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**Jonathan M. Borwein, Neil J. Calkin and Dante Manna\*** (dmanna@mathstat.dal.ca),  
Department of Mathematics and Statistics, Dalhousie University, Halifax, NS B3K 1W5, Canada.  
*Chapter 23 of Abramowitz and Stegun.*

Chapter 23 of the famous reference "Handbook of Mathematical Functions" concerns Bernoulli and Euler polynomials and their properties. It includes the well known Euler-MacLaurin summation formula but neglects its alternating counterpart, the Boole summation formula. Heeding a suggestion implicit in a 1960 note by W. Strodts, we are able to find a unified proof of both summation formulae. Our development leads to a useful new generalization of these polynomials. We prove general versions of entries in Ch. 23, thus providing not just proofs but reasons, and many other interesting properties. (Received September 13, 2007)