Xmath Documentation

October 20, 2020

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1 Introduction

The Xmath package is an easy way to write math in LaTeX. Xmath is an extension of the `amsthm`, `amssymb`, `amsmath` and `dsfont` packages. This package implements a large number of macros for sets, functions, operators commonly used in math. Xmath is a project developed by Martin Debaisieux, student at the University of Mons (UMONS) in Belgium. If you have any suggestions, please send me a pull request on `https://github.com/MartinDbx/xmath-package`.

2 Macros

2.1 Classical sets

`\nat` The set of all natural numbers $\mathbb{N}$.

`\intg` The set of all integer numbers $\mathbb{Z}$.

`\rat` The set of all rational numbers $\mathbb{Q}$.

`\real` The set of all real numbers $\mathbb{R}$.

`\comp` The set of all complex numbers $\mathbb{C}$.

`\field` The field $\mathbb{F}$.

`\ZnZ` The ring $\mathbb{Z}/n\mathbb{Z}$. This macro takes as argument the value of n.

2.2 Other sets

`\A` The alternating group A.

`\Aut` The automorphism group Aut.

`\D` The dihedral group D.

`\E`	The set E.
`\im`	The image set im.
`\GL`	The general linear group GL.
`\Graph`	The graph set Graph.
`\L`	The L space.
`\M`	The matrix set M.
`\N`	The normalizer N.
`\O`	The orthogonal group O.
`\Orb`	The orbit Orb.
`\Q`	The quaternion group Q.
`\SL`	The special linear group SL.
`\SO`	The special orthogonal group SO.
`\Stab`	The stabilizer set Stab.
`\S`	The symmetric group S.
`\Z`	The center of a group Z.

2.3 Operators

`\card`	The cardinality of a set card.
`\Id`	The indentity function Id.
`\normal`	The sub group normal symbol $\triangleleft$.
`\gen`	The generating set of a group $\langle g \rangle$. This macro takes as argument the value of g.
`\ord`	The order of an element ord.
`\pgcd`	[FR] The greatest common divisor pgcd.
`\ppcm`	[FR] The lowest common multiple ppcm.
`\Var`	The variance function Var.

2.4 Others

`\xbox`	Draw a box around your parameter x $\boxed{\text{x}}$.

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