



MyMath

User manual

Equation tool for InDesign · version 0.25

<https://mymath-indesign.web.app>

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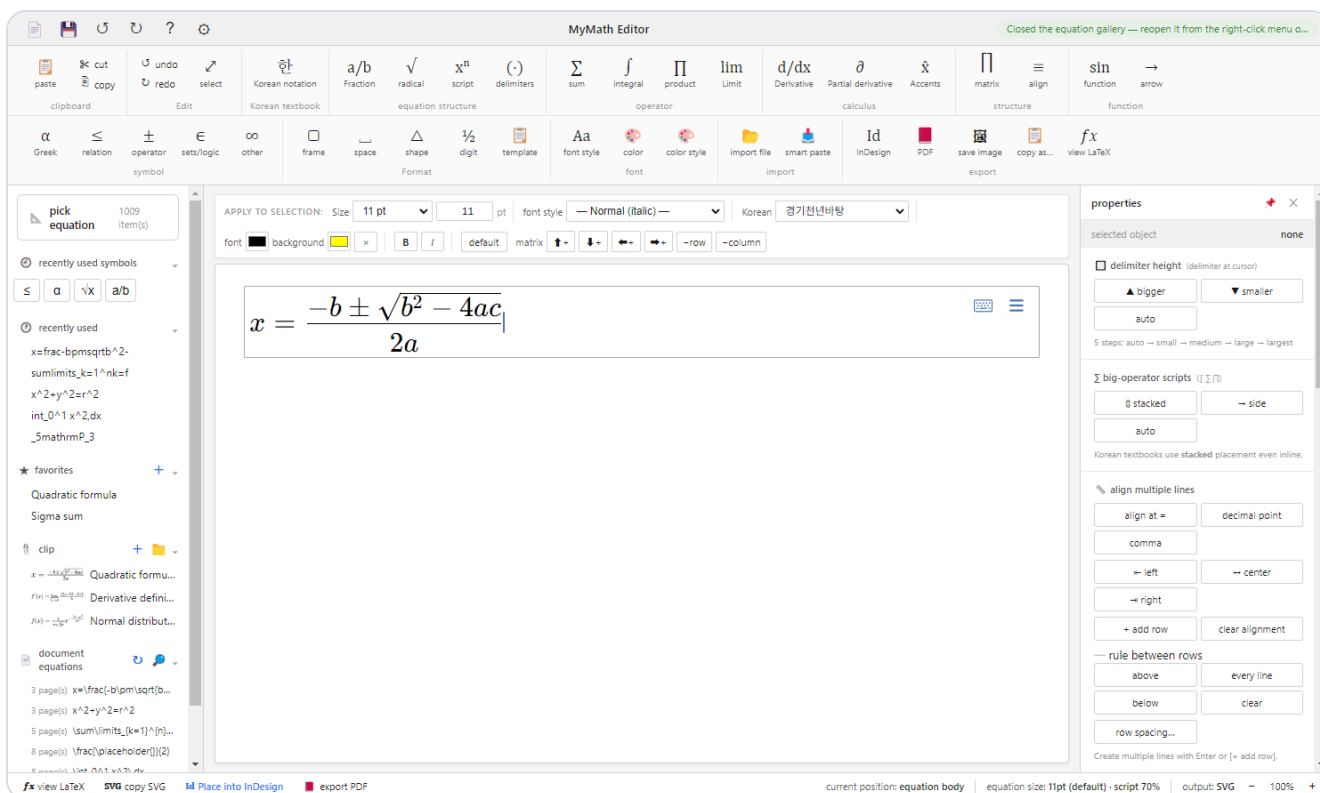
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1. What MyMath is

MyMath puts the equations in your manuscript onto the InDesign page **at print quality**. Equations are placed as **vectors**, not pictures, and black is a **single K plate**, so the pages can go to the printer as they are.



The equation editor — ribbon (top) · sidebar (left) · canvas (center) · properties panel (right)

It comes in two parts

InDesign panel

The control desk: place equations, edit them, and work on the whole document. It lives inside the InDesign window.
Menu [Plugins] → MyMath → MyMath Equations

Equation editor

A separate app where equations are actually built. The panel opens it automatically when needed.
You can also keep it open while you work

The two talk to each other through an **exchange folder** ([Documents\MyMath\exchange](#)). The panel finds and connects to this folder by itself — there is nothing to set up.

What you can do — at a glance

You want to...	In MyMath	Where
Place one equation quickly	Type in the panel's quick-insert box → Enter	4.1
Build a complex equation	Compose in the editor with palettes and shortcuts	Ch. 6
Convert hundreds of equations in a manuscript at once	Write them as $\$....\$$ and click one button	4.3
Edit an equation already placed	Click the equation → [Edit Equation]	4.4
Apply a size or typesetting rule to the whole document	Change the settings, then [Re-render all equations]	Ch. 9
Review only the equations while proofreading	[Send list to editor] plus the proofing check	Ch. 9
Write in Korean textbook notation	The ribbon's first group, "Korean textbook"	Ch. 7
Bring in equations from other programs	MathML · Word · AsciiMath and more, detected automatically	Ch. 11
Get an equation out as a picture or PDF	SVG · PNG · PDF · EPS · WMF	Ch. 11
Prepare files for the printer	K100 · spot color · overprint settings	Ch. 12

What kind of tool this is

- **No fonts to install.** Equation glyphs are drawn as outlines (shapes), so you never have to send fonts to the printer or a contractor, and no "missing font" warning ever appears.

- **No sidecar files.** The equation goes into the document, and its source (LaTeX) is stored in a label on the same frame. With the document file alone you can re-edit at any time. There are no links to break.
- **The source stays as plain text.** An equation's source is LaTeX text, so it is easy to move to another tool later, or to search and replace.
- **Korean textbook notation is supported.** Permutations ${}_nP_r$, repeating decimals, similarity $\sim$, parallel $//$ and more, compiled from the list of symbols in Korea's national mathematics curriculum.
- **Equation size follows the body text.** Next to 9 pt body text the equation is built for 9 pt; next to an 18 pt heading it is built for 18 pt — automatically.
- It is **free**.

