

Chemistry 218, Problem Set 7

20.2-20.6, 20.8-20.11, 20.14, 20.16-20.18-20.24, 20.26-20.28, 20.37-2.38 (except f, i), 20.40 (a-j), 20.43 (a-b, d-e), 20.44 (c,d), 20.45, 20.46 (a, b, d), 20.48 (a-f, h, i), 20.49 (a-c, e, h), 20.51 (except E→G), 20.53-20.54, 20.55-20.59

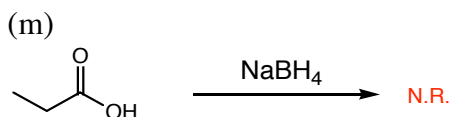
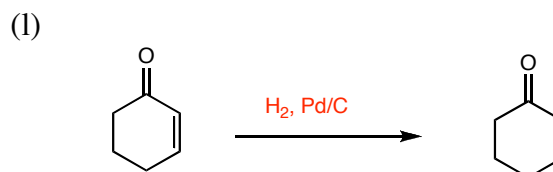
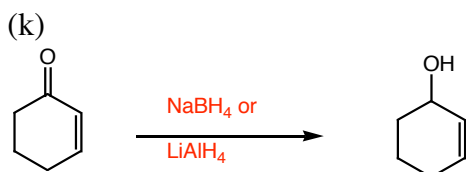
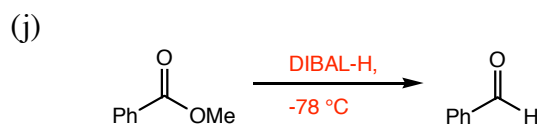
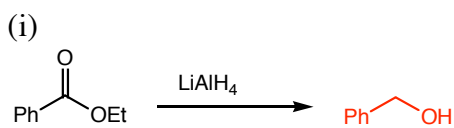
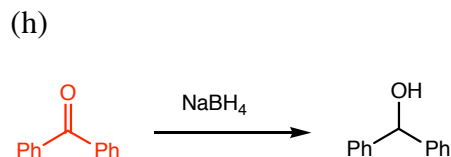
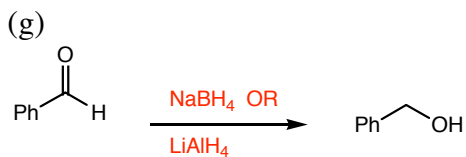
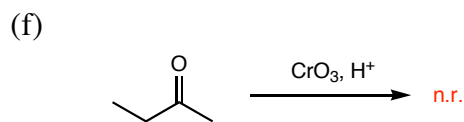
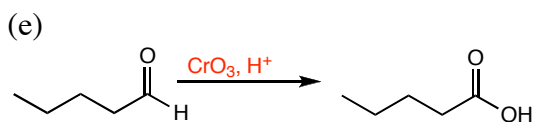
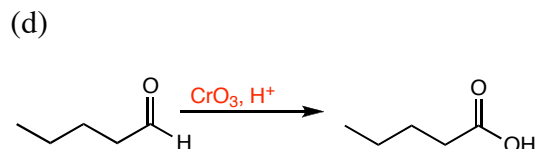
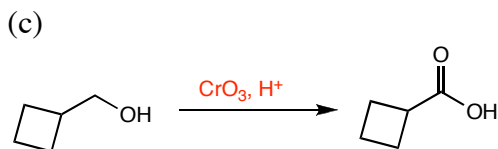
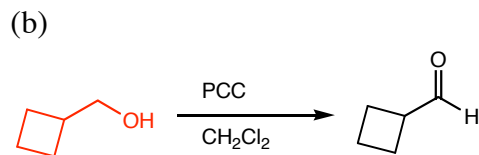
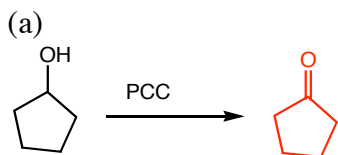
(Recommended problems from 1st ed): 20.2-20.6, 20.9-20.12, 20.15, 20.17-20.25, 20.36-20.37 (except f, i), 20.39 (a-j), 20.42 (a-b, c-d), 20.43 (c,d), 20.44, 20.45 (a,b,d), 20.47 (a-f, i-j), 20.48 (a-f, h, i), 20.48 (a-c, e, h), 20.50 (except E→G), 20.52-20.53, 20.54-20.56)

1. Fill in the products that are formed at each intersection of reagent and substrate:

	PCC in CH ₂ Cl ₂	CrO ₃ , H ⁺ , H ₂ O
	no reaction	
	no reaction	no reaction

	NaBH ₄	LiAlH ₄	DIBAL-H (-78 °C)
	no reaction		

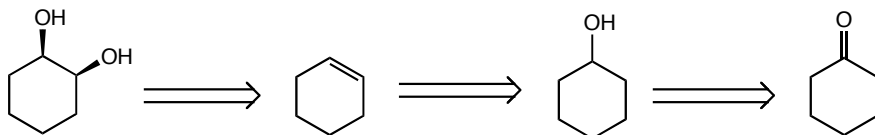
2. Give the appropriate starting material, reagent, or product for the following reactions. In some cases there may be no reaction or reagent that will perform the reaction.



