1033-52-202 **Carlos M. Nicolas*** (cnicolas@ms.uky.edu), Department of Mathematics, University of Kentucky, Lexington, KY 40506-0027. *Upper bounds for the number of polygons in the minimum convex subdivisions of points in the plane.*

Given a finite set S of points in the plane, a convex subdivision (or convex partition) of S is a covering of the convex hull of S with non-overlapping empty convex polygons whose vertices are points of S. A minimum convex subdivision of S is one with a minimum number of polygons. Let $G(S)$ be the number of polygons in a minimum convex subdivision of S. Define $g_h(n)$ as the maximum value of $G(S)$ among all the sets S of n points in general position in the plane with h extreme points. Let $g(n)$ be the maximum value of $g_h(n)$ for all h. We obtain upper bounds for the functions g and g_h. For $h = 3$, the bound is tight. (Received September 10, 2007)