What you need

Operating system	Windows 10 or 11
InDesign	18.5 (August 2023) or later Earlier versions have no plugin-panel feature at all, so MyMath cannot run in them
Also	The Adobe Creative Cloud desktop app (used to add the plugin)

Folders MyMath uses

Everything is created under `Documents\MyMath\`. Keep this in mind for backups or for sharing with your team.

<code>exchange\</code>	Temporary files passed between the panel and the editor. You never need to touch these
<code>Clips\</code>	Equation snippets you use often. Share the whole folder and your team uses the same snippets
<code>StyleSets\</code>	Bundles of typesetting settings. Share the folder and everyone's typesetting matches
<code>mmf-symbols.json</code>	Your own symbol table for imports (you can extend it yourself)

2. Install

One installer sets up both the editor and the InDesign plugin. There is nothing to configure.

2.1 Run the installer

- 1 Double-click `MyMath-Setup.exe`.
- 2 It installs without asking anything. The **InDesign plugin is added automatically** along with the editor.
- 3 When it finishes, the editor opens once and a **MyMath Editor** icon appears on the desktop.

If "Windows protected your PC" appears

Click **[More info] → [Run anyway]**. The message shows because this free app is not code-signed yet.

If a message says the plugin could not be added

The installer could not find InDesign 18.5 or later, or the Adobe Creative Cloud app. Install them, then run the installer once more.

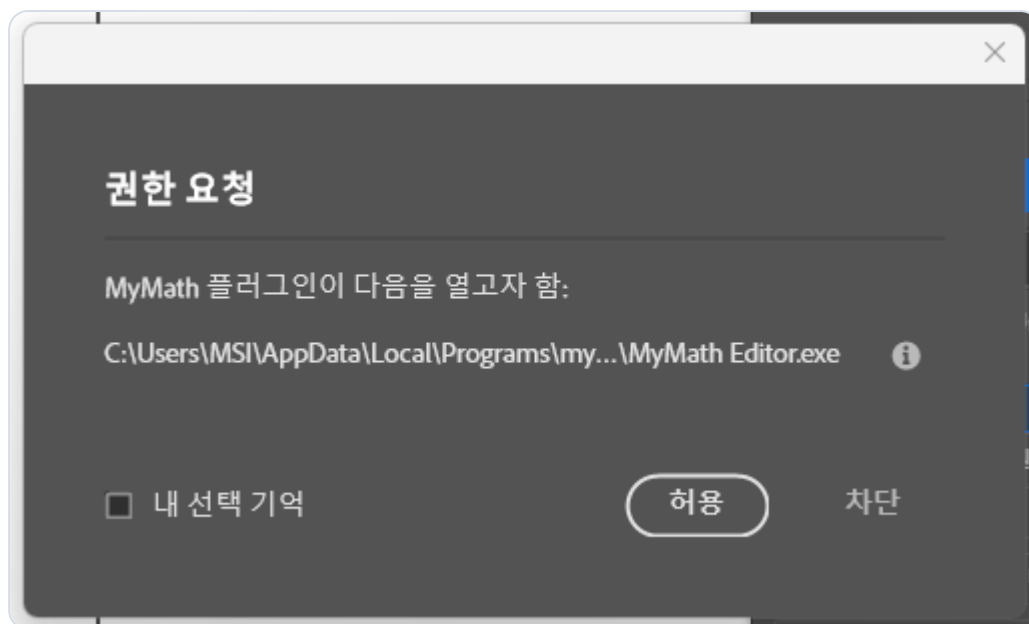
2.2 Open the panel in InDesign

- 1 Start InDesign (if it was already running, quit and start it again).
- 2 Choose **[Plugins] → MyMath → MyMath Equations**.
- 3 If the **Folder** box under "Connection settings" at the bottom of the panel already shows a path, you are ready.

The panel finds and connects to the exchange folder (`Documents\MyMath\exchange`) by itself, and locates the editor automatically too.

2.3 First time only — [Allow]

The first time you place an equation, InDesign asks whether the MyMath plugin may open "...MyMath Editor.exe". Tick **[Remember my choice]** and click **[Allow]**. It won't ask again.



Adobe's security prompt — it applies to every plugin in the same way. (Shown here in Korean.)

2.4 Requirements

Item	Requirement
InDesign	18.5 (August 2023) or later. Earlier versions cannot run this kind of plugin panel.
Operating system	Windows 10 / 11
Adobe Creative Cloud app	Used to add the plugin. If you use InDesign, you already have it.

2.5 Updating · uninstalling

To **update**, simply run the new installer. The editor and the plugin are replaced together and your settings are kept.

To **uninstall**, go to Windows Settings → Apps and remove "MyMath Editor". The editor and the InDesign plugin are removed together. Equations already placed in your documents stay, and print exactly as before.

3. Your first equation in 5 minutes

This walk-through gets the whole flow into your hands. Follow it in order.

3.1 Placing an equation

- 1 In InDesign, create a text frame and type `Quadratic equation`.
- 2 **With the cursor still there**, type `x^2-5x+6=0` in the panel's **quick-insert box** and press `Enter`.
- 3 A moment later the equation appears at the cursor.

Know this and you are halfway there

The quick-insert box understands input **written the way people write it** — `x^2` , `1/2` , `sqrt(2)` . If you know LaTeX, you can type `\frac{1}{2}` as well.

3.2 Editing the equation you placed

- 1 **Click the equation** you just placed to select it. The panel shows that equation's details.
- 2 Click **[Edit Equation]** in the panel. The editor opens with that equation loaded.
- 3 Change the `6` to an `8`.
- 4 Click **[Id InDesign]** in the editor, or press `Ctrl` + `S`.
- 5 The equation is replaced **in the same spot**.

