Team Tesla Hack Pack

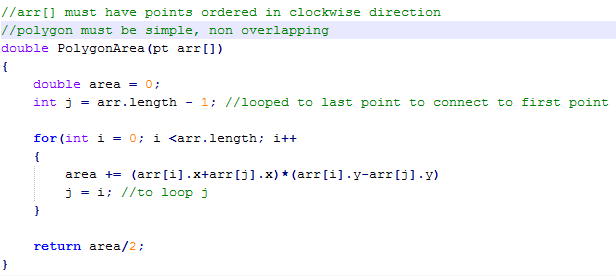
– David Clapp, Kyle Urquhart & Harsh Patel

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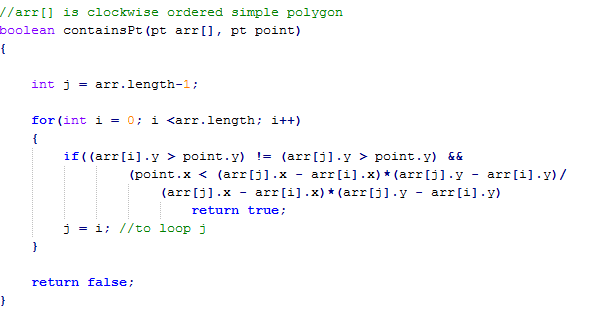
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Geometry

