

Phys 771

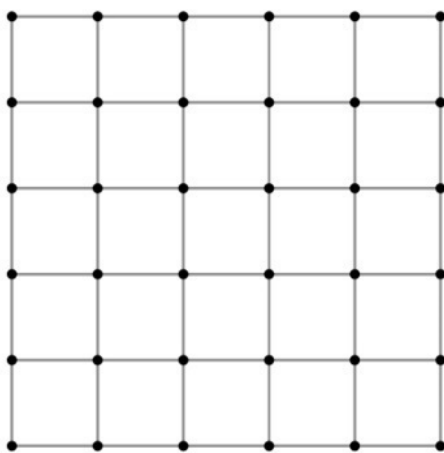
Condensed Matter Physics

Problem Set # 2

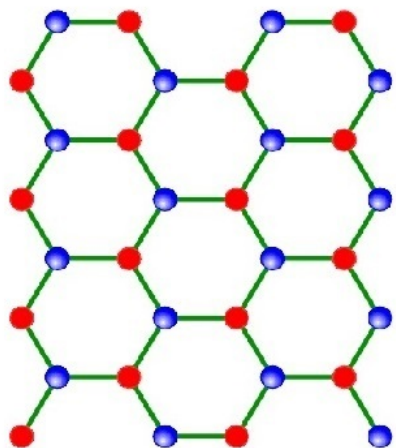
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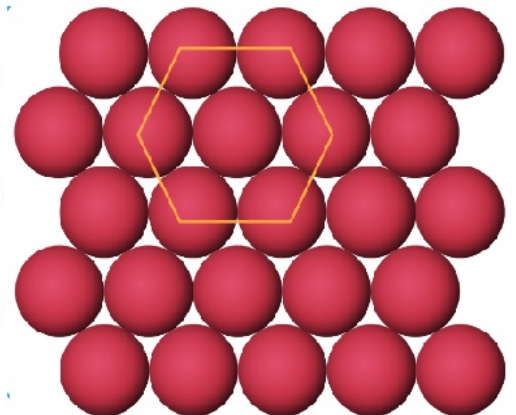
1. Marder 2.1
2. Marder 2.2 part a)
3. Marder 2.3
4. Marder 2.4
5. Marder 2.6 (packing fraction in 3D)
6. Calculate the packing fraction for the 2D square lattice, Graphene lattice, and 2D hcp lattice shown in **Figure 1**. Since we are working in two dimensions, we should be using area instead of volume.



2D square lattice



Graphene lattice



2D hcp lattice

Figure 1: