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Note on special arithmetic and geometric means

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Abstract: We prove: If $A(n)$ and $G(n)$ denote the arithmetic and geometric means of the first n positive integers, then the sequence $n \mapsto nA(n)/G(n) - (n-1)A(n-1)/G(n-1)$ $(n \geq 2)$ is strictly increasing and converges to $e/2$, as n tends to ∞.

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