planetmath.org

Math for the people, by the people.

orbit

Canonical name	Orbit
Date of creation	2013-03-22 12:12:20
Last modified on	2013-03-22 12:12:20
Owner	djao (24)
Last modified by	djao (24)
Numerical id	6
Author	djao (24)
Entry type	Definition
Classification	msc 20M30

Let G be a group, X a set, and $\cdot : G \times X \longrightarrow X$ a group action. For any $x \in X$, the *orbit* of x under the group action is the set

$$\{g \cdot x \mid g \in G\} \subset X.$$