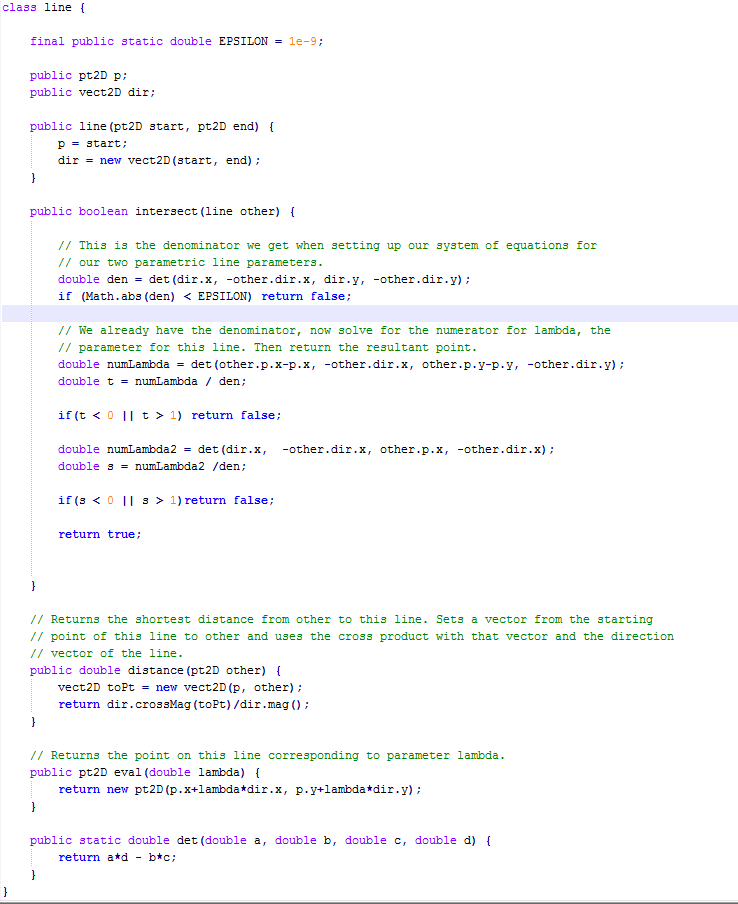
Polygon Area

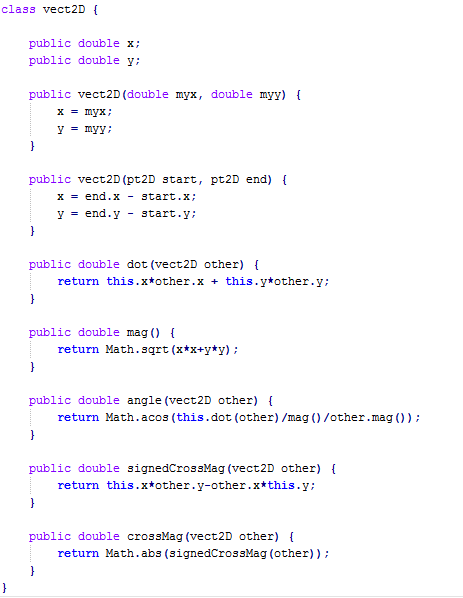


Point in Polygon

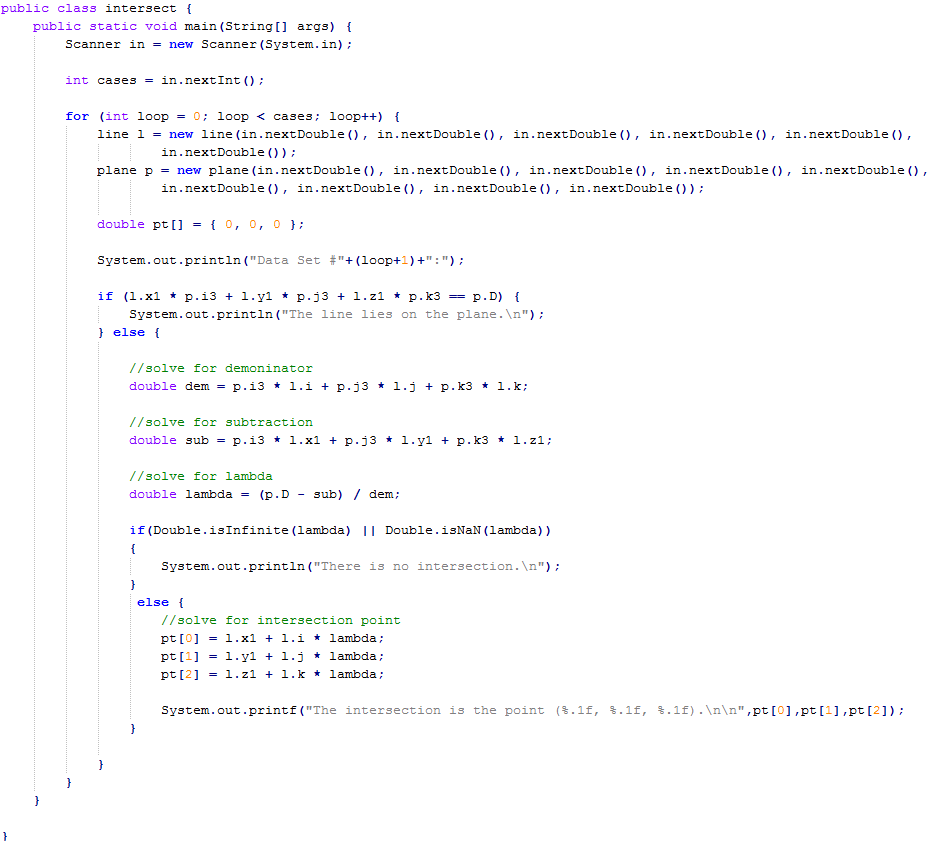


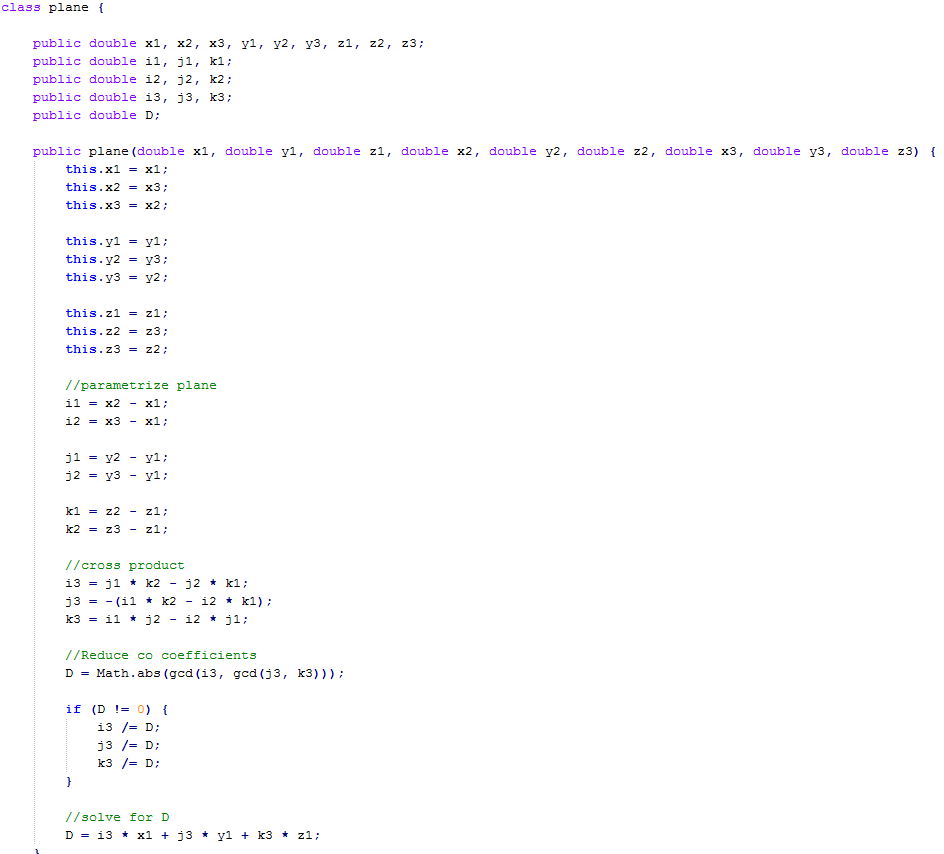
Line segment intersection

