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Abstract

In this paper, we derive an asymptotic upper bound for the number of Fiven (Factorial-Niven) numbers. A Niven number is a number that is a multiple of its digital sum. Dalenberg and Edgar recently defined a Fiven number as a number that is a multiple of its digital sum using the digits from its representation in factorial-base notation. To derive our upper bound, we closely follow the methods first used by Cooper and Kennedy and later by DeKoninck and Doyon and others for their derivations of asymptotic bounds for base-10 and other fixed-base Niven numbers.