Zbl 144.28103
Erdős, Pál
Extremal problems in number theory (In English)
Proc. Sympos. Pure Math. 8, 181-189 (1965).
Several problems are discussed of which the following are typical examples;
1. Determine the maximum number of integers not exceeding n, no k of which form an arithmetic progression.
2. Is the maximum number of integers not exceeding n from which one cannot select $k+1$ integers which are pairwise relatively prime equal to the number of integers not exceeding n which are multiples of at least one of the first k primes?
3. Let $f(n; a_1, ..., a_k)$ be the number of solutions of $n = \sum_{i=1}^{k} \varepsilon_i a_i, \varepsilon_i = 0$ or 1 where the a_i are k distinct real numbers. Is $\max_{n, a_1, ..., a_k} f(n, a_1, ..., a_k) < c\frac{2^k}{k^{3/2}}$?

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Classification:
11B75 Combinatorial number theory
11B25 Arithmetic progressions