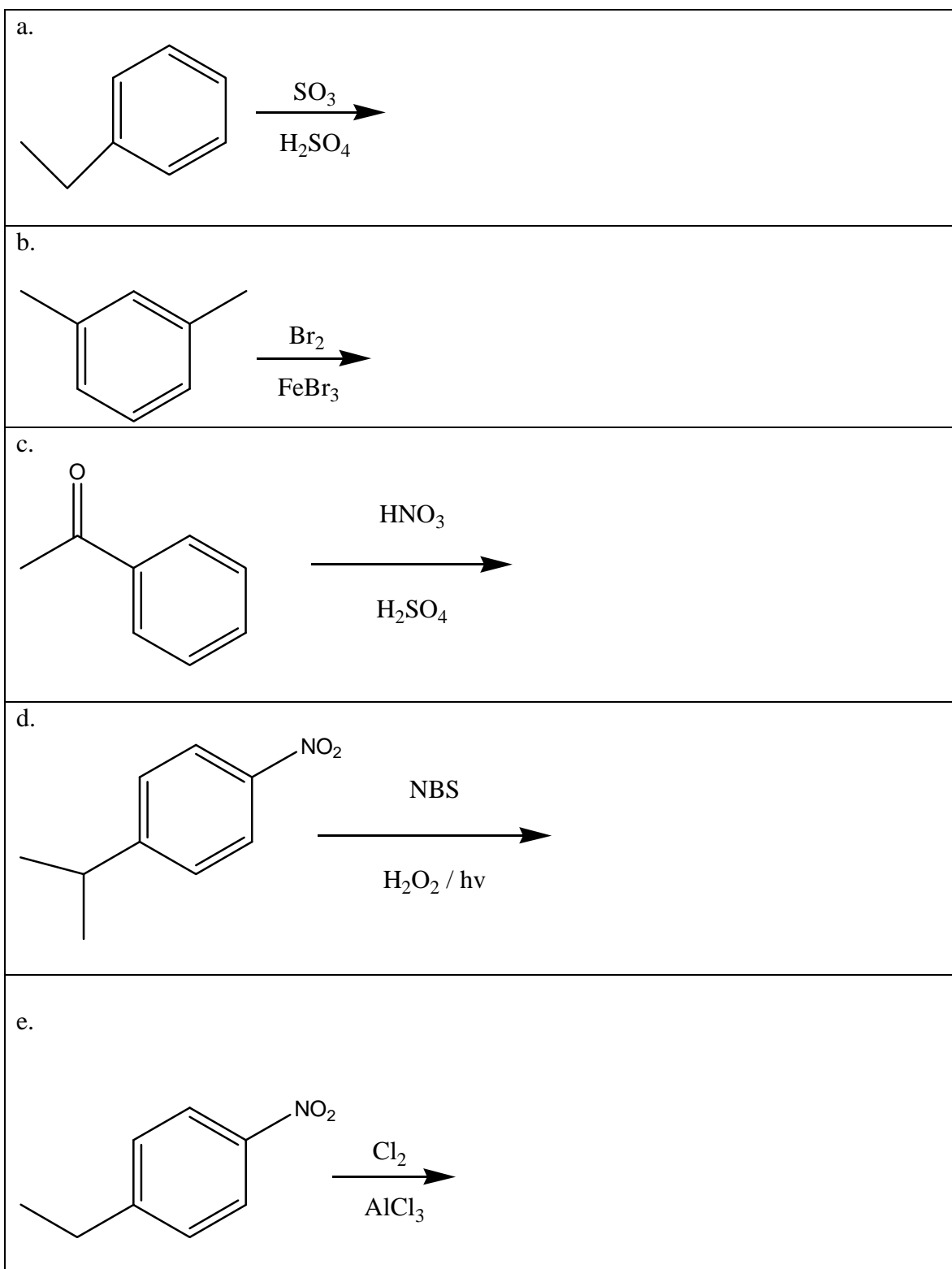
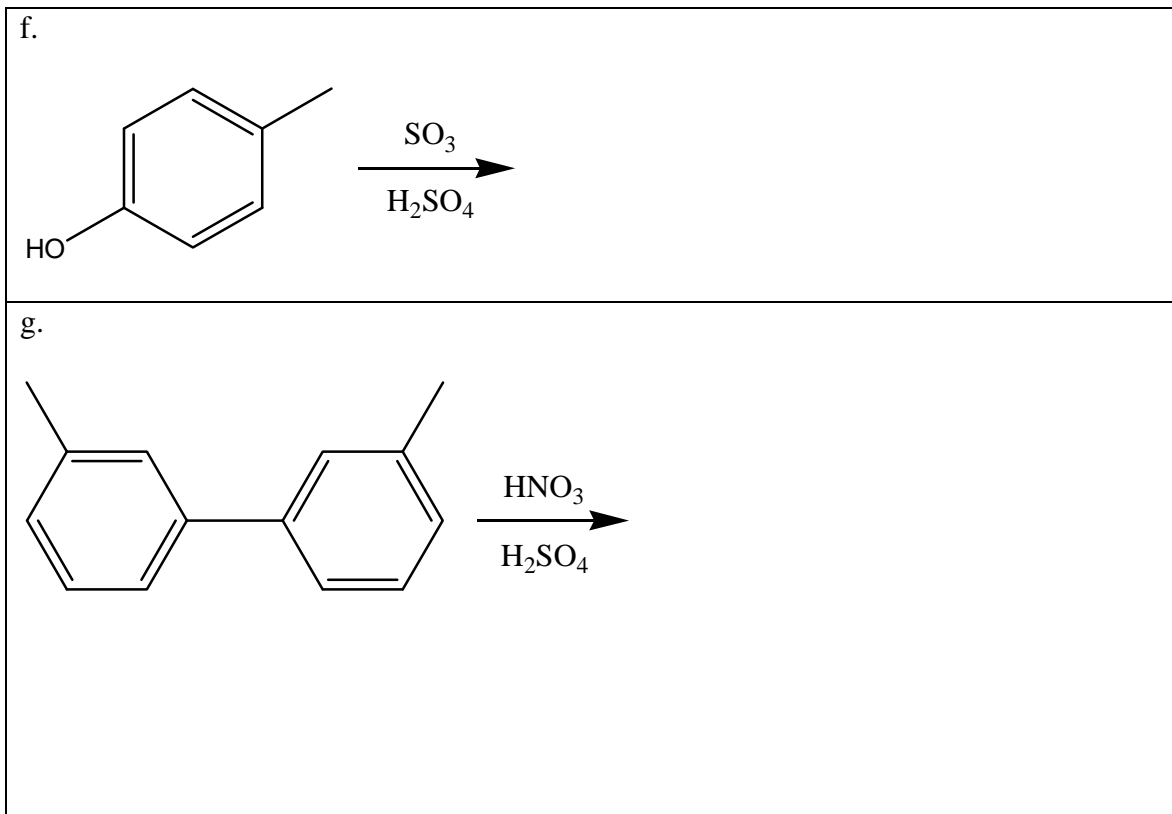


