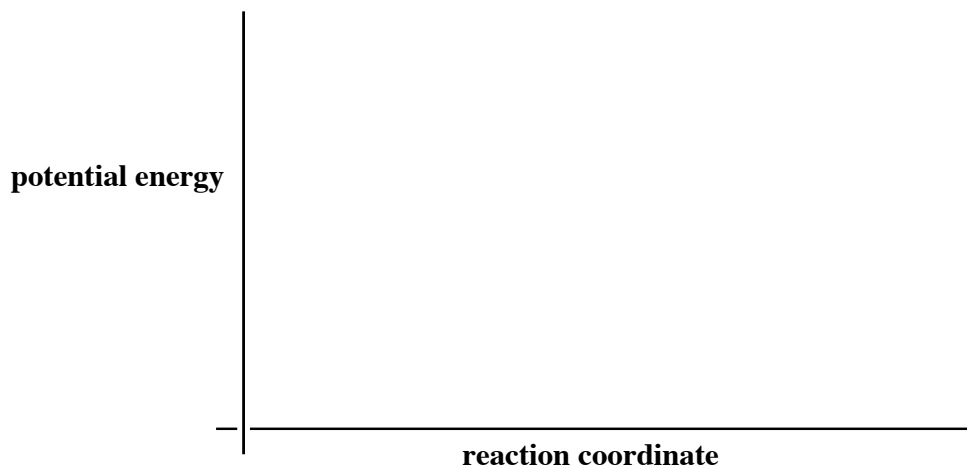
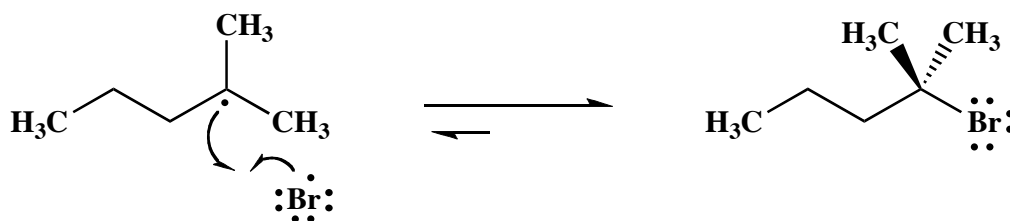


## Quiz #2

1. (10 points)

Consider the following termination step in the free-radical bromination of 2-methylpentane. Use the Hammond postulate to characterize the transition state for this step in terms of timing, energetics, and structure. Explain your reasoning clearly. Draw an annotated reaction- energy diagram (graph of potential energy versus reaction coordinate) to illustrate your answer.



2. (10 points)

Place a star next to the asymmetric carbon in the following carbonyl compound. Use the IUPAC (Cahn-Ingold-Prelog) rules to determine whether this asymmetric carbon has an (*R*) or (*S*) configuration. Write and analyze the relevant triads to show your reasoning clearly.

