

## ASSIGNMENT 6

### CHEMISTRY 200

Due: 4:30 pm Monday 27 October 2008

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.