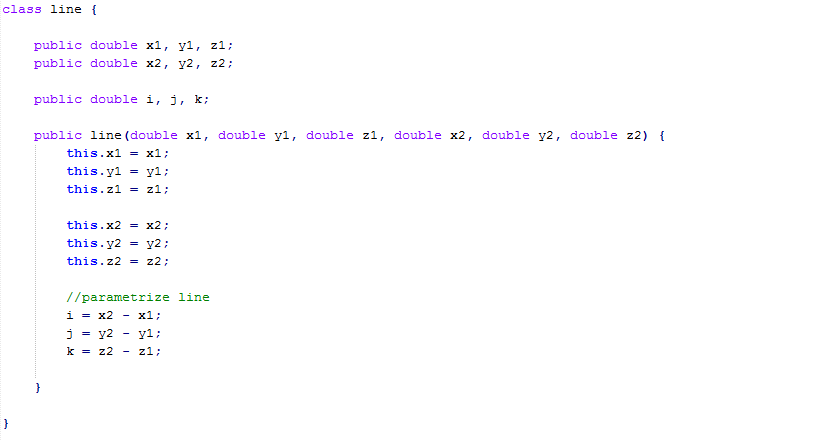


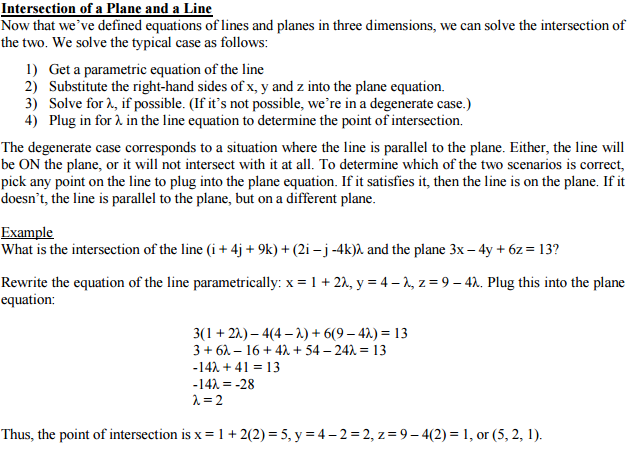


Line-Plane intersection

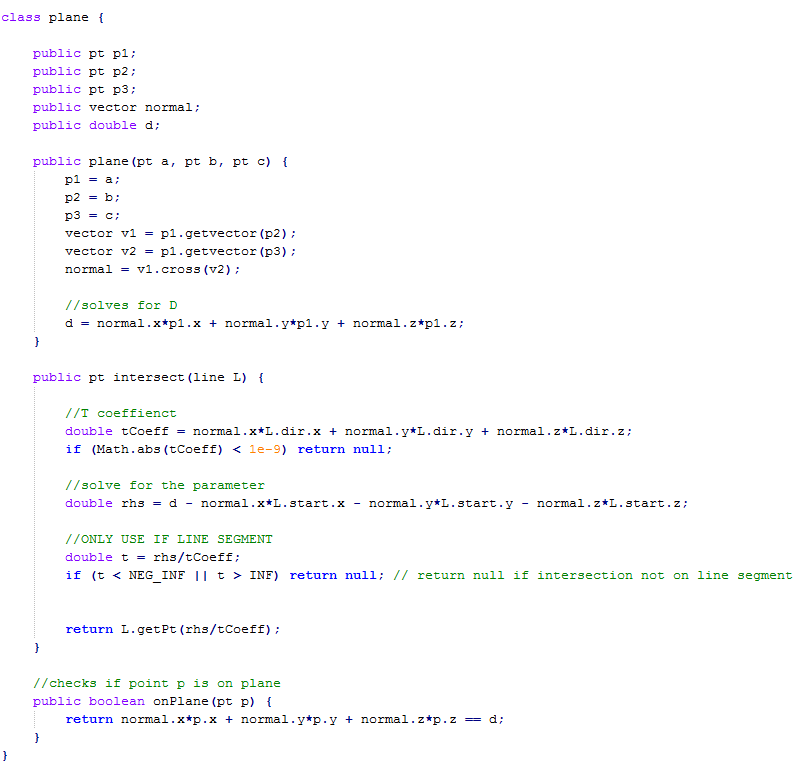
Code by Team Tesla



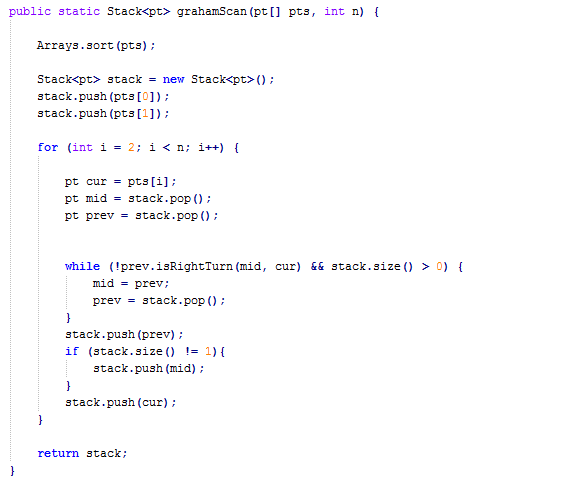


