Brute Force 1

Prewords

- Deadline for submission is 11-06-2017 11:59 PM (PST).
- Please submit your assignment online at the submission page (`https://pontus.digipen.edu/cgi-bin/submission.cgi`).
- You will find all source files at `https://pontus.digipen.edu/cgi-bin/submission.cgi` / convexhullBF.
- This is NOT a group assignment!!! You are allowed to ask everybody and use every kind of help - BUT you need to submit your own solution.

Convex Hull Problem

The convex hull of a set X of points in the Euclidean plane or Euclidean space is the smallest convex set that contains X.

Problem: Find the smallest convex set.

Task

Implement convex hull brute force:
1) hullBruteForce: for each pair points determine whether all other points are one side of the line formed by the pair of points. If it does - add the points (or rather indices to the hull). Since hull is represented by a std::set, you do not have to worry about duplicates.

2) hullBruteForce2: find the first point that is in the hull (smalles or biggest x or y coordinate), then find the next vertex of the hull in counter-clockwise order by considering all lines through the previous vertex and requiring that there are no points to the right of it.

To submit:
hull-bruteforce.cpp

Programming assignments will use C++ language. All programs must adhere to Standard C++. Assignments will be graded using GNU's gcc/g++ compiler. The source files must be submitted electronically through the course submission page.

https://pontus.digipen.edu/cgi-bin/submission.cgi

Your source code should be archived in zip format.