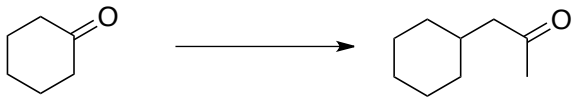
Chem 332
Spring 2013
HW #2
Due 10 AM Feb 19th, 2013

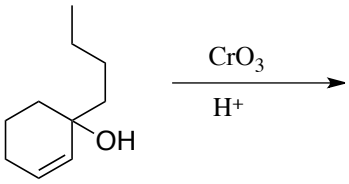
Name_____

1. (10 points) Show a synthetic scheme for converting **A** into **B**. As well as **A**, you may use any piece that contributes three or fewer carbons to the final product.



A B

2. (10 points) Deduce the structure of D, and draw an arrow-pushing mechanism for its formation.



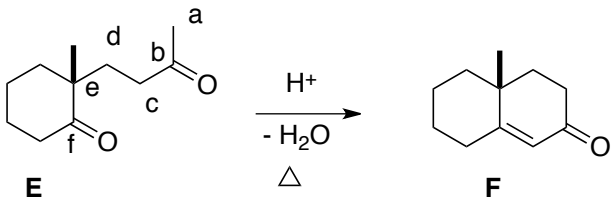
C

D $C_{10}H_{16}O$

IR (neat) 1670 cm^{-1}

^{13}C NMR	**^{1}H NMR**
199.7, s	5.87 (t, 1H, *J* = 1.4 Hz)
166.5, s	2.35 (ddd, 2H, *J* = 7.5, 6.7, 2.2 Hz)
125.4, d	2.29 (t, 2H, *J* = 6.1 Hz)
37.7, t	2.21 (t, 2H, *J* = 7.5 Hz)
37.3, t	2.05-1.95 (m, 2H)
29.6, t	1.53-1.45 (m, 2H)
29.0, t	1.39-1.29 (m, 2H)
22.7, t	0.92 (t, 3H, *J* = 7.3 Hz)
22.3, t	
13.8, q	

3. (10 points) Draw and arrow-pushing mechanism for the cyclization of **E** to **F**.



E **F**

bb	bf