3.3 Building a longer equation

- 1 Put the cursor in your text and click **[Edit Equation]** in the panel.
- 2 Type `x=` on the editor's canvas.

3 **Ctrl** + **F** (fraction) → type **-b** in the numerator → **Tab** → type **2a** in the denominator.

4 **[Id InDesign]** — it goes into your text.

More ways to build equations are in chapter 6.

3.4 Deleting an equation

Delete it like any other character in your text. An inline equation behaves as a single character, so **Backspace** removes it.

4. Four ways to place an equation

Pick whichever fits the situation. The quality of the result is identical for all four.

When	Method	Speed
One short equation	Quick insert — type in the panel → Enter	Fastest
A complex or long equation	The editor — compose with the palettes in view	Normal
The manuscript is full of equations	Convert $\$...\$$ in the manuscript — all at once	Most efficient
Changing an equation already placed	Click the equation → [Edit Equation]	—

4.1 Quick insert — without leaving InDesign

Type in the input box in the panel's "Edit" section and press **Enter**. There is no trip to the editor window, so this is the fastest way. The editor renders quietly in the background, so **the quality is exactly the same as an equation built in the editor**.

Type this	You get
$\frac{1}{2}$	$\frac{1}{2}$ (fraction)
x^2	x^2 (superscript)
a_1	a_1 (subscript)
$\sqrt{2}$	$\sqrt{2}$ (root)
$(a+b)/(c+d)$	A fraction (the parentheses disappear automatically)
$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	The whole quadratic formula

Type this	You get
<code>sum_(k=1)^n k</code>	Σ (sum)
<code>\frac{1}{2}</code>	LaTeX works too

If an empty slot is left

An unfinished equation with an unfilled slot () is **not placed automatically**; the editor opens and tells you instead. This keeps a broken equation from reaching the page.

4.2 Composing in the editor

- 1 Put the **cursor** where the equation should go and click **[Edit Equation]** in the panel.
- 2 Build the equation in the editor (see chapter 6).
- 3 **[Id InDesign]** or **Ctrl + S** — it is placed at the cursor.

The editor **reads the body text size at that spot and sizes the equation to match**. The editor's status bar shows something like "fitted to body size: 9.5pt".

If you clicked without placing the cursor

With no text cursor, the equation becomes a free-standing object on the page. To place it inline, always put the text cursor in first.

4.3 Converting \$...\$ in a manuscript — when there are many equations

Instead of placing equations one at a time, you **write them into the manuscript in advance and convert them all at once**. For work with hundreds of equations, such as a textbook, this saves a great deal of time.

How to write the manuscript

Wrap each equation in dollar signs. It is **just plain text** in Word, Hangul or anywhere else, so it transfers without trouble.

The solutions of the quadratic equation $ax^2+bx+c=0$ are $x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$.
 The number of roots depends on the sign of the discriminant $D=b^2-4ac$.

Converting

- 1 Flow the manuscript into InDesign — **File** → **Place** (**Ctrl** + **D**).
 For Word or Hangul files, [Place manuscript] below is quicker.
- 2 Choose the **scope** in the panel's "Document" section (whole document / selected frame).
- 3 Click **[Convert \$...\$ equations]**.
- 4 The editor opens automatically, builds the equations, and each spot is replaced in turn.
- 5 When it finishes, the panel reports how many were placed, skipped and failed.

One sentence to your authors is all it takes

Set "wrap equations in $\$...\$$ " as a rule for manuscripts, and the equation work disappears from the typesetting stage altogether.

Good to know

- Only $\$...\$$ on a single line is found. An equation that runs across a line break is not recognized.
- To write a real dollar sign, put a backslash in front, as in $\$1,000$. The conversion skips it.
- Each equation is built for **the text size at its own spot**. Documents with mixed sizes just work.

For Word and Hangul manuscripts — [Place manuscript]

If the manuscript is a Word ($.docx$) or Hangul ($.hwp$) file with equations inside it, you can flow it in and convert it in a single step.

- 1 Put the cursor in a text frame.

- 2 In the panel's "Document" section, click **[Place manuscript (Word · HWPX)]** and pick the manuscript file.
- 3 The text flows in at the cursor, and the equations in the manuscript (Word equations, Hangul equations) become equation graphics automatically.

Old Hangul files (.hwp)

Re-save them in **HWPX** format in Hangul first. If any equations could not be converted, a marker is left in their place and the count is reported.

