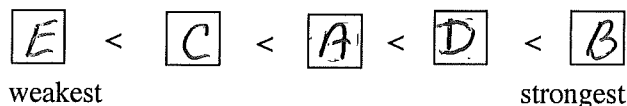


# Key Quiz 4, 2011

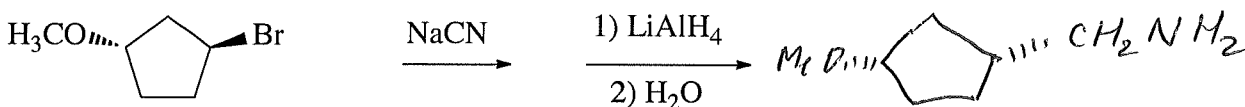
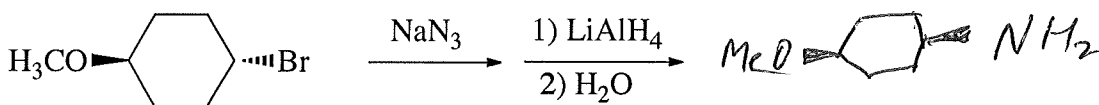
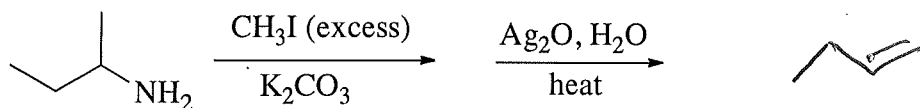
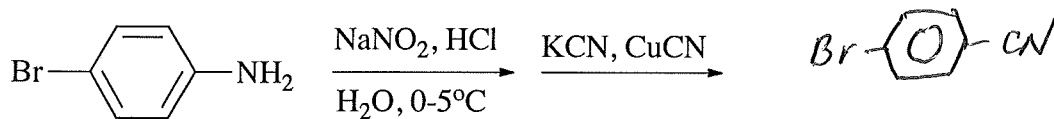
1. (5) Arrange the following compounds in order of increasing basicity (put letters in the boxes; 1 pt each box):

- A 2,4-dimethylaniline  
 B diethylamine  
 C 4-nitroaniline  
 D ammonia  
 E benzamide

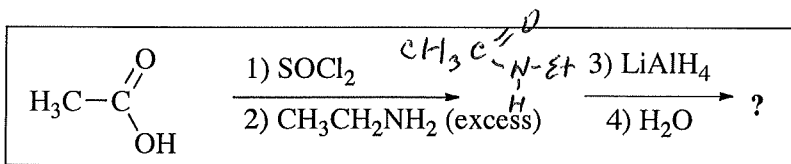


5

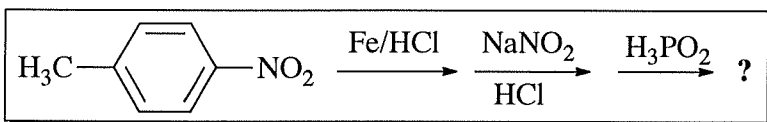
2. (8) Draw the products in the following reactions (2 pts each):



3. (6) Circle the name of the major organic product obtained from the following sequence of reactions:

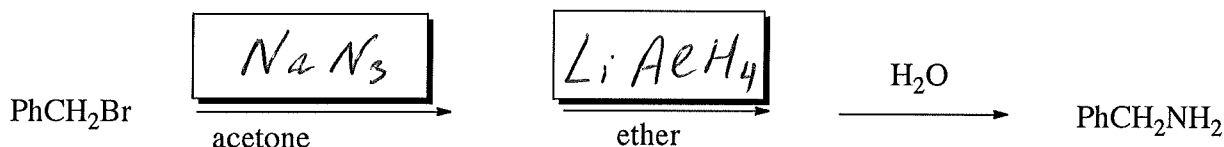
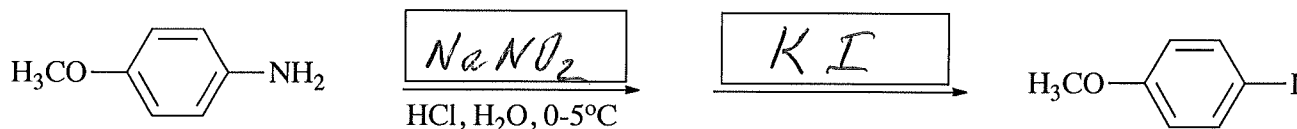
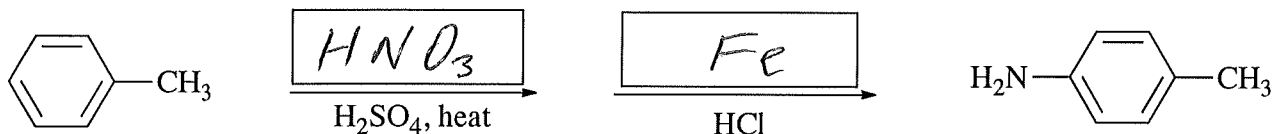


- N,N*-diethylacetamide diethylamine  
*N*-ethyl-1-propanamine ethanamine  
 2-(*N,N*-diethylamino)-1-ethanol



- phenol benzene nitrobenzene  
 aniline toluene benzoic acid

4. (6) Show the reagents (in boxes) that can be used to convert the reactant to the indicated product:



6  
 25