

140a HW 7 Due 3/7/19

\* All numbered exercises are from Blundell and Blundell.

1. 21.4.
2. 22.1.
3. 22.4.
4. 22.5.
5. By consider the various thermodynamic potentials, derive Maxwell relations for (a)  $(\frac{\partial \mu}{\partial S})_{V,N}$ , (b)  $(\frac{\partial \mu}{\partial V})_{S,N}$ , (c)  $(\frac{\partial \mu}{\partial T})_{V,N}$ , (d)  $(\frac{\partial \mu}{\partial V})_{T,N}$ , (e)  $(\frac{\partial \mu}{\partial S})_{p,N}$ , (f)  $(\frac{\partial \mu}{\partial p})_{S,N}$ , (g)  $(\frac{\partial \mu}{\partial S})_{p,N}$ , (h)  $(\frac{\partial \mu}{\partial T})_{p,N}$ , (h)  $(\frac{\partial \mu}{\partial p})_{T,N}$ .
6. 29.6