Let $h \in \mathbb{N}$. A set A of nonnegative integers such that every sufficiently large integer is representable as the sum of h elements of A is called an asymptotic basis of order h. In this paper a number of old and new problems concerning the classical asymptotic bases (squares, higher powers, primes) as well as the general properties of asymptotic bases are discussed. Of special interest are questions about the existence of minimal bases A, i.e. A is an asymptotic basis of order h but no proper subset of A has this property.

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