

ASSIGNMENT 6

CHEMISTRY 200

Due: 4:30 pm Monday 23 October 2006

1. Using:

$$\left(\frac{\partial U}{\partial V}\right)_T = T \left(\frac{\partial p}{\partial T}\right)_V - p$$

evaluate $(\partial U/\partial V)_T$ for:

- (a) The ideal gas equation of state,
 - (b) The van der Waals equation of state,
 - (c) The Berthelot equation of state.
2. Do question 2 on page 384 of your text.
 3. Do question 4 on page 385 of your text.
 4. Do question 8 on page 385 of your text.
 5. Do question 10 on page 385 of your text.