

Beginner:

BS:

http://www.lightoj.com/volume_showproblem.php?problem=1062

http://www.lightoj.com/volume_showproblem.php?problem=1137

Vector 2D: <https://github.com/jaehyunp/stanfordacm/blob/master/code/Geometry.cc>

Convex Hull:

LOJ 1239: <http://pastebin.com/HpKTN1wr>

LOJ 1203, 1285.

Analytical Geometry: UVA 10283, 10286, 10287 (BS)

Advance:

Vector Theory:

Operations: projection, reflection, mirror, [rotation](#), Area of polygon, 3D volume.

Linear Transformation: Mirror Query

https://docs.google.com/document/d/1KvJj5eDQwoV7dMuXw0gJcOZVZc1Slytly_pQxm4mo2I

Vector routine: 2D <https://github.com/jaehyunp/stanfordacm/blob/master/code/Geometry.cc>

Algo Links: <http://geomalgorithms.com/algorithms.html>

http://www.lightoj.com/volume_showproblem.php?problem=1313

http://www.lightoj.com/volume_showproblem.php?problem=1358

Crazy Minion:

<https://drive.google.com/open?id=0B1o0gxWv12-vV1duc19nZ0d1SIFKN3QyQXRZNXZoSmViUFA4>

<https://uva.onlinejudge.org/external/120/12029.pdf>

Timus: 1703, 1710, 1697

TJU: 3114

UVA: 11580

Algorithm:

N circle union area $n^2 \log n$ (live archive 2895 dhk 03, SGU 435)

Number of obtuse angle triangle $n^2 \log n$ (uva 11529)

Rotating Calipers:

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.155.5671&rep=rep1&type=pdf>

<http://poj.org/problem?id=3608>

<http://poj.org/problem?id=2187>

Rectangular Dustbin: Polygon dust.

- Soldier spells.

Convex Combination:

<http://codeforces.com/contest/605/problem/C>

https://en.wikipedia.org/wiki/Convex_combination

Packing Problems:

10283 **

10286 *

10287 *** +BS

10289 **** +BS

10353 **** +BS

10402

10481 **** +BS

11009 ****

Geodesic Distance

http://en.wikipedia.org/wiki/Great-circle_distance

10517 ***

10598 ***

10809 ***** - Geodesic distance / Solving Using Parameter / Great Circle's Clear Concept.