

SHORT PROOFS OF THEOREMS OF MIRSKY AND HORN ON DIAGONALS AND EIGENVALUES OF MATRICES*

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Abstract. A theorem of Mirsky provides necessary and sufficient conditions for the existence of an N -square complex matrix with prescribed diagonal entries and prescribed eigenvalues. A simple inductive proof of this theorem is given.

Key words. Majorization, Eigenvalues, Prescribed diagonals.

AMS subject classifications. 15A42, 15A51.

* Received by the editors May 13, 2009. Accepted for publication July 24, 2009. Handling Editor: Roger A. Horn.

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