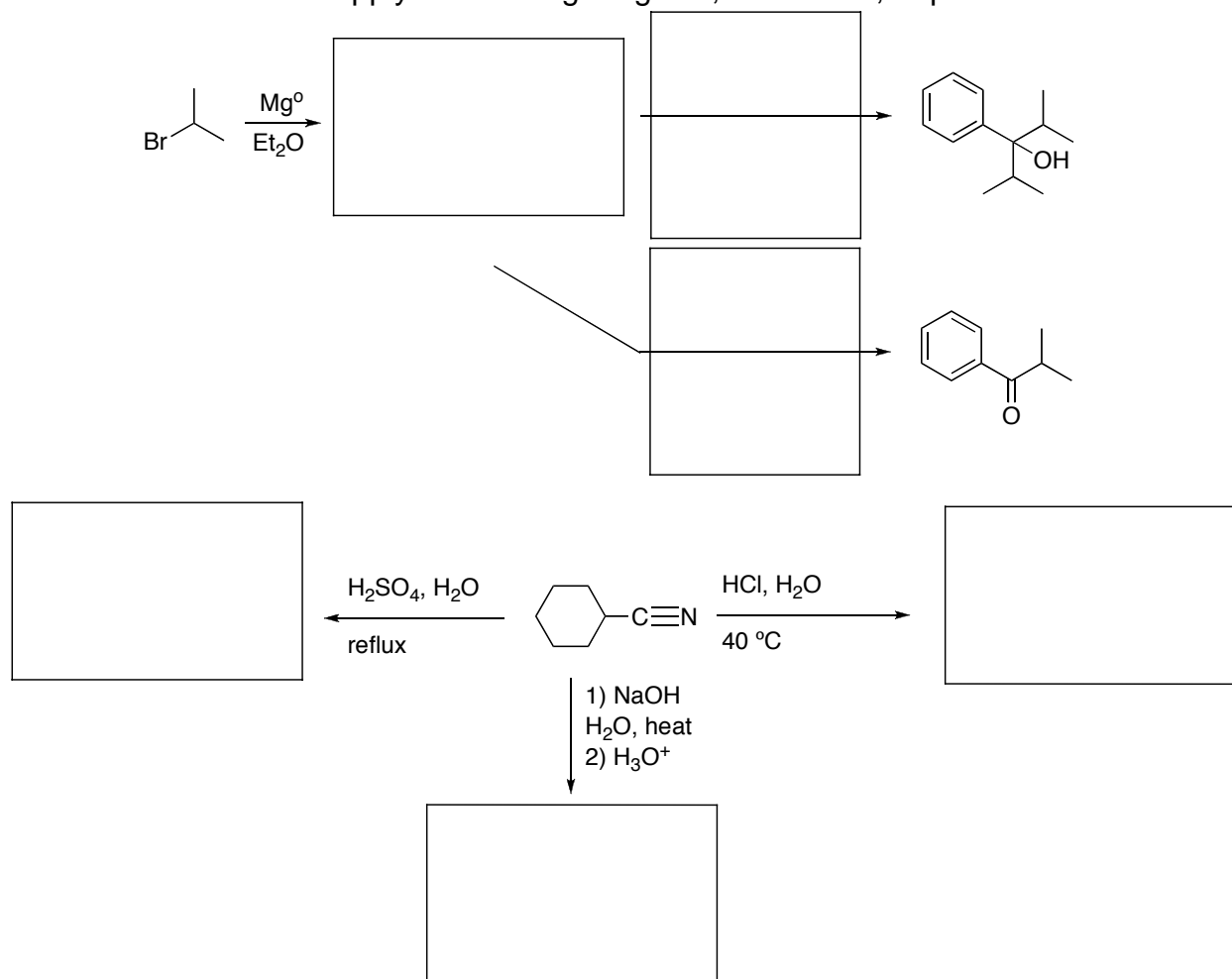
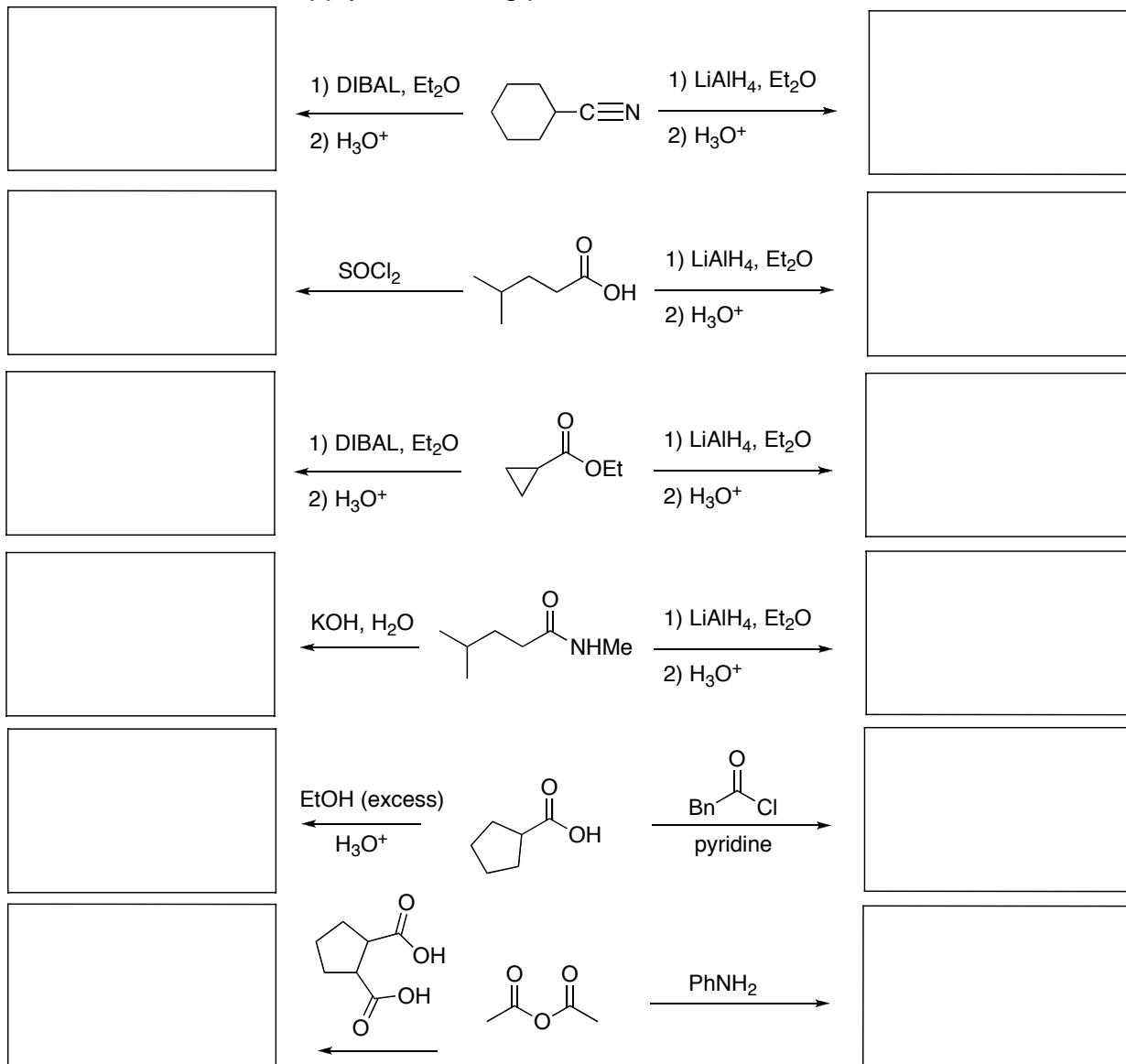


1. Fill in the boxes to supply the missing reagents, substrates, or products.



2. Fill in the boxes to supply the missing products.



3. Provide arrow pushing mechanisms for the transformations shown below. Include all lone pairs and formal charges.

