**Zbl 012.05202**
**Erdős, Paul**
*Note on sequences of integers no one of which is divisible by any other.* (In English)
**J. London Math. Soc. 10, 126-128 (1935).**

It was proved recently by *A.S.Besicovitch* (Zbl 009.39504) that a sequence $a_1, a_2, ...$ of integers no one of which is divisible by any other does not necessarily have density zero. It is here proved that for such a sequence, $\sum \frac{1}{a_n \log a_n} < c$, an absolute constant, so that the lower density is necessarily zero. (For a different proof by Behrend see the foll. review.) In the above connection Besicovitch (l.c.) proved that if $d_a$ denotes the density of those integers which have a divisor between $a$ and $2a$, then $\lim_{a \to \infty} \inf d_a = 0$. It is shewn here that $\lim \inf$ may be replaced by $\lim$. The proof follows easily from a result of the Hardy-Ramanujan type, which is roughly: the normal number of prime factors less than a of an integer is $\log \log a$ for large $a$.

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Classification:
11B83 Special sequences of integers and polynomials
11N25 Distribution of integers with specified multiplicative constraints