

Source:

A quotient space is similar to a modulo because both take some subpart of the structure and smoosh it to zero.

1 | looking at V/U

1.1 | **set of affine subsets ($\{v+U : v \in V\}$)**

1.2 | **"modding out by U " (a subspace) means it gets collapsed to zero**

1.2.1 | **could just "call the line zero" or carry the entire thing as an element**

1.2.2 | **these are NOT subspaces because most of them don't include zero!**

1.3 | **V/U is isomorphic to the perpendicular line**