Glossary

Mckinley Xie

August 24, 2021

This is intended to be a list of basic definitions for common things in math. This will likely be updated as the year goes on, the most recent version will be at MckinleyX.github.io/files/glossary.pdf.

If you think something should be added to the list, or I've made an error, contact me!

Discord: `faefeyfa#4843`
Email: mckinleyxie@gmail.com

§1 Common symbols

Here's a list of some of the more common symbols you'll see:
$\forall$ — for all
$\exists$ — there exists
$\in$ — is an element of
$\because$ — because
$\therefore$ — therefore
$\mathbb{Z}$ — the set of all integers
$\mathbb{Z}^+$ — the set of all positive integers
$\mathbb{Z}^*$ — the set of all nonnegative integers
$\mathbb{R}$ — the set of all real numbers
$a \mid b$ — a divides b
$\square$ — Used to denote the end of a proof. There are a *lot* of ways to do this, but this is what I use.
$\implies$ — implies. $p \implies q$ if q is true whenever p is true. (Note that if p is false q is not necessarily false.)

§2 Less common symbols

Here are some symbols that are less common:
$\mathbb{Q}$ — the set of all rational numbers
$\mathbb{C}$ — the set of all complex numbers
$\binom{n}{r}$ — n choose r
$\iff$ — if and only if, commonly abbreviated as "iff". $p \iff q$ means that both $p \implies q$ and $q \implies p$.