

## 1 | **Axler 5.B Exercise 13**

Suppose  $W$  is a complex vector space and  $T \in \mathcal{L}(W)$  has no eigenvalues. Prove that every subspace of  $W$  invariant under  $T$  is either  $\{0\}$  or infinite-dimensional.

## 2 | **Proof**