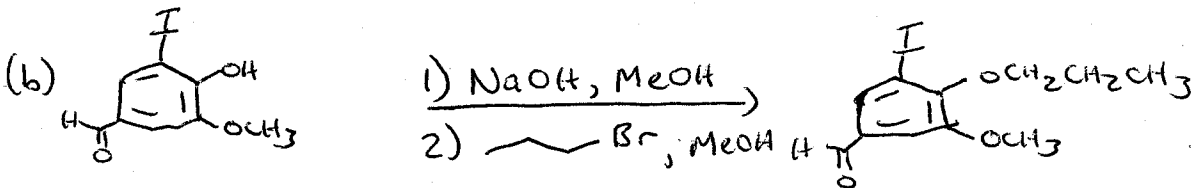
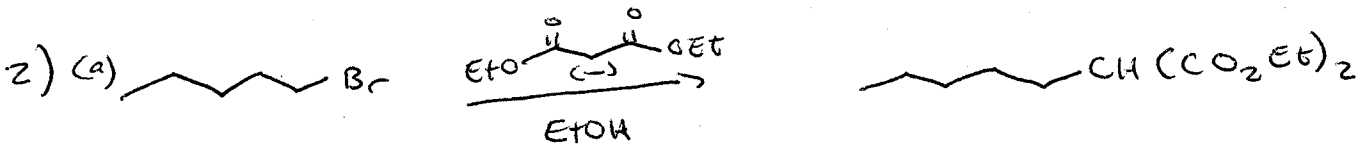
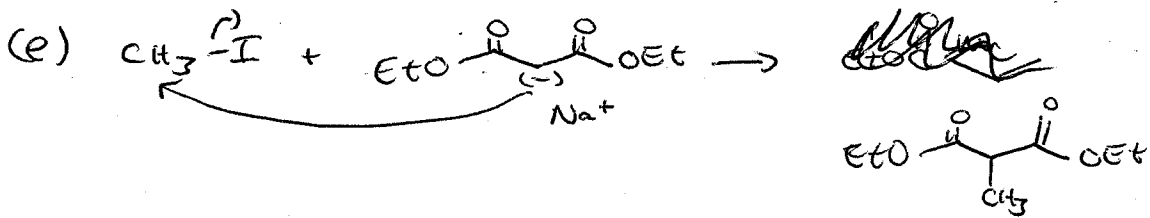
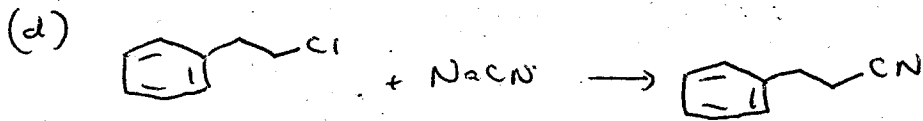
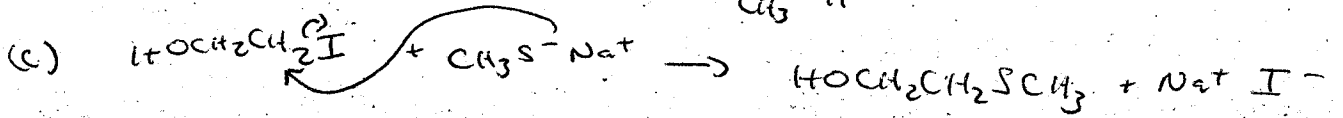
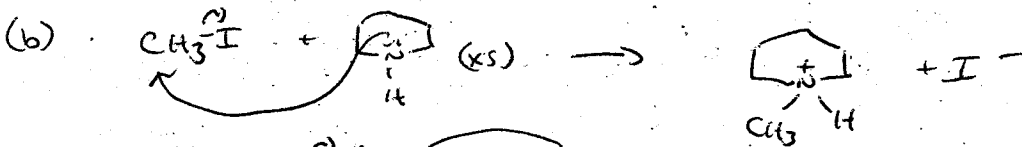
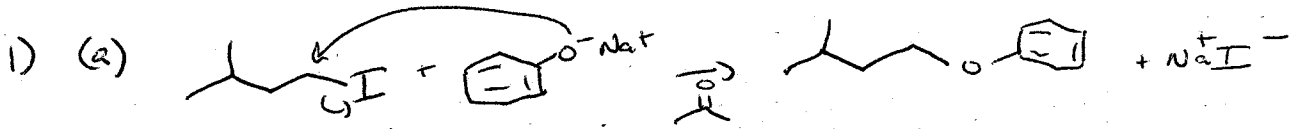
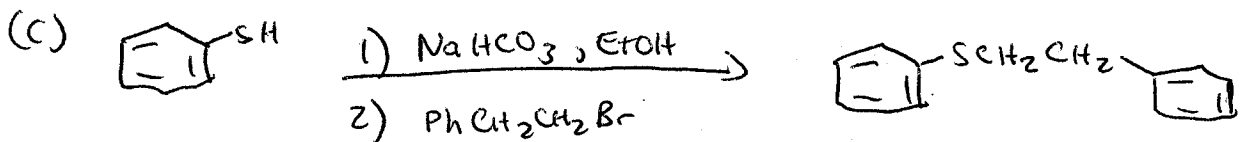


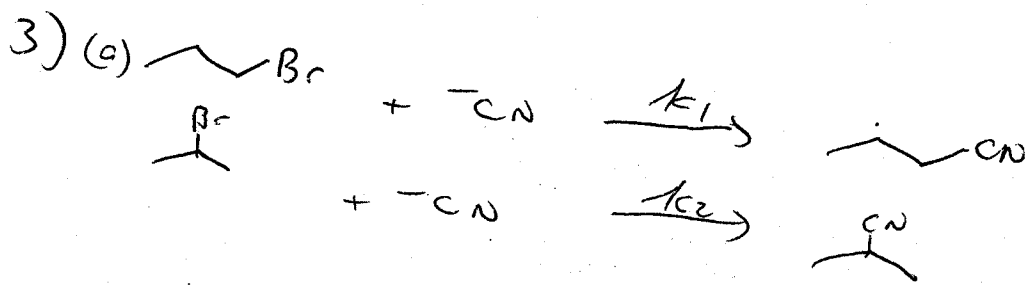
# Answer key #6



(1<sup>st</sup> step removes a proton from phenol, Oc1ccccc1 → making it a better nucleophile. The second step is the S<sub>N</sub>2 rxn by the anion on the alkyl halide

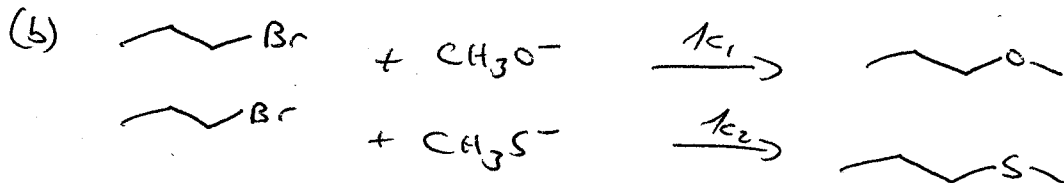


same logic as above



$$k_1 > k_2$$

attack occurs  
 Rxn #1 at a 1° halide, #2 is at a 2°  
 halide → more steric hindrance at a 2° carbon  
 than a 1° carbon



Rxn 2 is faster - better Nu<sup>-</sup>!

S is lower in PT than O and therefore  
 more polarizable → better Nu<sup>-</sup>

