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Erdős, Paul

Some of my favorite problems and results. (In English)

Graham, Ronald L. (ed.) et al., The mathematics of Paul Erdős. Vol. I. Berlin: Springer, Algorithms Comb. 13, 47-67 (1997). [ISBN 3-540-61032-4/hbk]

This is another fine problem collection of the “unforgettable” Paul Erdős. Starting with a problem in number theory from 1931 (!) on distinct subset sums he touches upon numerous problems concerning arithmetic progressions, Sidon sequences, divisors, prime factors, polynomials, as well as problems from combinatorics (Ramsey) and geometry (distinct points in the plane). Let me close this review citing the author’s own words: In this note I would like to describe a variety of my problems which I would classify as my favourites. Of course, I can’t guarantee that they are all “acorns”, but because many have thwarted the efforts of the best mathematicians for many decades (and have often acquired a cash reward for their solutions), it may indicate that new ideas will be needed, which can in turn, lead to more general results, and naturally, to further new problems. In this way, the cycle of life in mathematics continues forever.

O.Ninnemann (Berlin)

Classification:

11-02 Research monographs (number theory)

51-02 Research monographs (geometry)

00A07 Problem books

05-02 Research monographs (combinatorics)

11Bxx Sequences and sets of numbers

11Nxx Multiplicative number theory

Keywords:

number theory; problems; polynomials; combinatorics; geometry