

Chemistry 309

Problem Set 6

Due Wednesday, October 31st (BOO!) at end of class

Exercises: E4A.1(a), E4A.2(a), E4B.1(a), E4B.3(a)

Problems: P3E.6, P3E.7

In addition,

1) Prove that the equation $C_p - C_v = \frac{TV\alpha^2}{\kappa}$ reduces to $C_p - C_v = nR$ for an ideal gas.

2) Derive a thermodynamic equation of state for $\left(\frac{\partial H}{\partial V}\right)_T$.