

MONTHLY Problem **11234**
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11234. *Proposed by Jim Brennan and Richard Ehrenborg, University of Kentucky, Lexington, KY.* Let a_1, \dots, a_n and b_1, \dots, b_{n-1} be real numbers with $a_1 < b_1 < a_2 < \dots < a_{n-1} < b_{n-1} < a_n$, let h be an integrable function from \mathbb{R} to \mathbb{R} . Show that

$$\int_{-\infty}^{\infty} h \left(\frac{(x - a_1) \cdots (x - a_n)}{(x - b_1) \cdots (x - b_{n-1})} \right) dx = \int_{-\infty}^{\infty} h(x) dx.$$

Proposed problems and solutions should be sent in duplicate to the MONTHLY problem address:

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Submitted solutions should arrive before October 31, 2006. Additional information, such as generalizations and references are welcome. The problem number and the solver's name and address should appear on each solution.