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Abstract: Thirty years ago, G.N. de Oliveira has proposed the following completion problems: Describe the possible characteristic polynomials of $[C-ij]$, i, j is an element of $\{1, 2\}$, where $C-1, C-1$ and $C-2, C-2$ are square submatrices, when some of the blocks $C-ij$ are fixed and the others vary. Several of these problems remain unsolved. This paper gives the solution, over the field of real numbers, of Oliveira's problem where the blocks $C-1, C-1, C-2, C-2$ are fixed and the others vary. (C) 2009 Elsevier Inc. All rights reserved.

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