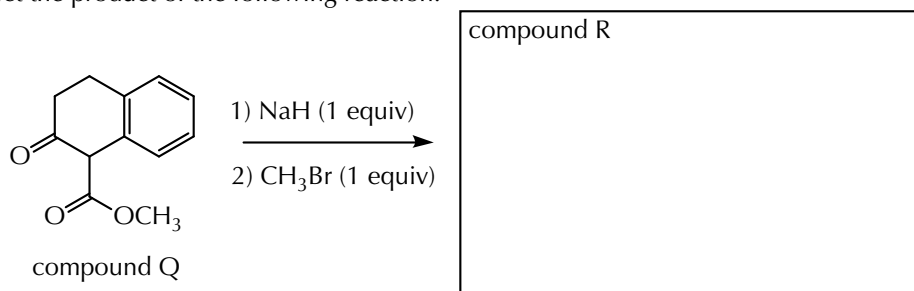
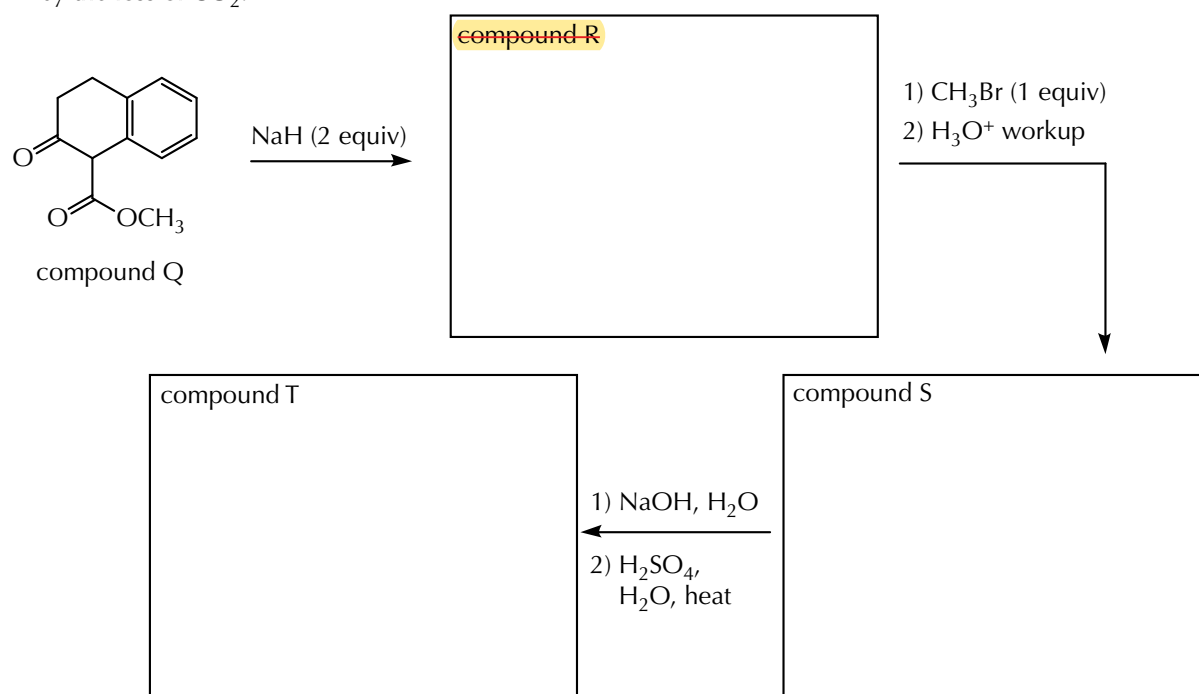


14.62 Complete the following, as directed. Pay attention to the indicated stoichiometry differences.

(a) Predict the product of the following reaction.



(b) In another version of this experiment, two equivalents of NaH are used with starting material Q, instead of only one equivalent, and then followed by one equivalent of CH₃Br. After the H₃O⁺ workup, a different product (S) was obtained. Compound S is a structural isomer of product R. Finally, when compound S is treated with NaOH/H₂O, then heated with aqueous H₂SO₄, compound T was obtained, and its formation was accompanied by the loss of CO₂.



14.63 The following reaction initially generates an ionic intermediate. This intermediate then continues to react (with no other reagents involved) to generate the final product as a mixture of stereoisomers. Draw one of them.