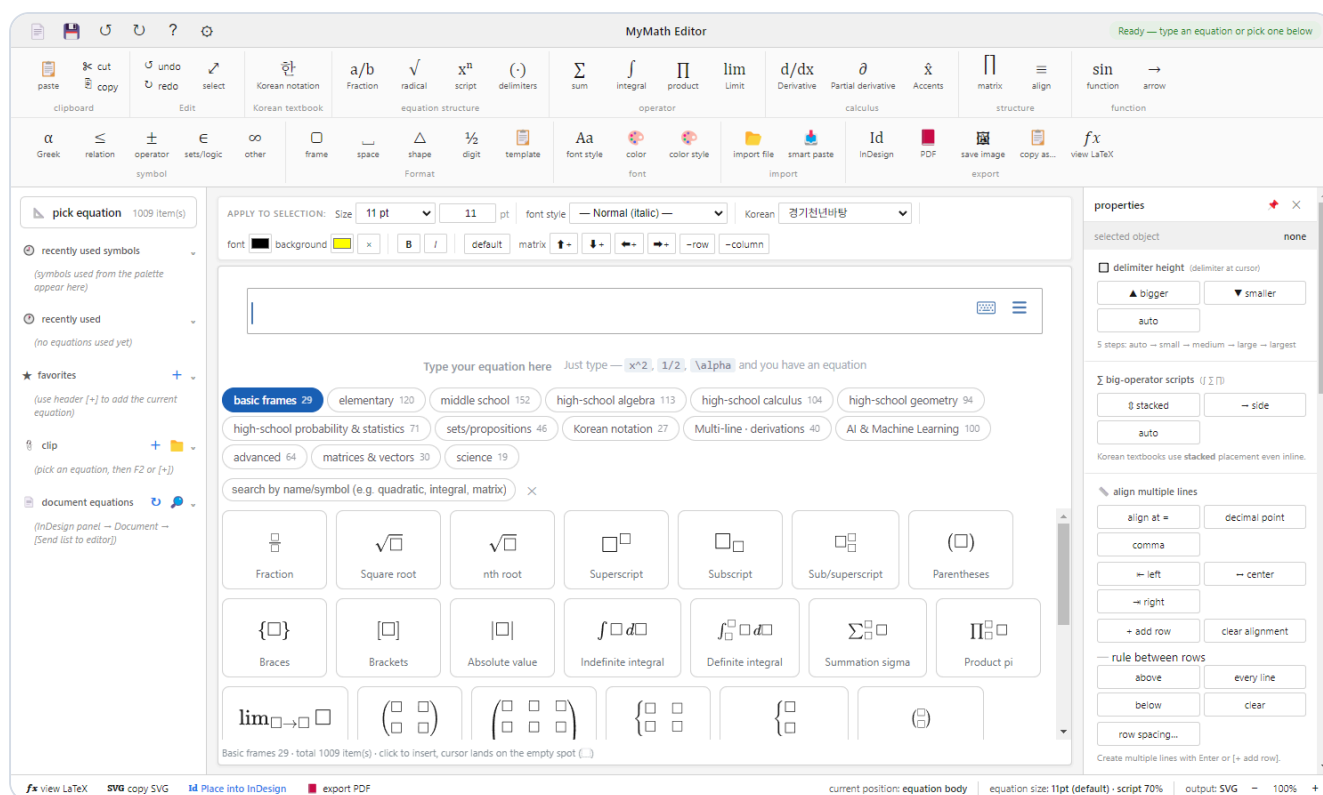
4.4 Editing an equation already placed

- 1 **Click the equation** in the document to select it. The panel shows its details (content · size · body text size · vertical position).
- 2 **[Edit Equation]** — the editor opens with that equation loaded. The editor's status bar shows "re-edit mode".
- 3 Make your change, then **[Id InDesign]** — **the same spot** is replaced with the new equation. The surrounding text reflows naturally.

To go through every equation in a document, Send list to editor in chapter 9 is more convenient. You can open any equation for editing with one click in the list, without hunting through the document.

5. The editor window

The MyMath editor window is divided into six large areas. This chapter explains, one by one, **every button and display** in those six areas. If you come across something on screen and do not know what it means, look up its name in this chapter.



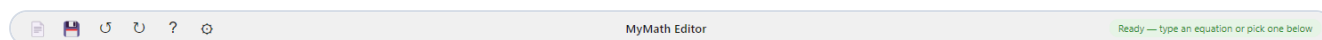
The editor as first opened. From the top: menu bar · title bar · ribbon (2 rows) · the three middle columns (sidebar · canvas · properties panel) · status bar.

Overall layout

Area	Where	What it does	Explained in
Menu bar	Top of the window	File · Edit · Format · View · Size · Window · Help — the route to every function	5.7
Title bar	Below the menu bar	The six most-used quick buttons + the status message	Just below

Ribbon	2 rows below the title bar	Palettes for choosing symbols and structures, and the export buttons	5.1
Sidebar	Left	Pick equation · recent symbols · recently used · favorites · clips · document equations	5.2
Precision control bar	Just above the canvas	Applies size · font style · color · weight to the selection	5.3
Canvas	Middle	Where you actually type and edit the equation	5.4
Properties panel	Right	Fine adjustments to the object the cursor is in (fraction, matrix, delimiters...)	5.5
Status bar	Bottom of the window	Four quick actions + current status + zoom	5.6

The title bar



Six quick buttons on the left, the program name in the middle, the status message on the right.

Button	Name	What it does	Shortcut
	New equation	Clears the canvas and starts a new equation.	Ctrl+N
	Place into InDesign	Places the current equation in the InDesign document. When re-editing, it replaces that spot.	Ctrl+S
	Undo	Undoes the last edit on the canvas.	Ctrl+Z
	Redo	Reapplies an edit that was undone.	Ctrl+Shift+Z
	About MyMath	Opens a small window showing the program name, version and components.	—

**Preferences**

Opens the typesetting settings: style sets · equation size · print color · spacing · typefaces and more.

Ctrl+;

The **status message** at the right end of the title bar tells you, in one line, the result of what you just did. Insert a symbol from a palette and it says, for example, "inserted: square root (radical)"; after a wrong move it tells you what to do, as in "place the cursor inside the fraction to convert". **If you clicked something and the screen did not change, look here first.**

5.1 The ribbon

The ribbon has two rows, a **top row** and a **bottom row**, with a thin line between them. Each row is divided into several **groups**, and the group name is written in gray *below* the buttons.

There are two kinds of button.

- **Large buttons** — a glyph (a picture of the symbol) on top and the name underneath. Most of them open a *symbol gallery*.
- **Small buttons** — single-line buttons stacked vertically inside a group (cut, copy and so on).

What happens when you click a category button

- 1 Click a large category button in the ribbon (for example **✓ radical**).
- 2 The **symbol gallery window** for that category opens. Each item is drawn in its real shape, and hovering over it shows a description.
- 3 Click an item and **it is inserted at the cursor in the canvas and the window closes**.

Good to know

The gallery window also closes when you press **Esc** or **click outside** it. Hover over a ribbon button and a tooltip tells you how many items that category holds.

