ON THE INTERSECTION OF THE SETS OF

BASE b SMITH NUMBERS AND NIVEN NUMBERS

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Let $p_1, \ldots, p_r$ be distinct primes and

$$m = \prod_{i=1}^{r} p_i^{e_i}$$

be a base b integer. We denote by $S(b, m)$ the sum of the digits of

m, and, by

$$S_p(b, m) = \sum_{i=1}^{r} e_i S(b, p_i) \ ,$$

the sum of all the digits of the prime factors of m. The set

$$\big\{ m : S(b, m) = S_p(b, m), m \text{ composite } \big\}$$

shall be denoted by S, and the set

$$\big\{ m : S(b, m) | m \big\} \ ,$$

by N.

During recent years a number of properties of the sets S and N

have been established. We list several papers which are relevant in

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