

Werk

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Literatura

- [1] Favard J.: Sur les polynomes de Tchebicheff, Comptes Rendus Acad. Sc. 200 (1935), 2053—3.
- [2] Natanson I. P.: Konstruktivnaja tšorija funkcij, Moskva—Leningrad 1949.
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Summary

NOTE TO FAVARD'S THEOREM

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In literature, the following assertion is usually presented as Favard's theorem: If the system of polynomials $\{P_n(x)\}_{n=1}^{\infty}$, $P_n(x)$ being a polynomial of the n -th degree with the coefficient at the n -th power equal to one fulfils the recurrent relation (1), then this system is orthogonal on $(-\infty, \infty)$ with some weight $v(x)$. In the present paper this theorem is proved for an arbitrary interval under the additional assumption that condition (2) is fulfilled. (2) may be replaced by the assumption that all roots of $P_n(x)$ are included in the interval (a, b) .