Task20

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Solution. This task is about Singular Value Decomposition (SVD), and the purpose is to prove that $V = S^{-1}U^T A$, assuming that $A = S.U.V$.

Let's firs multiply both sides by U^T, where U = unitary matrix. It obatins:

$$U^T A = U^T U.S.V \qquad (*)$$

$U^T U = I$(Identity matrix), (*) becomes:

$$U^T A = S.V \qquad (**)$$

From (**), we obtain :

$$S^{-1}U^T A = V$$

□