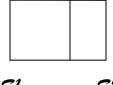
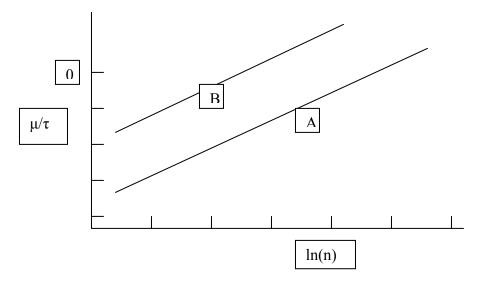
## Phy 410 Quiz #6, March 5, 2010



*S1 S2* 

- (i) The temperature of SI is  $\tau_1$  and of SZ is  $\tau_2$ . Only energy is exchanged. If  $\tau_1 > \tau_2$  then which direction the energy flows?(2.5pts)
- (ii) Two systems have same  $\tau$  but can exchange particles. If  $\mu_2 > \mu_1$ , which directions the particles flow? (2.5pt)



(iii) Two ideal gas systems A and B are at the same  $\tau$  and have the above  $\mu/\tau$ . Which atoms are heavier and why? (5 points)