

Zbl 472.10002

**Erdős, Paul**

*Some problems and results on additive and multiplicative number theory.* (In English)

**Analytic number theory, Proc. Conf., Temple Univ./Phila. 1980, Lect. Notes Math. 899, 171-182 (1981).**

[For the entire collection see Zbl 465.00008.]

In this wide-ranging article, the author describes some intriguing problems that have interested him and others, and he states some old and new conjectures. The first section deals with various questions concerning the divisors of  $n$ . The second is concerned with bounds for the greatest  $k$  for which the sums  $a_i + a_j$ , where  $1 \leq a_1 < \dots < a_k \leq n$ , are distinct. The final section describes a variety of problems on squarefree integers and similarly constructed sequences, including those on the gaps between consecutive elements, and ends with an interesting theorem on squarefree integers.

*E.J.Scourfield*

Classification:

11-02 Research monographs (number theory)

11N05 Distribution of primes

11B83 Special sequences of integers and polynomials

11B75 Combinatorial number theory

00A07 Problem books

Keywords:

problems; divisors and prime factors of integers; additive problems; differences of consecutive primes; sequences defined by divisibility properties; distinct sums; squarefree integers; gaps between consecutive elements