

# HOMEWORK #7 Due 5:00 PM Friday

March 17

Chapter 23: **1, 4, 6, 27**

Chapter 26: **3 (do not plot),**

**6 (assume  $x \ll n_0$  to discuss trends),**

**22 (justify answer quantitatively),**

**24**

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## Hints

23.1 – Make a plot similar to the phase diagram in Lecture #21. Be sure to draw dashed horizontal and vertical lines indicating the pressures and temperatures of the (1) critical point, (2) triple point, and (3) normal boiling point.

23.6 – separate variables (P & T) and integrate.

26.3 – Do only the first part. Do not plot and do not consider LeChatlier's Principle. Follow procedure used to solve Example #1 of Lecture #24:



	$\text{N}_2\text{O}_3$	$\text{NO}$	$\text{NO}_2$
Initial moles	$n_0$	0	0
Change moles	$-\xi$	$\xi$	$\xi$
Final moles at equilibrium			
Mole fraction			
Partial Pressure			

26.6 – Derive  $K_p$  expression in the same fashion as 26.3 but simplify later by assuming  $\xi \ll n_0$ . Discuss the consistency with LeChatlier's Principle.

26.22 Since the answer is in the back of the text, I want to see your quantitative justification for the answer!