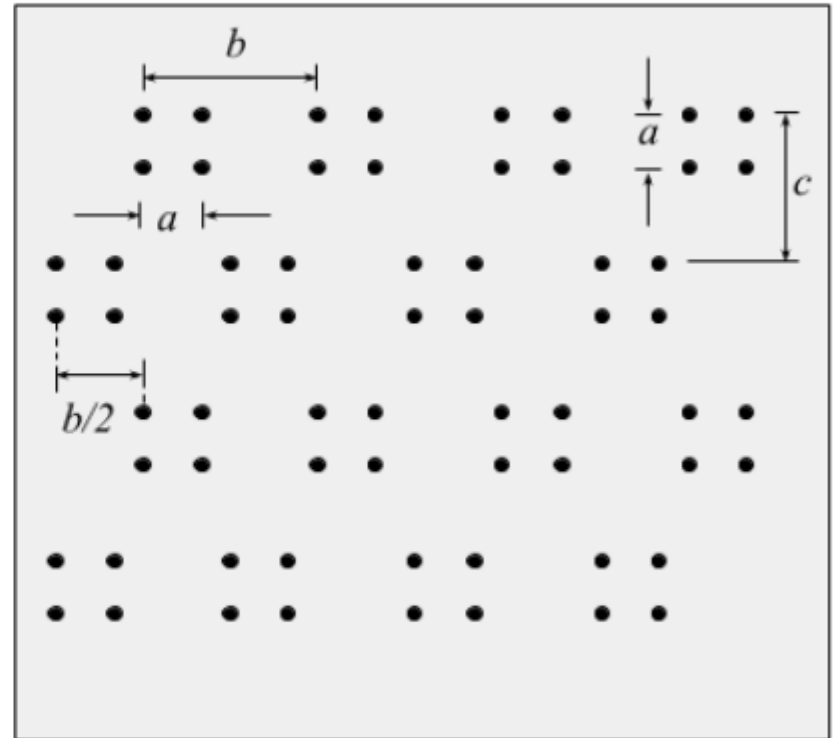
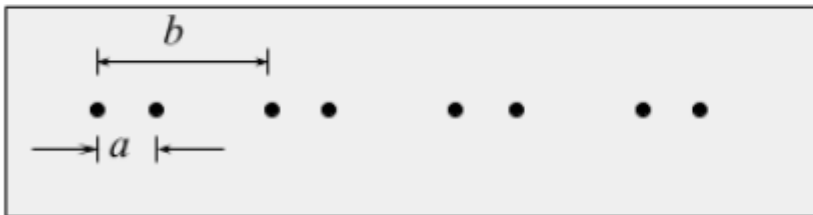
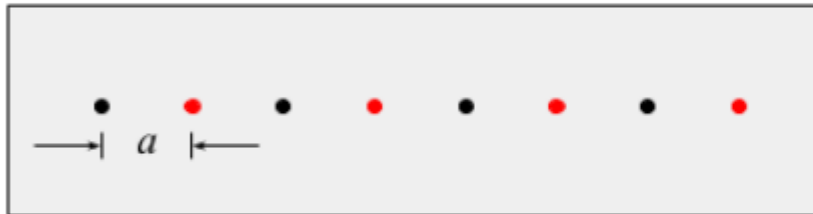
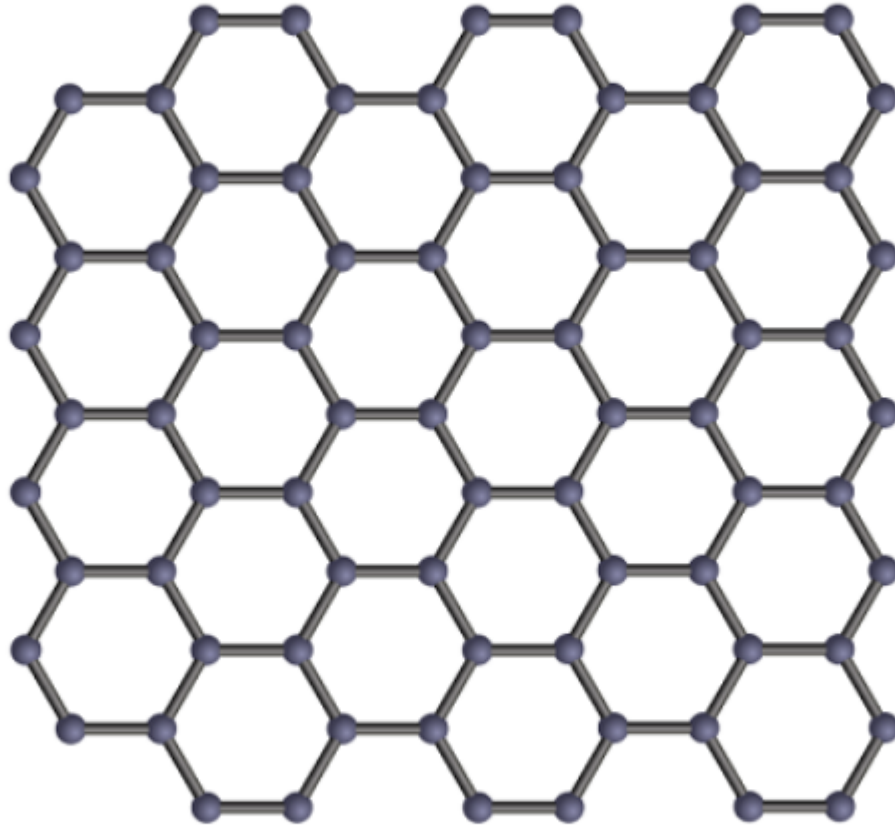