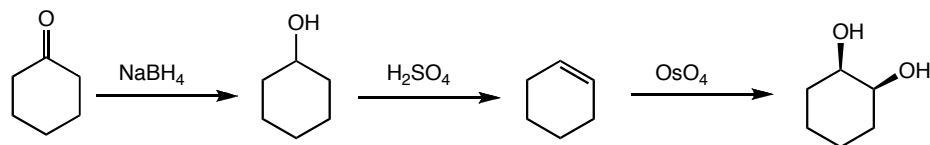
3. Propose a synthesis of the following compounds. You may have to use reactions from earlier in the semester or even last semester.

(a)

Retrosynthesis:

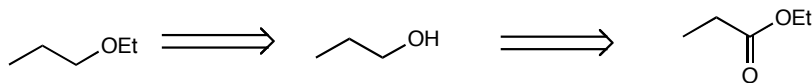


Forward direction:

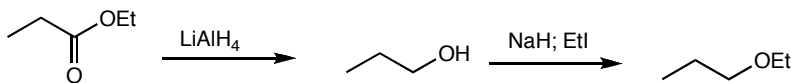


(b)

Retrosynthesis:

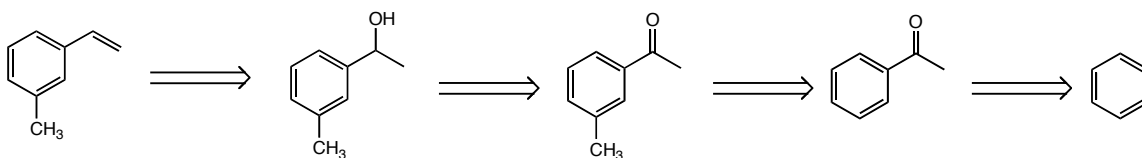


Forward direction:

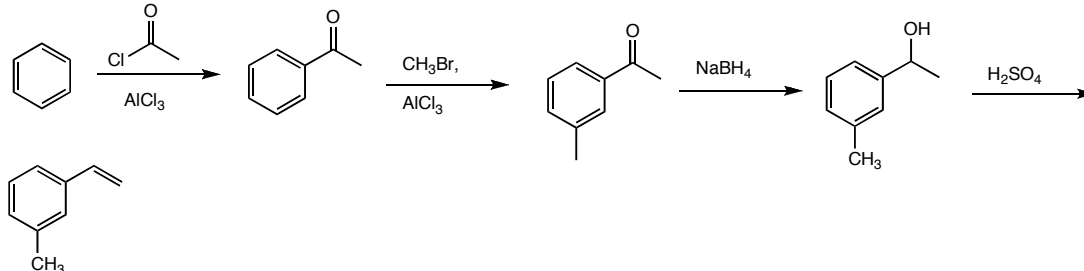


(c)

Retrosynthesis

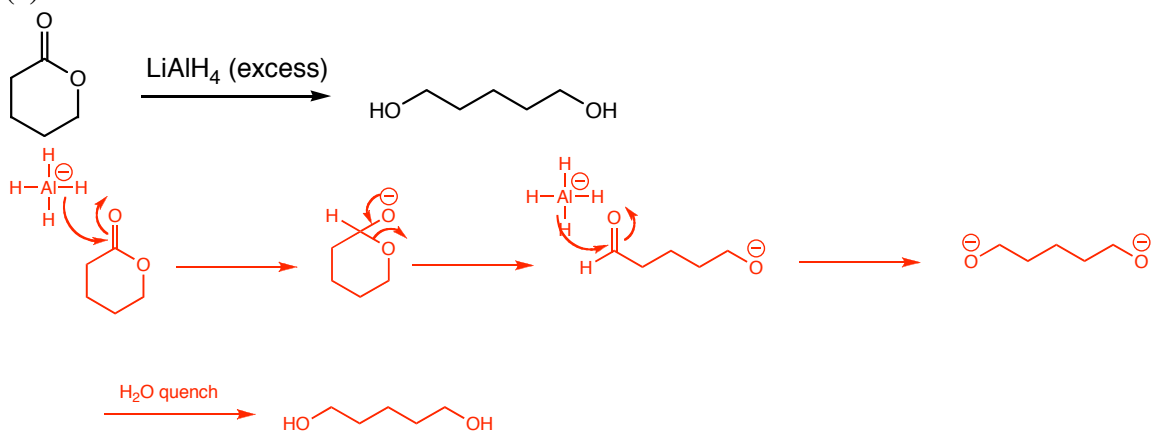


Forward direction:



4. Propose a mechanism for the following reactions:

(a)



(b)

