



Canonical Ensemble

Thermal Radiation

Phonons in a Solid

Grand Canonical Ensemble

Chemical Potential

Grand Potential

Fermions and Bosons

Ideal Gas

DOG (bork)

## PHY 410 - Reference Sheet

**Boltzmann's constant**

$$k_B = 1.380649 \times 10^{-23} \text{m}^2 \text{s}^{-2} \text{K}^{-1}$$

**Entropy**  $S = k_B \sigma$ ,  $\sigma_{TOT} = \sigma_1 + \sigma_2$

**Temperature**  $T = \tau/k_B$



[Kaedon.net/phy410reference](https://kaedon.net/phy410reference)