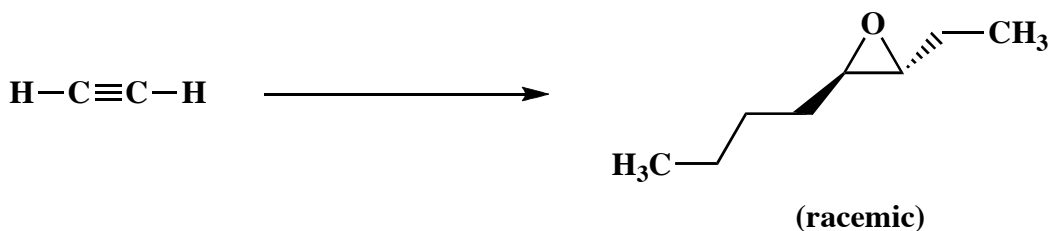


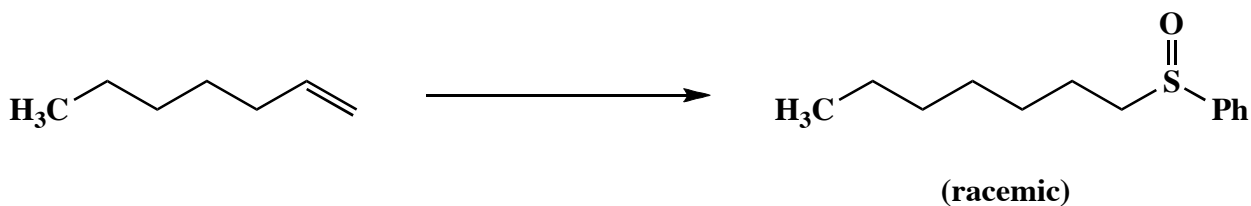
Problem Set 3

Draw the specific reagents necessary to effect the following three transformations. Specify relative stoichiometries of reagents, distinguish individual steps clearly, and draw each stable synthetic intermediate compound (i.e., the major organic product of each reaction). Do **not** draw mechanisms. Finally, explain why each target is racemic. In particular, state which reactions in your syntheses yield racemic products and why those outcomes are expected.

1.



2.



3.

