962-54-704   **Khalid Bouhjar** (`kbouhjar@cs.vu.nl`), Division of Mathematics and Sciences, Vrije Universiteit, De Boelelaan 1081A, 1081 HV Amsterdam, Netherlands, and **Jan J Dijkstra*** (`jdijkstr@obelix.math.ua.edu`), Department of Mathematics, University of Alabama, Box 870350, Tuscaloosa, AL 35487-0350. *On the structure of n-point sets.*

Let n be an integer greater than one. Our main result, called the "Structure Theorem", is that a planar set that contains $n-1$ disjoint continua that are cut by a single line cannot be an n-point set, i.e. a set that meets every line in exactly n points. This theorem unifies and significantly improves upon a number of known theorems. We also present a several theorems that address the question when a set that meets every line in at most n points can be extended to an n-point set. These theorems also highlight the sharpness of the Structure Theorem. (Received September 21, 2000)