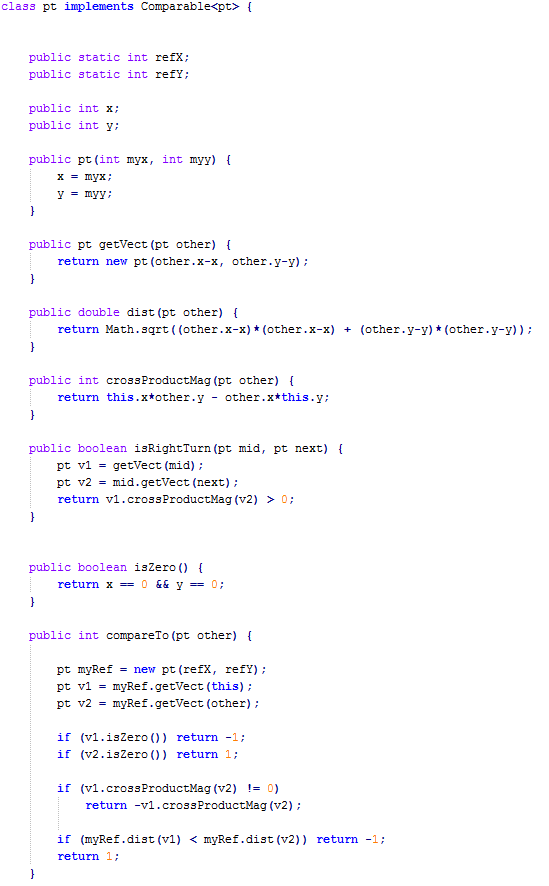


Implementation by Arup Guha



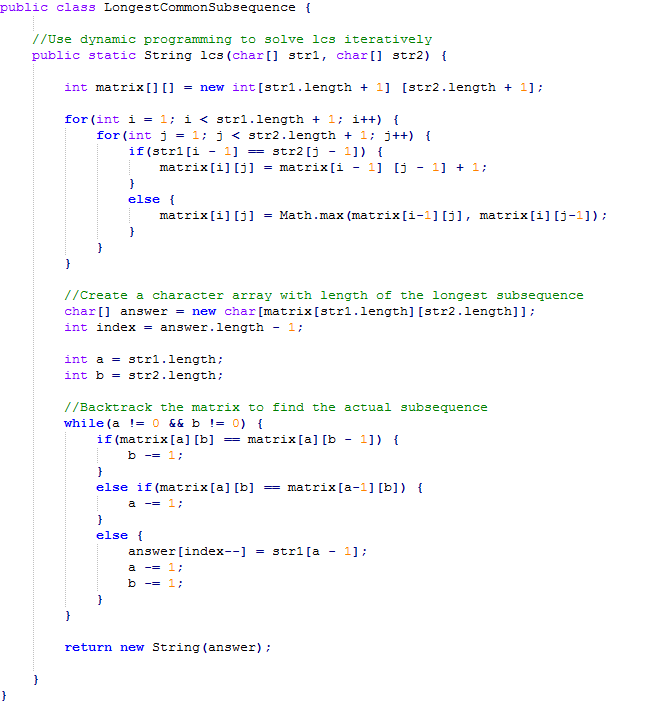
Convex Hull



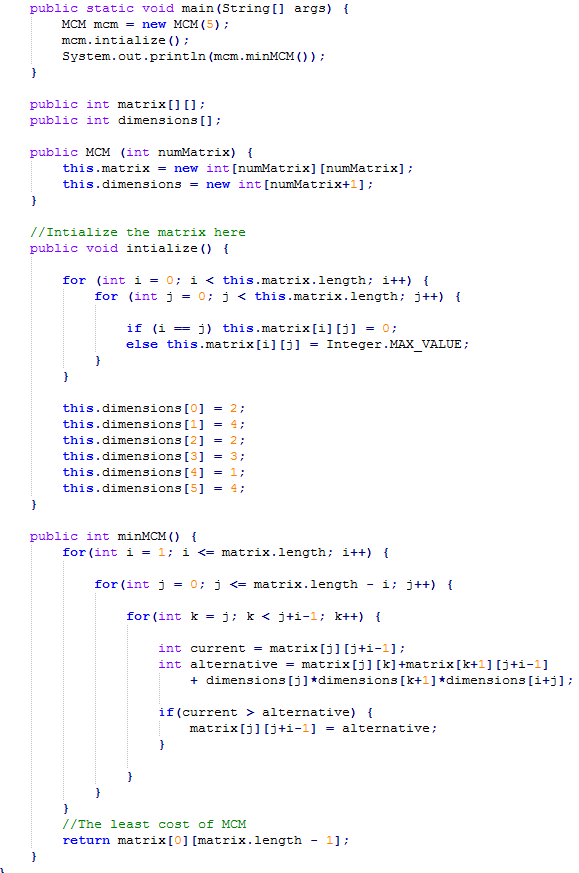


Math

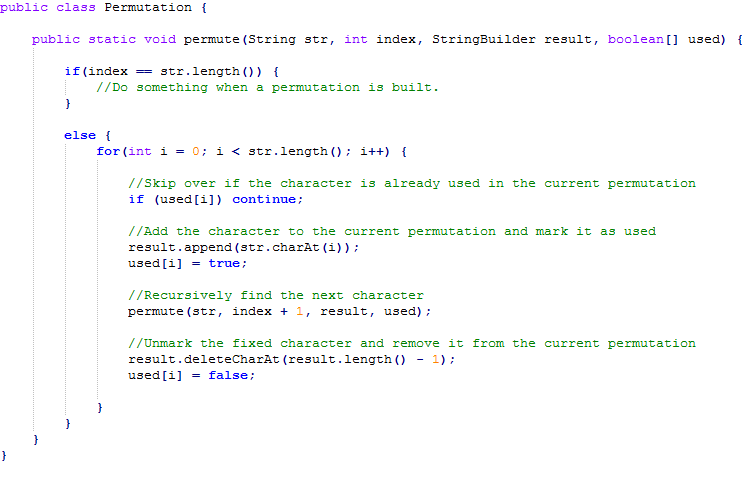
