

PRINT NEATLY ***

USE A BLACK PEN ***

DO NOT STAPLE

Course Chem 565/665 Lecture Number 1 Date 1/21/03

Lecturer Dr. Silvia Cavagnero Note Taker Eric Fulmer

Thursday: Meet in B371

Friday: Meet in B383

Probability (P)

Probability will help us understand the likelihood of events to happen.

Some Thermodynamic Quantities

S - Entropy

H - Enthalpy

G - Gibbs free energy

Notation Note \equiv means "equivalent to, defined as."

A, B, C, ... \equiv categories defining

N \equiv the total # of possible outcomes

$$N = n_A + n_B + n_C + \dots$$

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n_A, n_B, n_C, \dots = # of possible outcomes falling into categories A, B, etc.

Probability of outcome A (or B, etc)

$$P_A = \frac{n_A}{N}$$

$$0 \leq P_A \leq 1$$

$P_A = 0$ implies that outcome A will not occur.

$P_A = 1$ implies that $n_A = N$. A will be the only outcome that is observed.

$$P_A = \frac{n_A}{N} = \frac{N}{N} = 1$$