

Physics A410: Thermal Physics

Problem Set 10

Assigned 2003 April 2
Due 2003 April 9

Show your work on all problems! Be sure to give credit to any collaborators, or outside sources used in solving the problems.

1 Schroeder 3.31

2 Schroeder 3.32

3 Schroeder 3.39

4 Schroeder 2.12

The chapter for this problem is not a typo. The point of this problem is to get more comfortable with logarithms in anticipation of the upcoming exam. Much of this problem can be approached with the strategy of setting $y = \ln x$ so that $x = e^y$ and then deriving the properties of the logarithm from the more familiar properties of the exponential.