**Mini-quiz #25 Chemistry 1114 section 2 (Fong) 5 Nov 2014 4 pts A**

**Your name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**A gas at fixed volume is initially at 300 K. It is heated to 900 K where it attains a pressure of 12 atm. What was the initial pressure, P1 ?**

**P1/T1 =P2/T2 at fixed V**

**P1/300= 12/900**

**P1 = 300\*12/900=4**

 **\_\_\_\_4\_\_\_\_\_\_\_\_\_\_P1 (atm)**

**A gas at fixed pressure changes volume from 50 L to 25 L. The initial temperature was 227 oC**

**Given that T(K) =273 + T(oC), what is the final temperature in K ?**

**T­1 (K)=227+273=500 K**

**V1/T1 =V2/T2**

**50/500=25/T2**

**T2 =500\*25/50=250**

 **\_\_250\_\_\_\_\_\_\_T2(K)**

**Mini-quiz #25 Chemistry 1114 section 2 (Fong) 5 Nov 2014 4 pts B**

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**A gas at fixed pressure changes volume from 10 L to 20 L. The initial temperature was 227 oC**

**Given that T(K) =273 + T(oC), what is the final temperature in K ?**

**T1 =227+273=500**

**At fixed P:**

**V1/T1 =V2/T2(K)**

**10/500=20/T2(K)**

**T2 =500\*20/10=1000**

 **\_\_1000\_\_\_\_\_\_\_T2(K)**

**A gas at fixed volume is initially at 200 K. It is heated to 600 K where it attains a pressure of 6 atm. What was the initial pressure, P1 ?**

**Fixed V=> P1/T1=P2/T2**

 **P1/200=6/600=> P1 = 200\*6/600=2**

 **\_\_\_\_\_2\_\_\_\_\_\_\_\_\_P1 (atm)**