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**Lower bounds and reduction procedures for the bin packing problem.** (English)

Zbl 0704.90074

Discrete Appl. Math. 28, No. 1, 59-70 (1990).

Summary: The bin packing problem, in which a set of items of various sizes has to be packed into a minimum number of identical bins, has been extensively studied during the past fifteen years, mainly with the aim of finding fast heuristic algorithms to provide good approximate solutions. We present lower bounds and a dominance criterion and derive a reduction algorithm. Lower bounds are evaluated through an extension of the concept of worst-case performance. For both lower bounds and reduction algorithm an experimental analysis is provided.

**MSC:**

90C27 Combinatorial optimization

90-08 Computational methods for problems pertaining to operations research and mathematical programming

Cited in **1** Review  
Cited in **45** Documents

**Keywords:**

bin packing; lower bounds; reduction algorithm; worst-case performance

**Full Text:** [DOI](#)

**References:**

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