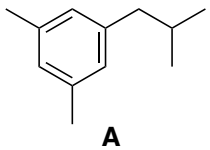
Chem 332
Spring 2012
Homework #8
Due 10 AM Monday April 9th

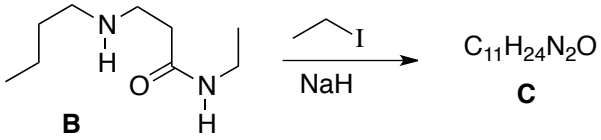
Name_____

1. (10 points) Outline a synthetic route to A. You may start with any monosubstituted benzene derivative that contributes seven or fewer carbons to the final product, and/or any acyclic piece(s) that contribute(s) three or fewer carbons to the final product. You may assume that o,p-reactions will give the para product if that site is open.



A

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



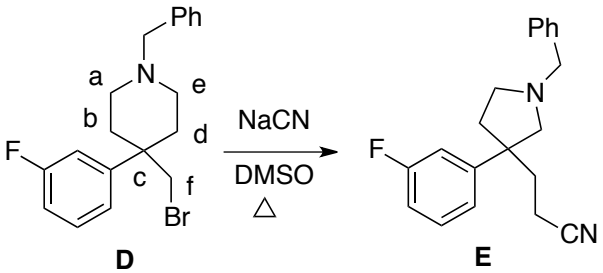
B **C**

^{13}C NMR
12.0, q (2)
13.2, q
20.1, t
32.5, t
33.1, t
41.0, t
48.9, t (2)
49.5, t
170.5, s

^{1}H NMR
0.96, t, J = 7.1 Hz, 3H
1.22, t, J = 6.8 Hz, 6H
1.4, m, 4H
2.30, t, J = 7.8 Hz, 2H
2.55, t, J = 7.2 Hz, 2H
2.83, t, J = 7.8 Hz, 2H
3.24, q, J = 6.8 Hz, 4H
6.3, bs, 1H (exchanges)

3. (10 points)Draw an arrow-pushing mechanism for the conversion of **D** to **E**.

bb | bf



D **E**