Solid state physics 2018 Problem Set #6. Due Apr. 25

1. Obtain an expression for the specific heat of a solid on the basis of
   a. Einstein's theory
   b. Debye's theory.

2. The Debye temperature of diamond is 1850K. Calculate the specific heat per kmol for diamond at 20K. Also compute the highest lattice frequency involved in the Debye's theory.

3. Kittel, Chap. 5. Problem 1
4. Kittel, Chap. 5. Problem 4