## Homework Set 2, February 7, 2001

HW 5. Determine the probability that two people chosen from a random group of 50 people share the same birthday. (1 point)

HW 6. Derive the condition for equilibrium starting from $E=E(S, V, N)$ by considering two systems separated by rigid, impermeable, diathermal walls, moveable, impermeable, diathermal walls, and rigid, permeable diathermal walls. (2 points)

HW 7. Derive the possible Maxwell relations from $H=H(S, P, N)$. (2 points)
HW. 8. Page 47, Problem 1 (Use Excel, or something like that, we'll come back and do it with PYTHON in the next problem set.) (3 points)

HW. 9. Page 47, Problem 2. (2 points)
HW. 10. Page 47, Problem 4. (2 points)
HW. 11. Page 47, Problem 6. (2points)

HW. 12. Page 47, Problem 7. (3 points)
HW. 13. Page 48, Problem 10. (3 points)
This assignment is due on Friday, February 16.

