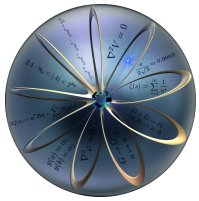

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normed plane

Canonical name	NormedPlane
Date of creation	2013-03-22 16:50:30
Last modified on	2013-03-22 16:50:30
Owner	Mathprof (13753)
Last modified by	Mathprof (13753)
Numerical id	6
Author	Mathprof (13753)
Entry type	Definition
Classification	msc 46B20
Defines	Minkowski plane
Defines	Minkowski geometry

A *normed plane* is a pair $(\mathbb{R}^2, ||\cdot||)$, where the function $x \to ||x||$ is a norm.

If we define a distance function $d(x, y) = ||x - y||$ then the metric space $(\mathbb{R}^2, d)$ is called a *Minkowski plane* or a *Minkowski geometry.*

The classical examples of Minkowski and normed planes are the p-norm $||x||_p = (|x_1|^p + |x_2|^p)^{1/p}$ where $1 \leq p < \infty$ and the maximum or supremum norm $||x||_\infty = \max\{|x_1|, |x_2|\}$.