

ADDENDUM TO: POWERS OF A MATRIX AND COMBINATORIAL IDENTITIES

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Addendum

Prof. Z.-W. Sun has kindly informed us of a two-variable identity similar to one in our paper, that is due to Lagrange in 1741. This identity can be found on pp. 57, 58 in *The New Book of Prime Number Records*, by Paulo Ribenboim, published by Springer-Verlag in 1995. As far as we know, our generalization to an n -variable identity is new, as is our expression of the n th power of a $k \times k$ matrix in terms of its entries (as opposed to its eigenvalues and eigenvectors). We thank Prof. Sun for bringing the Lagrange identity to our notice.