

1. How is looks like transformation matrix for inversion for  $O_h$  group.
2. Define the basis vectors of primitive unit cell for **graphite** crystal. 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.