

1. Do integer numbers form a group with respect to addition and multiplication operations? Prove it. This group is finite?
2. Define the basis vectors of primitive unit cell for crystal CuI. What Bravais lattice is in the basis of this lattice? Define the cartesian coordinates of basis vectors and all atoms inside of primitive unit cell. Define the number of space group. Calculate the volume of primitive unit cell.
3. Define the basis vectors of primitive unit cell for crystal CuSO_4 . What Bravais lattice is in the basis of this lattice? Define the cartesian coordinates of basis vectors and all atoms inside of primitive unit cell. Define the number of space group. Calculate the volume of primitive unit cell.