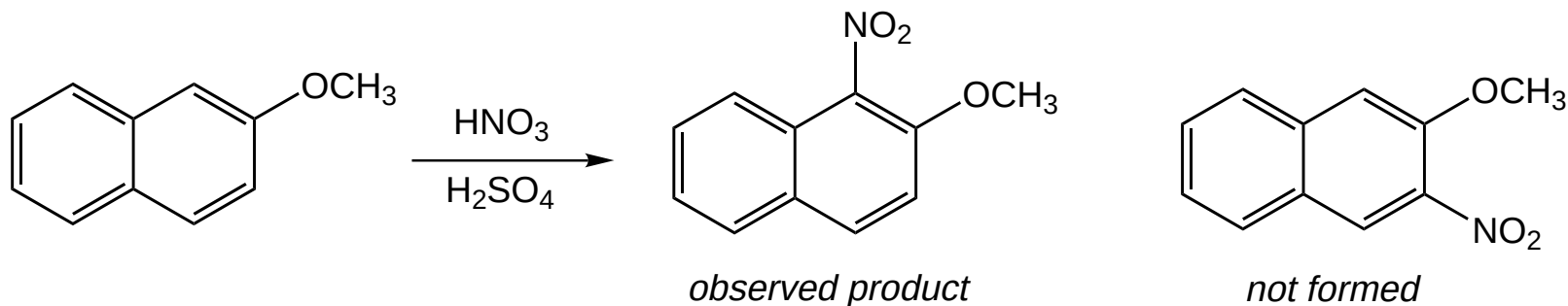


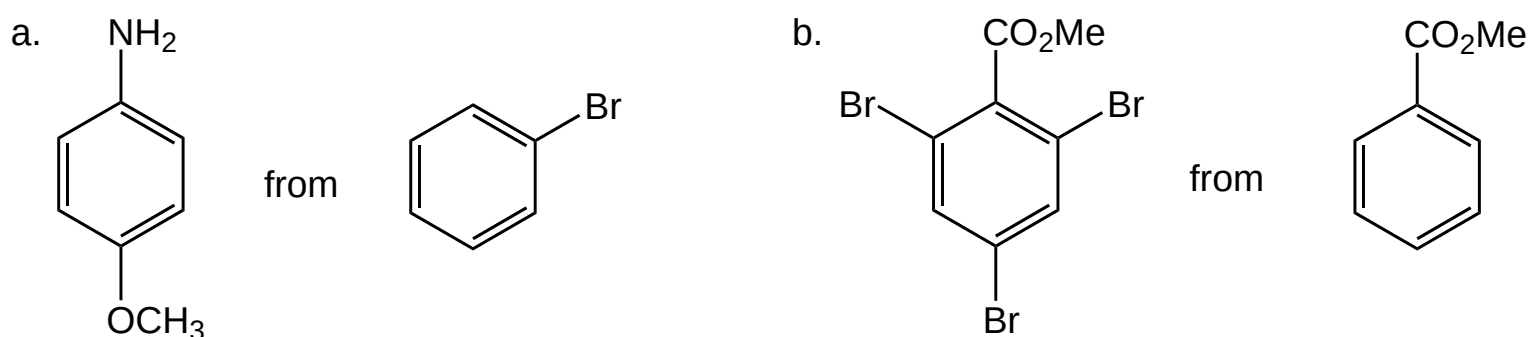
Problem Set 4 - Electrophilic and Nucleophilic Aromatic Substitution

Due in class Wed. February 17

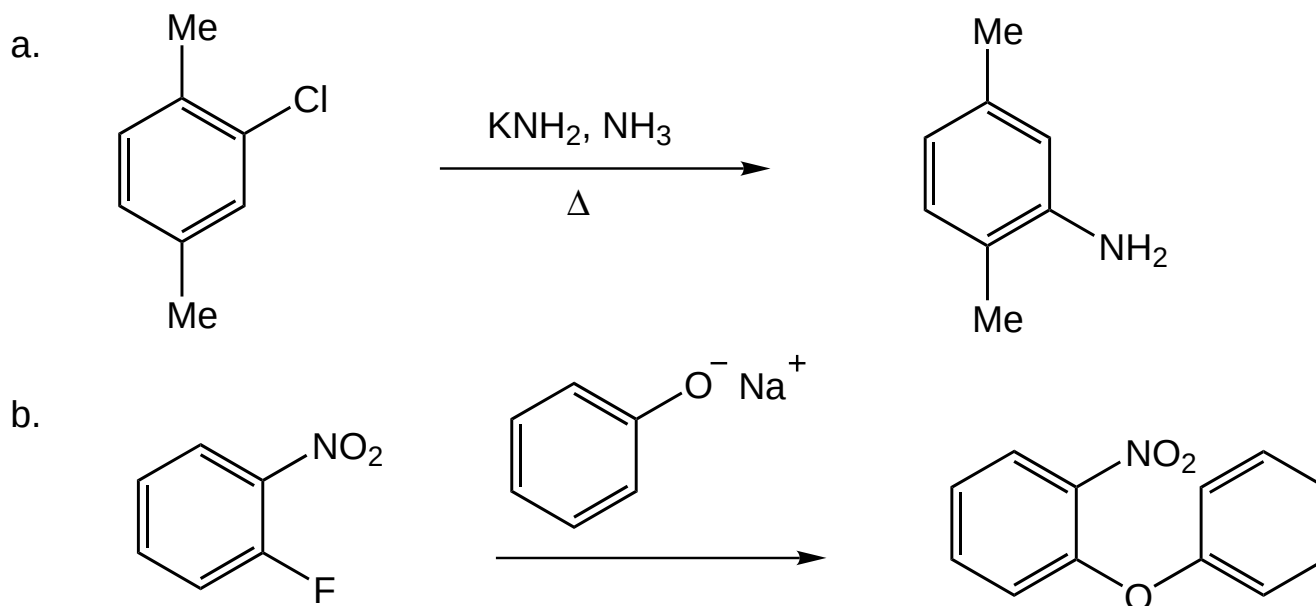
1. Nitration of 2-methoxynaphthalene gives only one of the two possible *ortho* products (the *para* position is unavailable). In fact, a steric argument would have resulted in the wrong prediction. Provide an explanation for the selective formation of the observed product.



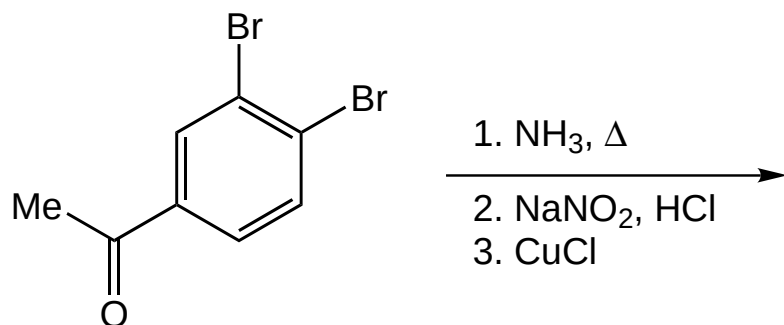
2. Propose syntheses for the following compounds:



3. Provide detailed mechanisms for the following transformations:



4. Predict the product of the following reaction sequence:



(Relevant book problems:
14.34, 14.35, 14.44a, 14.46, 14.48)