**Chapter 17 Part I Worksheet**

1. Complete the following reactions:



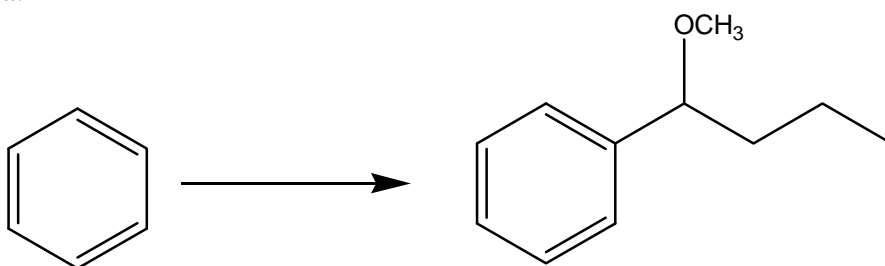


2. Phenoxide can undergo EAS rapidly to form the tribromide product. Draw a mechanism showing the reaction of phenoxide to form the para-substituted product. Why does this type of reaction occur so rapidly?

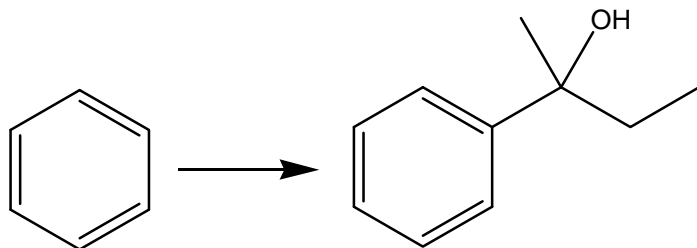
3. In a strongly acidic mixture of nitric and sulfuric acid, aniline is nitrated in the meta-position. Draw a mechanism explaining why this occurs. Assume that the solution is neutralized at the last step by the addition of a base.

4. Suggest a short synthetic route for carrying out the following transformations in good yields.

a.



b.



c.

