



Definition

An *operator* (or *linear operator*) is a *linear* transformation where the codomain is the domain. In other words, an operator is a linear transformation with a particular domain and codomain. Warning: some authors refer to linear transformations as operators. For us, and many other mathematicians, the word operator is reserved for the case in which the codomain is the domain.

Notation

Suppose V is a vector space. We usually abbreviate the notation for the set of operators to $\mathcal{L}(V)$ from $\mathcal{L}(V, V)$.