A faster way

If you do not know which category something is in, open **symbol search** with **Ctrl+ /** . Type a name and it is found at once, whatever the category. It also finds things under everyday names such as "root" or "sigma".

5.1.1 The top row



The top row — clipboard · Edit · Korean textbook · equation structure · operator · calculus · structure · function

The "clipboard" group

Button	What it does	Shortcut
paste (large button)	Inserts the clipboard contents at the cursor.	Ctrl+V
cut	Cuts the selection to the clipboard.	Ctrl+X
copy	Copies the selection to the clipboard.	Ctrl+C

The "Edit" group

Button	What it does	Shortcut
undo	Undoes the last edit.	Ctrl+Z
redo	Reapplies what was undone.	Ctrl+Shift+Z
select (large button)	Selects the whole equation in the canvas. After selecting, you can give size, font style and color in one go.	Ctrl+A

The "Korean textbook" group — only the items whose notation differs from international practice, gathered separately at the front of the ribbon.

Button	What it does
Korean notation	Opens a gallery of permutations and combinations (${}_nP_r$), repeating decimals, similar $\sim$, parallel $//$, vector arrows, the sequence $\{a_n\}$, logarithm and set notation, $\sum$ and $\lim$ with stacked limits, notation containing Korean text and more.

The "equation structure" group

Button	What it does	Related shortcut
--------	--------------	------------------

a/b Fraction	Opens the gallery of fraction forms (display, inline and small fractions, continued fractions and so on).	Ctrl+F (inserts a basic fraction directly)
$\sqrt{}$ radical	Opens the gallery of radicals: square root, nth root and so on.	Ctrl+R / Ctrl+Shift+R
x^n script	Opens the gallery of superscripts, subscripts, prescripts and so on.	Ctrl+H · Ctrl+L · Ctrl+J
(.) delimiters	Opens the gallery of parentheses, square brackets, braces, absolute value, norm and so on.	Ctrl+9 · Ctrl+0 · Ctrl+Shift+9

The "operator" group

Button	What it does	Related shortcut
Σ sum	Opens the gallery of sum signs and their limit forms.	Ctrl+Shift+S
$\int$ integral	Opens the gallery of definite, indefinite, double and line integrals and so on.	Ctrl+I
$\prod$ product	Opens the gallery of product signs.	—
lim Limit	Opens the gallery of limit forms.	—

The "calculus" group

Button	What it does
d/dx Derivative	Opens the gallery of derivative and higher-derivative notation.
∂ Partial derivative	Opens the gallery of partial-derivative notation.
$\hat{x}$ Accents	Opens the gallery of marks placed over letters (vector arrow, hat, bar, tilde and so on).

The "structure" group

Button	What it does	Shortcut
 matrix	Unlike the other buttons, this opens not a gallery but the "matrix wizard". Choose the number of rows and columns and the delimiters, then insert (see 5.1.3).	Ctrl+M
 align	Opens the gallery of multi-line equations, cases and alignment environments.	—

The "function" group

Button	What it does
 sin function	Opens the gallery of function names: trigonometric, logarithmic, exponential and so on. Function names go in upright.
 → arrow	Opens the gallery of arrows of various kinds.

5.1.2 The bottom row

 α Greek	 $\leq$ relation	 $\pm$ operator symbol	 $\in$ sets/logic	 ∞ other	 $\square$ frame	 $\quad$ space	 $\triangle$ shape Format	 $\frac{1}{2}$ digit	  template	 Aa font style	  color font	  color style	  import file import	  smart paste	 Id InDesign	 PDF	  save image export	  copy as...	fx view LaTeX
---	--	---	---	---	--	--	--	--	---	--	--	---	--	--	--	---	---	---	--

The bottom row — symbol · Format · font · import · export

The "symbol" group

Button	What it does	Related shortcut
α Greek	Opens the gallery of Greek capitals and lowercase letters.	Ctrl+G then a letter
$\leq$ relation	Opens the gallery of relation symbols: equality, inequality, similar, congruent and so on.	Ctrl+K then a key
$\pm$ operator	Opens the gallery of operation symbols: the four operations, plus-minus, dot product and so on.	—
$\in$ sets/logic	Opens the gallery of element, subset, union, intersection and logic symbols.	—

∞ other	Opens the gallery of symbols that fit none of the above: infinity, degrees, prime and so on.	—
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The "Format" group

Button	What it does
 frame	Opens the gallery of items that box an equation or add underlines and cancel strokes.
 space	Opens the gallery of spaces, from thin to wide.
 shape	Opens the gallery of shape symbols: triangles, circles, squares and so on.
$\frac{1}{2}$ digit	Opens the gallery of ready-set fraction numerals and superscript and subscript digits.
 template	Opens the gallery of frames for commonly used equations.

The "font" group

Button	What it does
Aa font style	The place for typefaces. To apply a typeface to a selection, use the [font style] drop-down of the precision control bar (5.3).
 color	The place for color. For color, use the color boxes of the precision control bar or [color style] right beside it.
 color style	Opens the window where you create and manage named colors. Only the color name stays in the equation, so when you later change the value of a style, every equation using that color changes with it. Spot color and overprint are set here too.

Three ways to add typefaces and color

- The **[Aa font style]** · **[color]** palettes — insert a typeface or color frame at the cursor. The number-set symbols ($\mathbb{N}$ $\mathbb{Z}$ $\mathbb{Q}$ $\mathbb{R}$ $\mathbb{C}$) and boxes and background colors are here too.
- The **precision control bar** (5.3) — applies directly to *the part you selected* by dragging.
- **[color style]** — give colors names and manage them together across the whole document.

