This is a review text file submitted electronically to MR.

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Review text:

M-matrix A is defined as a diagonal constant positive shift sI of any non-positive matrix B by more than the spectral radius r=r(B), s ¿ r. The principally (i.e., off-diagonally) non-negative A is called singular iff the dominant eigenvalue of -A vanishes. Then the result Av of action of the singular and almost monotonic irreducible M-matrix A on any vector is shown to be specified as either zero or indefinite in sign (i.e., always possessing components of both signs). The illustrative example appeals, independently, to everybody who loves simplex geometry and/or appreciates that the derivative vanishes at an extreme: In a way separating the (quasi)concave and (quasi)convex cases, the author proves that a certain extremality (so called Pareto's extremality) of a vector-function follows from the principal non-negativity of its matrix of partial derivatives.