PROBLEM SET 5

Oct. 26 Colloquium: “Big Fun with Small Structures: Nanotubes”
Prof. A. Zettl, UC Berkeley
3:30 pm, 101 Rowland Hall


2. Eisberg and Resnick problem 12.21.


4. How does the transition temperature $T_C$ depend on the number of particles $N$ if $E=pc$ for Bose condensation? (Hint: You don’t have to evaluate any integrals. Just try scaling, i.e., make the variables in the integral dimensionless. Your answer should be of the form $T_C \sim N^\alpha$. Find $\alpha$.)