Xmath Documentation

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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.

`\sign` The signature of an element sign.

`\Var` The variance function Var.

2.4 Others

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

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