Longest Common Subsequence



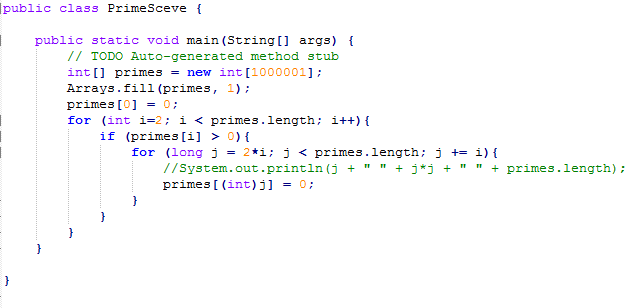
Matrix Chain Multiplication



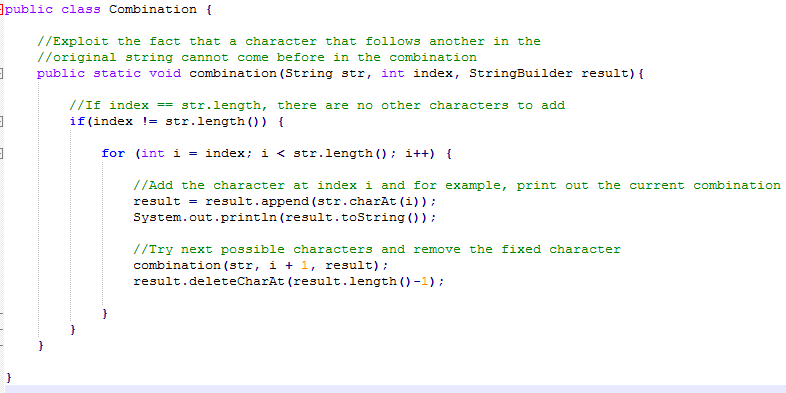
Permutations



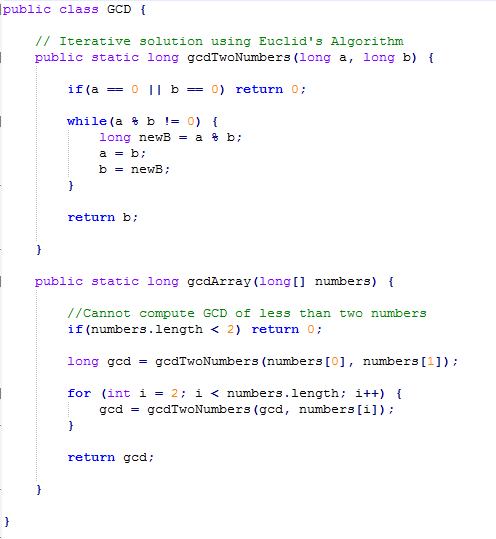
