1998 Paper 3 Question 5

Data Structures and Algorithms

Describe

(a) how to determine whether or not a point is inside a simple plane closed polygon, paying proper attention to awkward cases; [6 marks]

(b) how, with luck, to exclude large numbers of points from the convex hull of a set of points in the plane, with due consideration of what can go wrong; [7 marks]

(c) how to compute economically the convex hull of the points that are left after the measures you have described in (b) above. [7 marks]