Computational Geoemtry

Programming Assignments I
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Exercise 1. Implement an algorithm that takes as input three points in the plane. checks that they form a triangle and whether the interior of the triangle contains the origin $(0, 0)$ or not.

Exercise 2. Given a circle of radius r in the plane with $(0, 0)$ as center, implement an algorithm that finds the total lattice points on the circumference. Lattice Points are points with integer coordinates.

Exercise 3. Implement the incremental 2D algorithm for computing the convex hull of a finite set of points in the plane.

Exercise 4. Implement the gift wrap algorithm for computing the convex hull of a finite set of points in the plane .