Prime Sieve



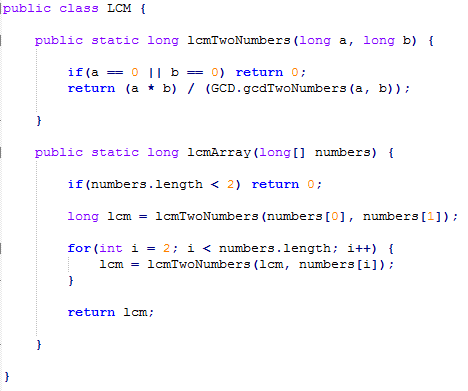
Combinations



Greatest Common Divisor (GCD)

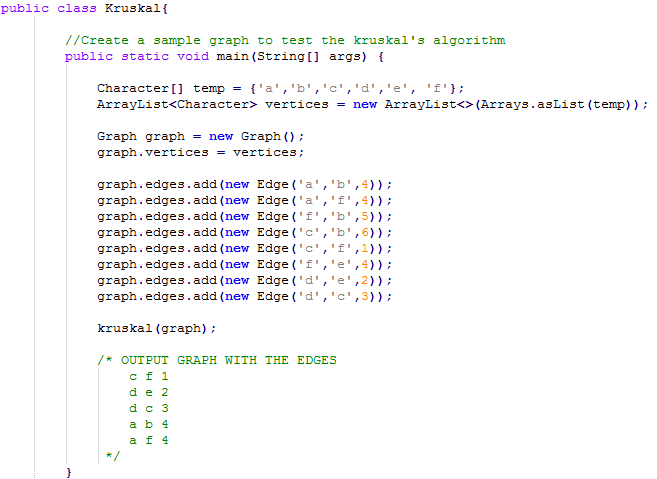


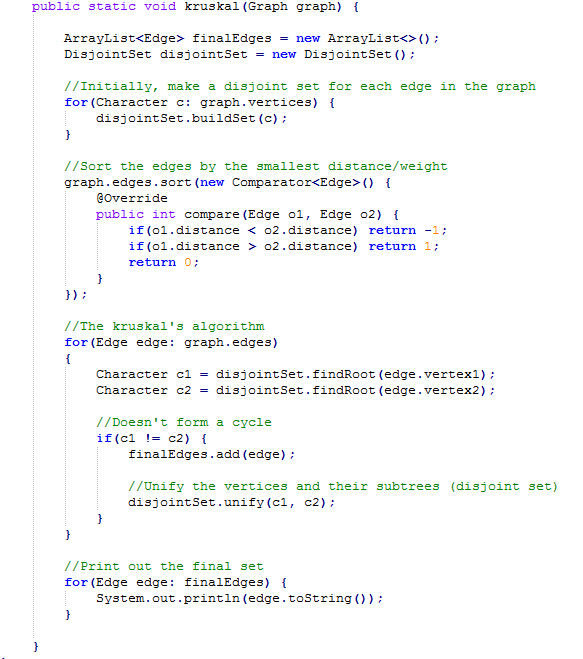
Least Common Multiple (LCM)