The "import" group

Button	What it does	Shortcut
 import file	Reads other equation files. It accepts <code>.mmf</code> <code>.mmc</code> <code>.eps</code> <code>.mml</code> <code>.mathml</code> <code>.xml</code> <code>.pdf</code> <code>.html</code> <code>.txt</code> <code>.am</code> , and tells the format from the file's contents, not its extension . You can choose several at once, and at the end a report shows what was read and what was not.	—
 smart paste	Works out by itself whether the clipboard holds LaTeX, AsciiMath, MathML or a Word equation and inserts it into the canvas. You do not have to choose a format.	<code>Ctrl+Shift+V</code>

The "export" group

Button	What it does	Shortcut
Id InDesign	Places the current equation in the InDesign document. The button you will click most in this editor.	<code>Ctrl+S</code>
 PDF	Saves the single equation as a PDF file. A dialog asks where to save it.	—
 save image	Saves as PNG · JPEG · GIF · BMP · WMF. You can choose the resolution (dpi) and the background.	—
 copy as...	Shows several formats — LaTeX · AMS LaTeX · Plain TeX · MediaWiki · MathML · AsciiMath · SVG · read-aloud sentence and more — each with a preview , and sends the one you choose to the clipboard.	<code>Ctrl+Shift+E</code>

insert matrix

close X

Presets:

(2×2)

(3×3)

(4×4)

(5×5)

$[2 \times 2]$

$[3 \times 3]$

$|A|$

$\|A\|$

$\{-$

$\equiv$

$(a \ b \ c)$

$(a/b/c)$

$[A|b]$

small

OR CUSTOM

size:

3

$\times$

3

(up to 30×30)

delimiters:

() parentheses

align:

center

applies only inside an array environment

PREVIEW:

3×3 / () parentheses

insert (Enter)

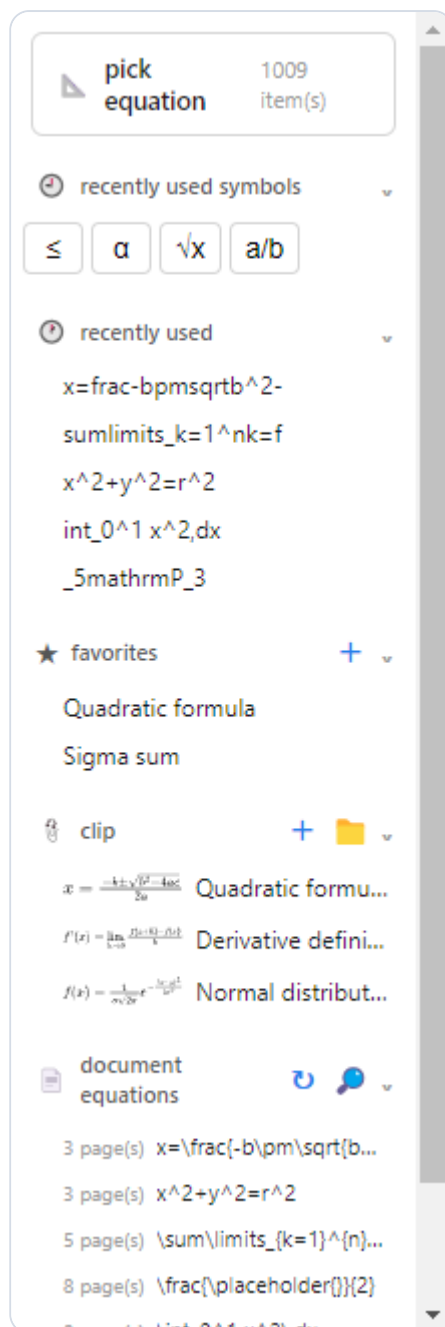
cancel (Esc)

Item	Description
Presets	A list of buttons for choosing a common matrix form in one click.
Size	Set the number of rows × columns yourself. From 1 to 30.
Delimiters	() parentheses · [] square brackets · { } braces · absolute value (determinant) · norm · none · array (with alignment) — seven kinds.
Align	center · left · right. It applies only when the delimiters are set to array.
Preview	Shows in one line what matrix the current settings will give.

[Insert] / Enter inserts, Esc cancels.
[Cancel]

Adding and removing rows and columns after inserting is done with the **precision control bar (5.3)** or **"edit matrix" in the properties panel (5.5)**.

5.2 The sidebar (left)



The sidebar has the [ pick equation] button at the top and, below it, five sections: recently used symbols · recently used · favorites · clips · document equations.

Click the title row of a section to collapse or expand it. Collapse the sections you rarely use and the screen feels much roomier. Clicking the small buttons inside a title row (+, ,  and so on) does not collapse it.

5.2.1 Recently used symbols

Symbols you have just used from a palette gallery or symbol search line up as small pill-shaped chips. Up to **14** are remembered, and using the same symbol again moves it to the front.

- Click a chip to **insert that symbol again at the cursor**.
- In typesetting that uses the same symbols over and over, you do not have to find your way back into the category.
- Clips and characters you type are not recorded here. **Only palette items** are.

5.2.2 Recently used

Keeps up to **10 whole equations** you have edited, most recent first.

- Click an item and **the canvas content is replaced by that equation**. (Unlike recently used symbols, which are inserted.)
- Hover over it and the full LaTeX source appears as a tooltip.

Caution

Clicking an item under "recently used" or "favorites" **replaces the equation that was in the canvas**. If you were working on an equation, place it in InDesign or save it as a clip first.

