

Quotient and Product Sets of Subsets of the Positive Integers

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For a set A of non-zero integers, A/A and AA denote the set of rational numbers (and respectively integers) that can be expressed as the ratio (respectively product) of a pair of elements of A . We describe some problems where these ratio and product sets are of interest. We then give a number of results on the cardinalities of A/A and AA for various special subsets A , including random subsets, of the set of the first n positive integers. This talk is based on a pair of papers with J. Cilleruelo and O. Ramare.