EECS65– Computational Geometry
Lab assignment # 3 – Fall 2016

Important Information

1. Strictly observe the deadline in CatCourses.

2. Your solution must be electronically submitted to CatCourses Crops.

3. This programming assignment **must** be solved individually.

4. You can code your solution in Matlab, C/C++, or Java. The choice is up to you. But you have to properly document your submission to explain how your program can be compiled and run. **Important**: if you solve your assignment in C/C++, it **must** compile with `gcc`. Other languages will not be accepted. Do not include solutions depending on the availability of IDEs (e.g., Eclipse or similar). If you use C/C++ or java, please provide instructions to compile your code from the command line.

5. Submissions that do not compile will receive 0 points without further consideration.

6. Your code will be closely inspected to see whether you followed the algorithm presented in class. Solutions not following the algorithm presented in class will receive 0 points.

Minkovski Sums

Implement the algorithm to compute the Minkovski sum of two convex polygons. The input is provided in a file called `input.txt` with two rows. The first one has the vertices of the first polygon sorted in counterclockwise order, whereas the second line has the vertices of the second polygon (also in counterclockwise order). Both polygons can be assumed to be convex, i.e., you do not have to check whether they are convex. Write your output to a file called `output.txt`. The output consists of the vertices of the Minkovski sum in counterclockwise order.