Source:

1 | **Axler 3.A source**

2 | **invariant subspace def**

Suppose $T \in \mathcal{L}(V)$. A subpsace U of V is called *invariant* under T if $u \in U$ implies $Tu \in U$.

2.1 | **intuit**

A subspace U is called invariant on T if $T\big|_U$ is closed in U. (BUT it is not neseccarily an operator!) Aka the map is closed under the subspace.