5.2.3 ★ Favorites

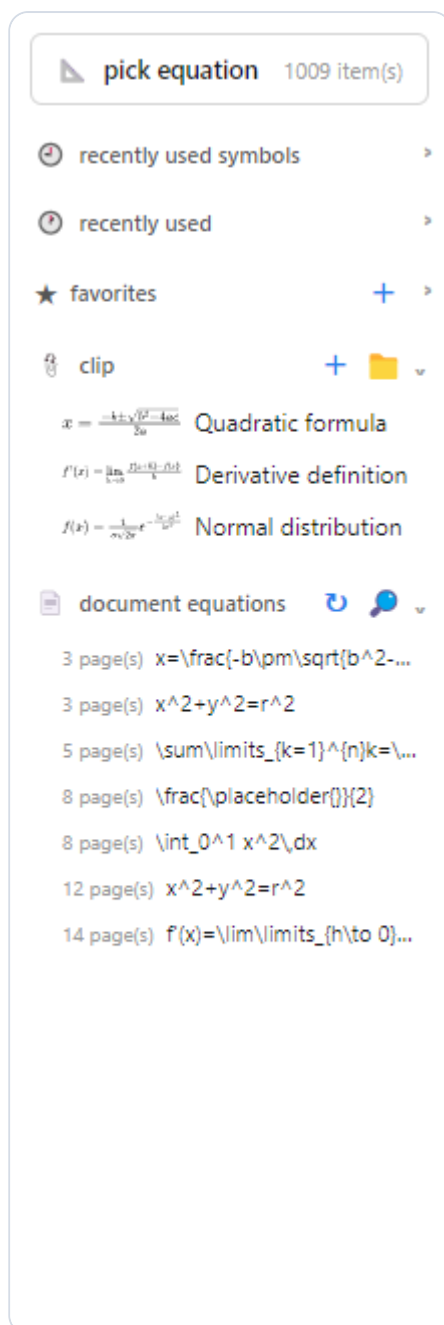
Saves equations you use often on this computer.

Action	Result
[+] in the title row	Adds the equation now in the canvas to favorites. A name is given automatically from the content (fraction, radical, integral, sum, product, limit, matrix, binomial coefficient, scripted expression).
Click an item	Loads that equation into the canvas.

[X] on an item Deletes that favorite.

If you add an equation that is already registered, it says "already in favorites" and does not store a duplicate.

5.2.4 Clips



Clips are shown as a **preview of the equation drawn for real** plus a name

Clips are where you keep frequently used **pieces of equations**, named, **as files**. Where a favorite "replaces the whole canvas", a clip "inserts a piece at the cursor".

Action	Result
[+] in the title row, or F2	Saves only the selection if there is one , otherwise the whole equation, as a clip. A small window asks for a name, with a suitable name already suggested.
Click an item	Inserts it at the cursor. The rest of the canvas stays as it is.
[↵] on an item	Renames the clip.
[X] on an item	Deletes the clip (the file is deleted too).
Drag an item	Changes the order of the list. The new order is written to file, so it is the same the next time you open the editor.
[📁] in the title row	Opens the folder where clips are stored in File Explorer.

Clip files go one by one into the following folder.

~/Documents/MyMath/Clips/

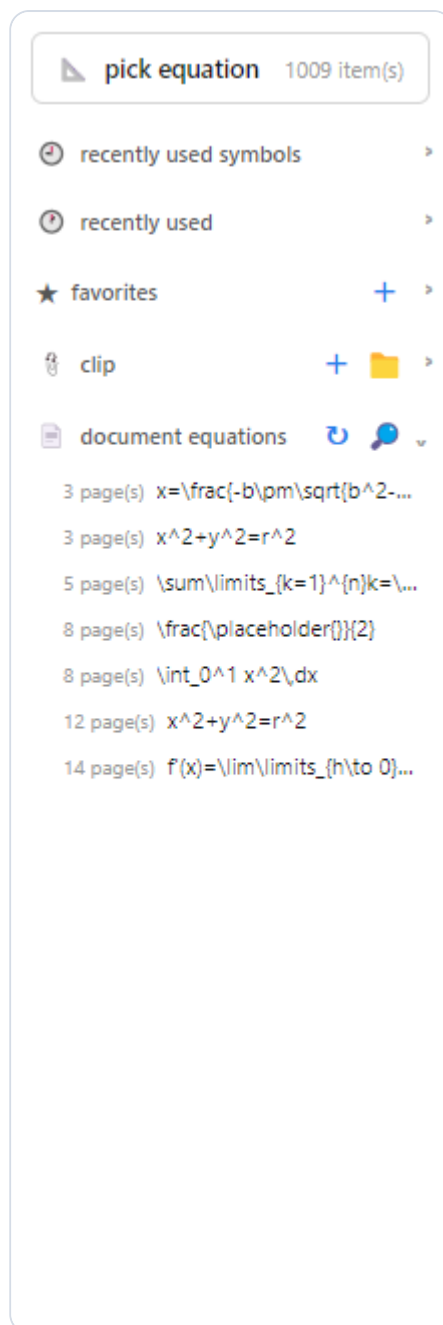
Sharing

Pass this folder along whole and **several people can use the same set of pieces**. It is especially handy for work that repeats the same notation, such as a series of textbooks.

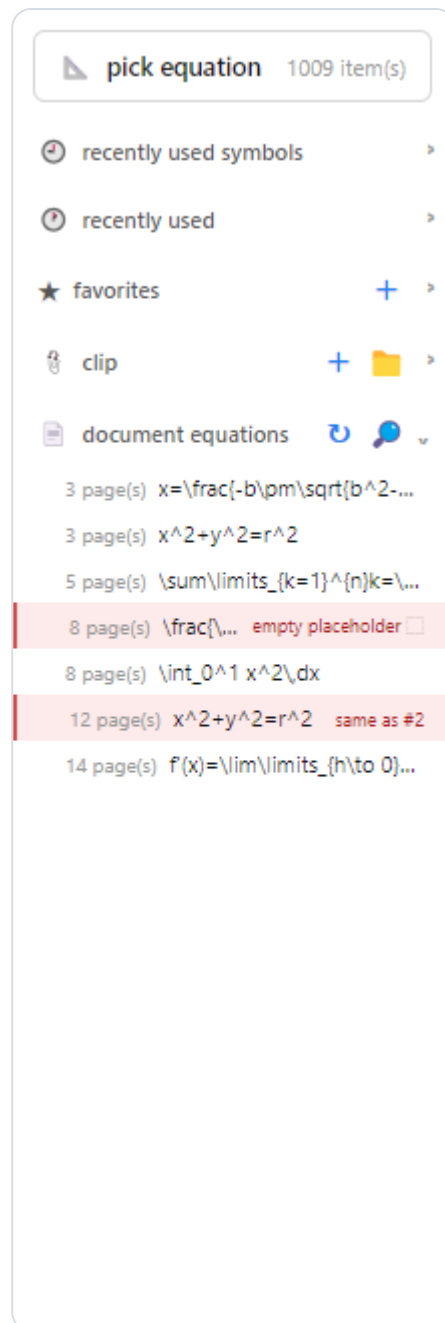
Every item in the list comes with **a preview drawn for real**, so you are never left guessing from the name alone.

