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Factor frequencies in generalized Thue-Morse words

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We describe factor frequencies of the generalized Thue-Morse word $t_{\{b,m\}}$ defined for integers b greater than 1, m greater than 0 as the fixed point starting in 0 of the morphism $\phi_{\{b,m\}}$ given by $\phi_{\{b,m\}}(k) = k(k+1)\dots(k+b-1)$, where $k = 0, 1, \dots, m-1$ and where the letters are expressed modulo m . We use the result of A. Frid, On the frequency of factors in a DOL word, Journal of Automata, Languages and Combinatorics 3 (1998), 29-41 and the study of generalized Thue-Morse words by S. Starosta, Generalized Thue-Morse words and palindromic richness, [arXiv:1104.2476v2](#) [math.CO].

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