
Zbl 014.01104
Erdős, Pál
A generalization of a theorem of Besicovitch. (In English)
J. London Math. Soc. 11, 92-98 (1936).

Let δ_a denote the density of the set consisting of all numbers which have a divisor between a and $2a$. It was proved by *A.S.Besicovitch* (see Zbl 009.39504) that $\liminf_{a\to\infty} \delta_a = 0$. Let d_a denote the density of the set consisting of all numbers which have a divisor between a and $a^{1+\varepsilon_a}$. The author proves that if $\varepsilon \to 0$ as $a \to \infty$ then $d_a \to 0$. This is easily seen to be the best possible result of its kind. It is impossible to given a sketch of the highly ingenious proof within the limits of a review.

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Classification:
11N25 Distribution of integers with specified multiplicative constraints