There is now a wealth of literature on problems concerning consecutive divisors of an integer, to which the present paper makes a further interesting contribution. Let $1 = d_1 < d_2 < ... < d_{\tau(n)} = n$ denote the divisors of n; the authors study, amongst others, the functions

$$f(n) = \text{card}\{i : \quad 1 \le i < \tau(n), \quad (d_i, d_{i+1}) = 1\}, \quad H(n) = \sum_{1 \le i < \tau(n)} (d_{i+1} - d_i)^{-1}.$$

The results obtained are too complicated and numerous to state here, but we indicate the type of problems investigated. The authors derive, for example, estimates from above for $f(n)$ and from below for $\max_{n \le x} f(n)$, with a similar treatment for $H(n)$, and they show that H has a distribution function. They are able to improve their own upper estimate for $\sum_{n \le x} f(n)$ in [Bull. Soc. Math. Fr. 111, 125-145 (1983; Zbl 526.10036)] and the error term in the formula for $\sum_{n \le x} H(n)$ established by *A. Ivić* and *J.-M. De Koninck* in [Can. Math. Bull. 29, 208-217 (1986; Zbl 543.10034)].

E.J.Scourfield

Classification:
11N05 Distribution of primes
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