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Extensions of linear operators from hyperplanes of $l_\infty^{(n)}$

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Abstract: Let $Y \subset l_\infty^{(n)}$ be a hyperplane and let $A \in \mathcal{L}(Y)$ be given. Denote

$$\begin{aligned} \mathcal{A} &= \{L \in \mathcal{L}(l_\infty^{(n)}, Y) : L \mid Y = A\} \text{ and} \\ \lambda_A &= \inf\{\| L \| : L \in \mathcal{A}\}. \end{aligned}$$

In this paper the problem of calculating of the constant λ_A is studied. We present a complete characterization of those $A \in \mathcal{L}(Y)$ for which $\lambda_A = \| A \|$. Next we consider the case $\lambda_A > \| A \|$. Finally some computer examples will be presented.
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