

## NEW INEQUALITIES FOR THE VOLUME OF THE UNIT BALL IN $\mathbb{R}^n$

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**Abstract.** Many interesting monotonicity properties and inequalities for the volume of the unit ball in  $\mathbb{R}^n$  have been established. The main object of this paper is to establish new inequalities for the volume of the unit ball in  $\mathbb{R}^n$ .

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