

Glossary

MCKINLEY XIE

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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 <https://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

\therefore — 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 $q \implies p$.