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# A REVERSE OF YOUNG INEQUALITY

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*Abstract.* In this paper, we prove several multi-term refinements of reverse of Young inequality with Kantorovich constant for both real numbers and operators. Among other results, for all $0 \leqslant v \leqslant 1$ and $N \in \mathbb{N}$, $(1-v)a+vb \leqslant (\sqrt{a}-\sqrt{b})^2 - S_N(v;a,b) + K(\sqrt[2^N]{h},2)^{-\beta_N(v)} a^{1-v} b^v$ for all real numbers $a$ and $b$, where $S_N(v;a,b)$ is a certain function defined by Sababheh. Furthermore, we also improved some inequalities with Kantorovich constant.

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