Title: On the determinant of general pentadiagonal matrices

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In this paper we consider square matrices with two sub-diagonals and two super-diagonals. We provide an algorithm to transform such matrices (by multiplying them with suitable matrices) to tridiagonal matrices. It is known that tridiagonal matrices can be transformed to diagonal ones (again by multiplying them from both sides by suitable matrices). Thus pentadiagonal matrices can be transformed to diagonal ones and in this way their determinants can be calculated. Two examples show how our method works.

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