Xmath Documentation

October 16, 2020

Contents

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 $\lhd$.
\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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