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**Erdős, Paul; Pach, János**

*On a quasi-Ramsey problem.* (In English)

**J. Graph Theory 7, 137-147 (1983).** [0364-9024]

The authors define  $R_t(n)$  as the smallest natural number  $R$  such that, for any graph  $G$  of order  $R$ , either  $G$  or the complement of  $G$  contains a subgraph  $H$  of order at least  $n$  and minimum degree at least  $t|V(H)|$ . They show that for each fixed  $t > \frac{1}{2}$ , the function  $R_t(n)$  increases exponentially whereas it is bounded above by a linear function for each fixed  $t < \frac{1}{2}$ . Finally, they show that  $R_{1/2}(n) < cn \log n$  and that this is close to best possible.

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Classification:

05C55 Generalized Ramsey theory

60C05 Combinatorial probability

Keywords:

complement of graph; subgraph; minimum degree