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Erdős, Paul

Distances in convex polygons. (In English)

Geombinatorics 1, No.3, 4 (1991).

Let x_1, \dots, x_n be the vertices of a convex n -gon. Then the number of distinct distances $d(x_i, x_j)$, $1 \leq i, j \leq n$ is at least $\lfloor n/2 \rfloor$ (Erdős problem; proved by *E. Altman*, Am. Math. Mon. 70, 148- 157 (1963; Zbl 189.22904)).

The author formulates some analogous problems about distances in convex polygons and polyhedrons with reference to other investigations.

E. Quaisser (Potsdam)

Classification:

52C10 Erdos problems and related topics of discrete geometry

52A40 Geometric inequalities, etc. (convex geometry)

Keywords:

Erdős problems; distance problems