1. **Implement a class point_3d that has x, y, z as float, function set() to read (x, y, z) as a point, function norm() to return the point's distance from the origin (0,0,0), friend function distanceP to return the distance between two points, and friend function maxnorm to return max norm for two points.**
2. **Implement a Matrix class for 3 × 3 matrix of integer elements, function read () to read a matrix, and friend class OPER. This class contains a function Findmax() to return the max element in the matrix, function sumM to return the sum of two matrices, and function compareMax to compare the max members for two matrices and return max member.**
3. **Implement two classes Ratio, Complex. Ratio class has n, d as integer, function input () to read n, d, and friend function multR to return the multiply of two ratios. Complex class has r, m as integer, function input () to read r, m, friend function sumC to return the sum of two complexes. Write friend function maxR_C for two classes Ratio, this function compares (n, r) and (m, d) and returns 1 or 0.**