

# Matrices in Geometry 12.155

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**Question:** The eigenvalues of a matrix are  $i$ ,  $-2i$  and  $3i$ . The matrix is

- 1) unitary                      2) anti-unitary                      3) Hermitian                      4) anti-Hermitian

**Solution:**

We know that all the eigenvalues of an anti-Hermitian matrix are either 0 or purely imaginary. Therefore, the matrix is anti-Hermitian.

Thus option 4) is correct