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Erdős, Paul; Pomerance, Carl; Schmutz, Eric
Carmichael's lambda function. (In English)
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Let $\lambda(.)$ be Carmichael's function, i.e. $\lambda(n)$ equals the l.c.m of the orders of primitive residues mod n. Using a more explicit representation via Euler's function the authors investigate the average order, normal order, and minimal order of λ. For example they show that for $x \geq 16$

$$\frac{1}{x}\sum_{n\leq x}\lambda(n)=\frac{x}{\log x}\exp\{\frac{B\log\log x}{\log\log\log x}(1+o(1))\}$$

holds with some explicit constant B. Some other problems connected with Euler's function are discussed.

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Classification:
11N37 Asymptotic results on arithmetic functions
11A07 Congruences, etc.
11N45 Asymptotic results on counting functions for other structures

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asymptotic formulas; universal exponent; Carmichael's function; orders of primitive residues; Euler's function; average order; normal order; minimal order