krtle TP.

3.3 (a). $7 = 8 exp[-tw]^5$. = 1-eq [- try] T= -7 ln = -7 ln [- exp[- #w] = 7 In [1- exp [- tru] (b) $e = -\left(\frac{\partial F}{\partial \gamma}\right) = -\ln\left[1 - exp\left[-\frac{\hbar u}{\gamma}\right]\right] - \left(\frac{\hbar u}{\gamma^2}\right) = -\ln\left[1 - exp\left[-\frac{\hbar u}{\gamma}\right]\right] - \left(\frac{\hbar u}{\gamma^2}\right) = -\frac{\hbar u}{\gamma^2}$ $=\frac{\hbar u/\gamma}{1-eq^{2}\left[-\frac{\hbar u}{\gamma}\right]}$

Pavilsu Chen 1.3.2024