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Introducing the convolution theorem through DERIVE.

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There can be no doubt of the importance of the convolution theorem to engineers and applied mathematicians. Hitherto, many students have experienced difficulties with the concepts of reflection and shift required in the construction of the convolution integrand and with the labour of the subsequent evaluation of the integral. In this paper the author describes how the use of DERIVE has assisted in overcoming both the conceptual difficulties and the evaluation of the integral. Examples are presented for both the discrete and continuous convolutions. (orig.)

Classification: I55