

Physics 201, Fall 2008

Problem Set 7

Due Wednesday, October 22.

Problems from Taylor, Zafiratos and Dubson:

3.40, 3.47, 3.50, 4.2

Additional Problem

In Problem 4.2 you showed that the Planck distribution agrees with the Rayleigh-Jeans distribution for long wavelengths. Consider again the Planck distribution, Eq.(4.28) in the text. Show that the intensity $I(\lambda, T)$ vanishes in the limit $\lambda \rightarrow 0$, and compare with the Rayleigh-Jeans distribution.