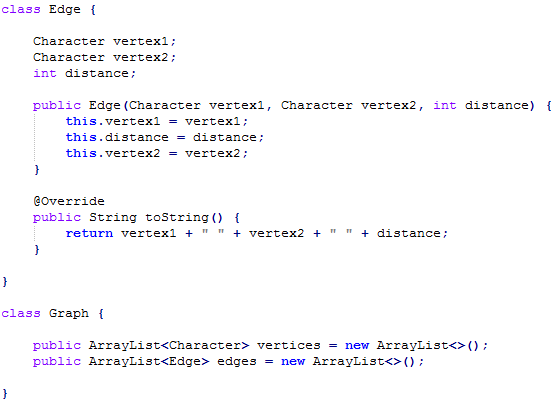


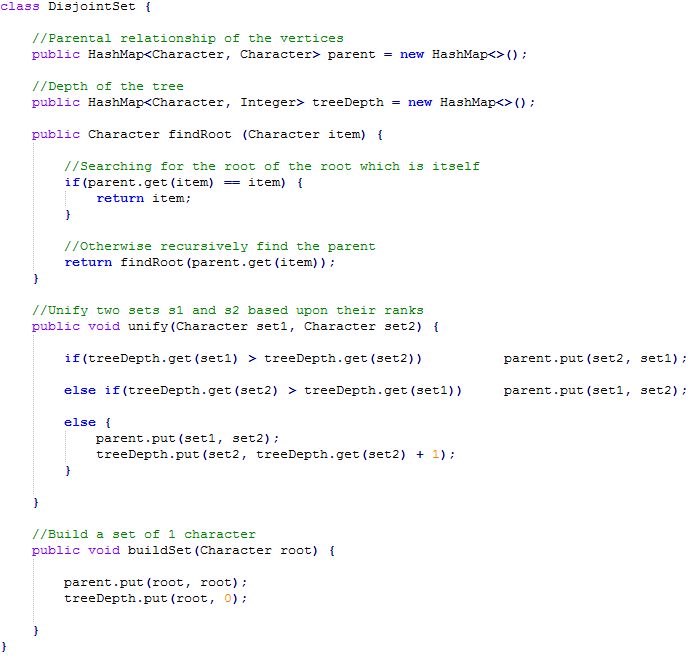
ALGORITHMS

Kruskal’s Minimum Spanning Tree

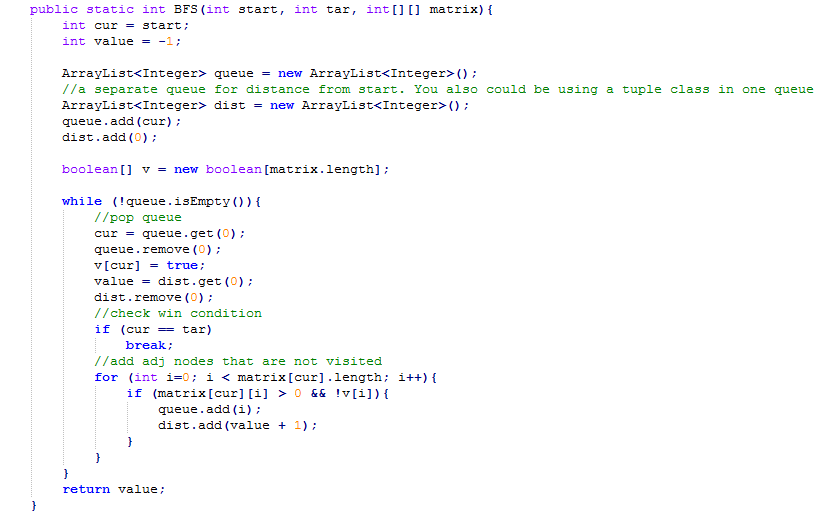




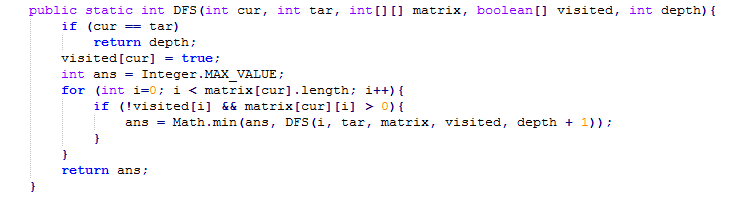




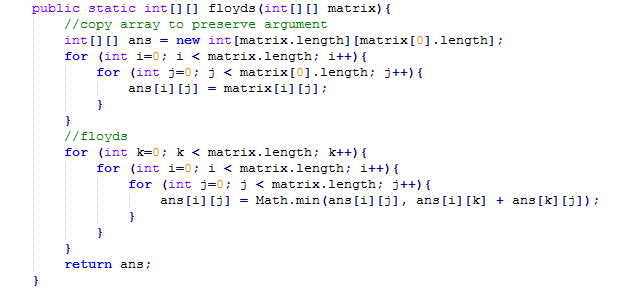
Breadth First Search (BFS)



