Answer on Question #32979 – Math – Linear Algebra

Let U be a vector space over a field F, a function T(u) = u for all u∈U is called ……..

linear transformation

identity transformation

non linear transformation

reflective transformation

Solution

Identity transformation is special linear transformation, for which T(u) = u. There are linear transformations for which $T(u) \neq u$. Function T(u) = u cannot be nonlinear by definition.

A reflection is a kind of transformation. It is basically a 'flip' of a shape over the line of reflection. We don't have such line. Thus, it's not true.

Answer: identity transformation.