Assignment - Q1



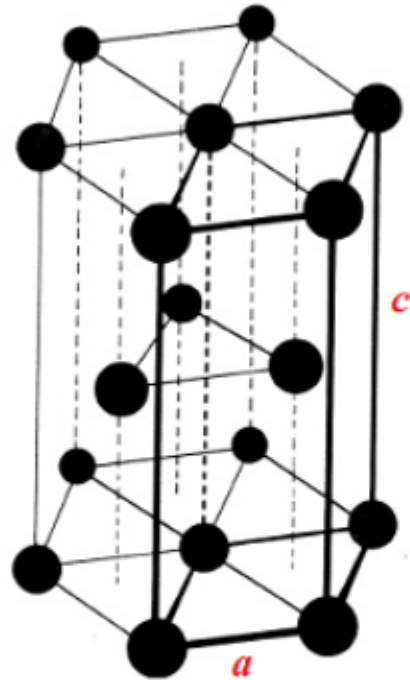
Describe each of the structures shown above by choice of primitive lattice vectors and identification of the basis. Use cartesian coordinates.

Assignment - Q2

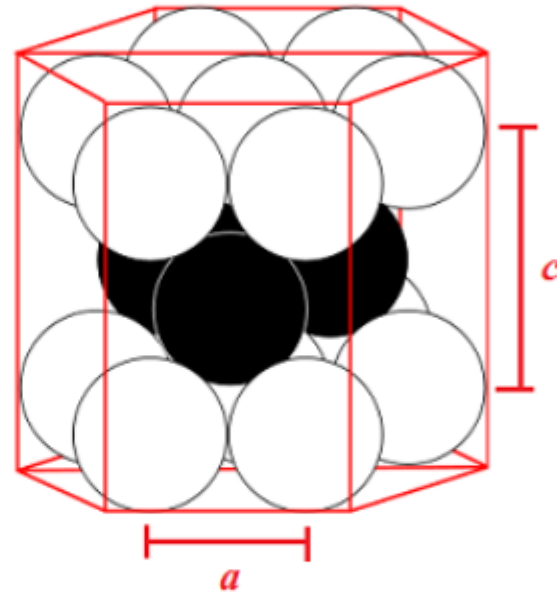


Describe the structure of graphene by choice of primitive lattice vectors and identification of the basis. Use cartesian coordinates.

Assignment - Q3



Hexagonal lattice
structure



Hexagonal closest
packed structure

1. For the hexagonal closest packed (hcp) structure, show that $c/a = \left(\frac{8}{3}\right)^{1/2}$
2. What are the nearest neighbor distance and corresponding coordination number for the hcp structure?