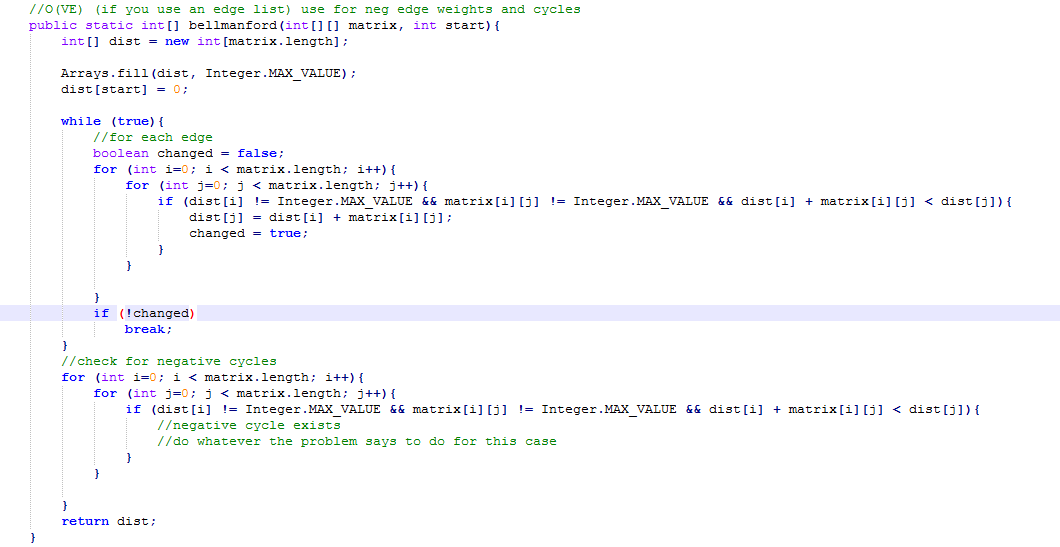
Depth First Search (DFS)



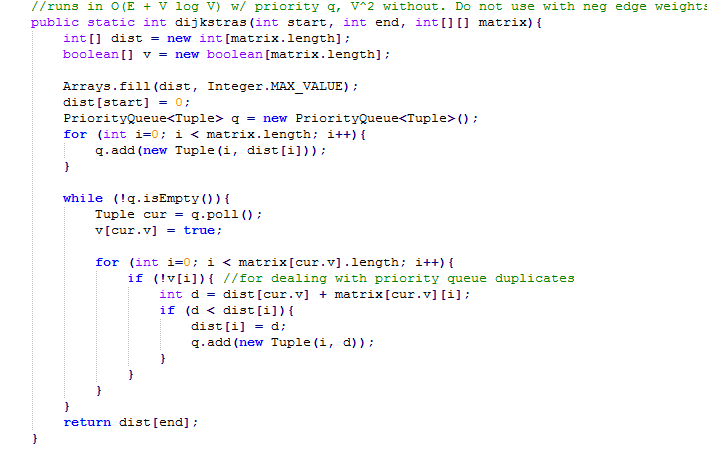
Floyd Warshall



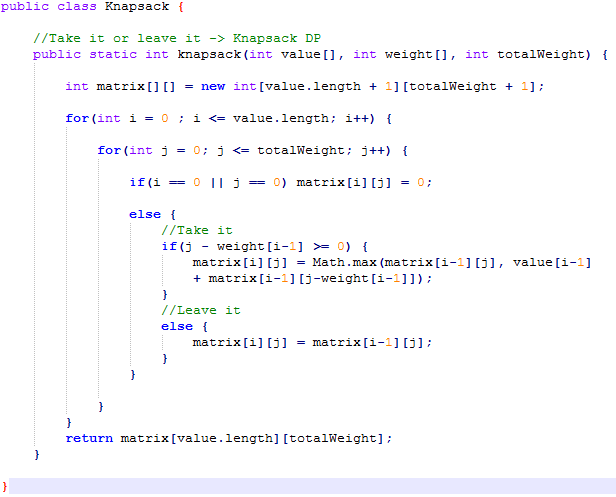
Bellman Ford



Dijkstras



Knapsack – Take it or Leave it



Edmond Karp

