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| GEOMETRY | LEARNED | TEMPLATE | SOLVED PROBLEM |
| Convex Hull ( Graham Scan ) |  |  |  |
| Picks Theorem |  |  |  |
| Line equation |  |  |  |
| Line line intersection |  |  |  |
| Line segment Intersection |  |  |  |
| Line Point Distance |  |  |  |
| Point in Circle  ( inside,outside,on ) |  |  |  |
| Point in Rectangle |  |  |  |
| Point in Triangle |  |  |  |
| Point in Polygon ( O (n), O(lgn))  ( convex/concave ) |  |  |  |
| Polygon Area |  |  |  |
| Segment Segment Intersection |  |  |  |
| Intersection of N segments |  |  |  |
| Circle Through Three Points |  |  |  |
| Centre of Polygon |  |  |  |
| Convex/Concave identify |  |  |  |
| Polygon Intersection |  |  |  |
| Area of a 3D polygon |  |  |  |
| Minimum circle covering all points |  |  |  |
| Rotating Calipers Technique |  |  |  |
| Line sweep / Plane sweep algorithms |  |  |  |
| Closest Pair of Points |  |  |  |
| Area of Union of Rectangles |  |  |  |
| Area of Union of Circles |  |  |  |
| Parameter of union of rectangles |  |  |  |
| Fitting a rectangle inside another |  |  |  |
| Circle Circle intersection |  |  |  |
| Delaunay Triangulation of n points |  |  |  |
| Voronoi diagram using Fortune’s algorithm |  |  |  |
| Understanding 2D,3D geo template of brother Sanim, Maruf \*\*\* |  |  |  |
| SSC book , new HSC book geometry concepts \*\*\* |  |  |  |
| Basics of line, point, circle, triangle, rectangle etc. \*\*\* |  |  |  |
| SPOJ, TopCoder, LOJ solve \*\*\* |  |  |  |