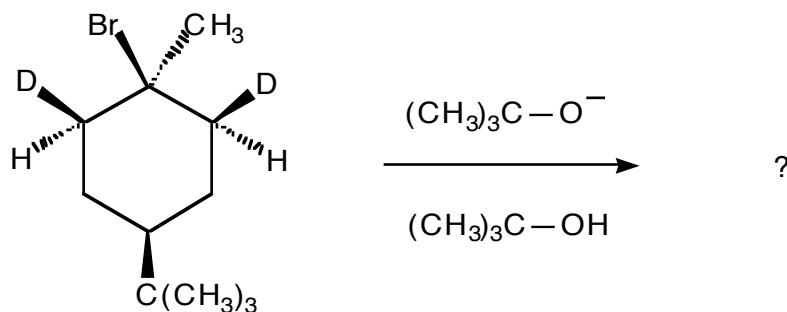


Problem 62, Chemistry 301X-2006

(a) Predict the major product when the following compound is treated with strong base, such as *tert*-butoxide:



b) Compounds **1** and **2** share the two possible diastereotopic structures and give different alkene product mixtures when treated with sodium ethoxide in ethyl alcohol. Assign structures to **1** and **2**, and explain these results mechanistically. TsO^- = Leaving Group. Hint: Think 3-D!