5.2.5 Document equations

The section where you **look over the equations in an InDesign document from within the editor, and click one to fix that spot directly**.



Page numbers and equation content are shown together — click to edit that equation at once



 Proofing check — equations with a problem are marked in red (here, one with an empty slot left)

- 1 In the MyMath panel in InDesign, click **[Send list to editor]** under "Document".
- 2 The list arrives by itself under "document equations" in the editor's sidebar. If you do not see it, click **[U]** in the title row.
- 3 The list fills in. Each row shows the **page number** and the beginning of the equation.
- 4 Click a row and that equation comes into the canvas in **re-edit mode**. Place it with **Ctrl+S** in this state and **that spot in the document is updated**.

Button	What it does
	Reads again the list of document equations sent from InDesign.
 (proofing check)	Goes through every equation in the list and marks render errors · empty slots () · empty equations · duplicates . Rows with a problem are shown in red with a tag saying what the problem is. Useful at the proofing stage.

Good to know

With many equations the check takes a while. Progress appears in the status message at the right of the title bar, and at the end it says "Proofing check done — N need review" or "Proofing check done — everything looks fine".

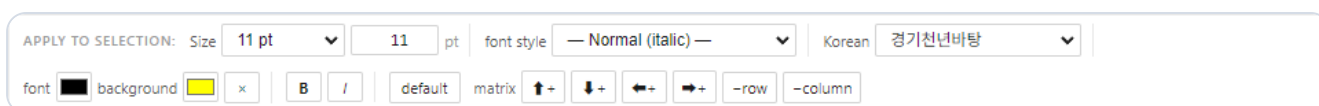
5.2.6 Pick equation

The button at the **top** of the sidebar. Click it and the **equation gallery** opens below the canvas — **14 families and 1009 equations**, from the elementary to high-school curriculum through advanced and AI formulas, shown as cards drawn for real.

Action	Result
Family tabs	Show only the cards of that family. Each tab carries its count.
Search box	Searches all families by name or symbol.
Click a card	Inserts it at the cursor and puts the cursor in the first empty slot ()
	Closes the gallery. It remembers being closed the next time you start the editor.

The gallery is already open when you first start the editor, and **it does not close when you type an equation**. The contents of each family are described in section 6.12.

5.3 The precision control bar



The precision control bar — the words "apply to selection:" at the far left tell you what this bar is for.

Important

The controls of this bar apply **only to the part you have selected by dragging in the canvas**. Click one with nothing selected and you get the note "first drag-select part of the equation". To apply something to the whole equation, select everything first with **Ctrl+A**.

Size

Control	Description
Drop-down	15 common sizes — 6 · 7 · 8 · 9 · 10 · 10.5 · 11 · 12 · 14 · 16 · 18 · 24 · 36 · 48 · 72 pt. It starts at 11 pt.
Input box	Type a size that is not in the list. 1–200 pt, in steps of 0.5 . Type the value and press Enter to apply it.

Good to know

The base size of the whole equation is set not here but under **Preferences → equation size**. Leave the base size at 0 there and the equation follows the InDesign body text size automatically. The size in this bar is for making **just part of an equation larger or smaller**.

Font style

Changes the typeface of the selected part. Choose from eleven.

Item	Shape	Use
— Normal (italic) —	The default state	Removes a typeface you set and returns to the default.
<i>x</i> italic	Slanted	The default shape of variables.
<i>x</i> bold	Slanted + bold	Variables to emphasize.

x roman (upright)	Upright letters	Letters that are not variables: units, function names, abbreviations.
x bold roman	Bold and upright	Common for vector and matrix notation.
x sans-serif	Sans-serif family	—
x monospace	Letters of equal width	Code, listings of numbers.
ℵ blackboard bold	Thick hollow letters	Number-set symbols ($\mathbb{R}$ $\mathbb{N}$ $\mathbb{Z}$ and so on).
x calligraphic	Flowing capitals	—
𝔣 fraktur	Blackletter	—
ℳ script	Script lettering	—

When you change the typeface, **the one that was set before is removed first** and the new one applied, so they never nest.

Color

Control	Description
font (color box)	Sets the text color of the selection. Click it and a color picker opens.
background (color box)	Sets the background color of the selection (use it like a highlighter).
[×]	Removes the background color.

If the job is for print

A color chosen here is a screen color (RGB). For work where separations matter, use **Preferences → print color (separation)** and **[color style]** in the ribbon. For black equations mixed into body text, solid K100 is the default.

Bold · italic · default

Button	What it does	Shortcut
B	Makes the selection bold. If it is already bold, click again to remove it.	Ctrl+B
/	Makes the selection italic. Click again to remove it.	Ctrl+Shift+I
default	Returns the color · background · weight · slant · size of the selection to their initial state in one go.	—

The B and I buttons **mirror the current state at the cursor**. Put the cursor inside bold text and the B button looks pressed. The font style drop-down and the size display likewise follow the cursor automatically.

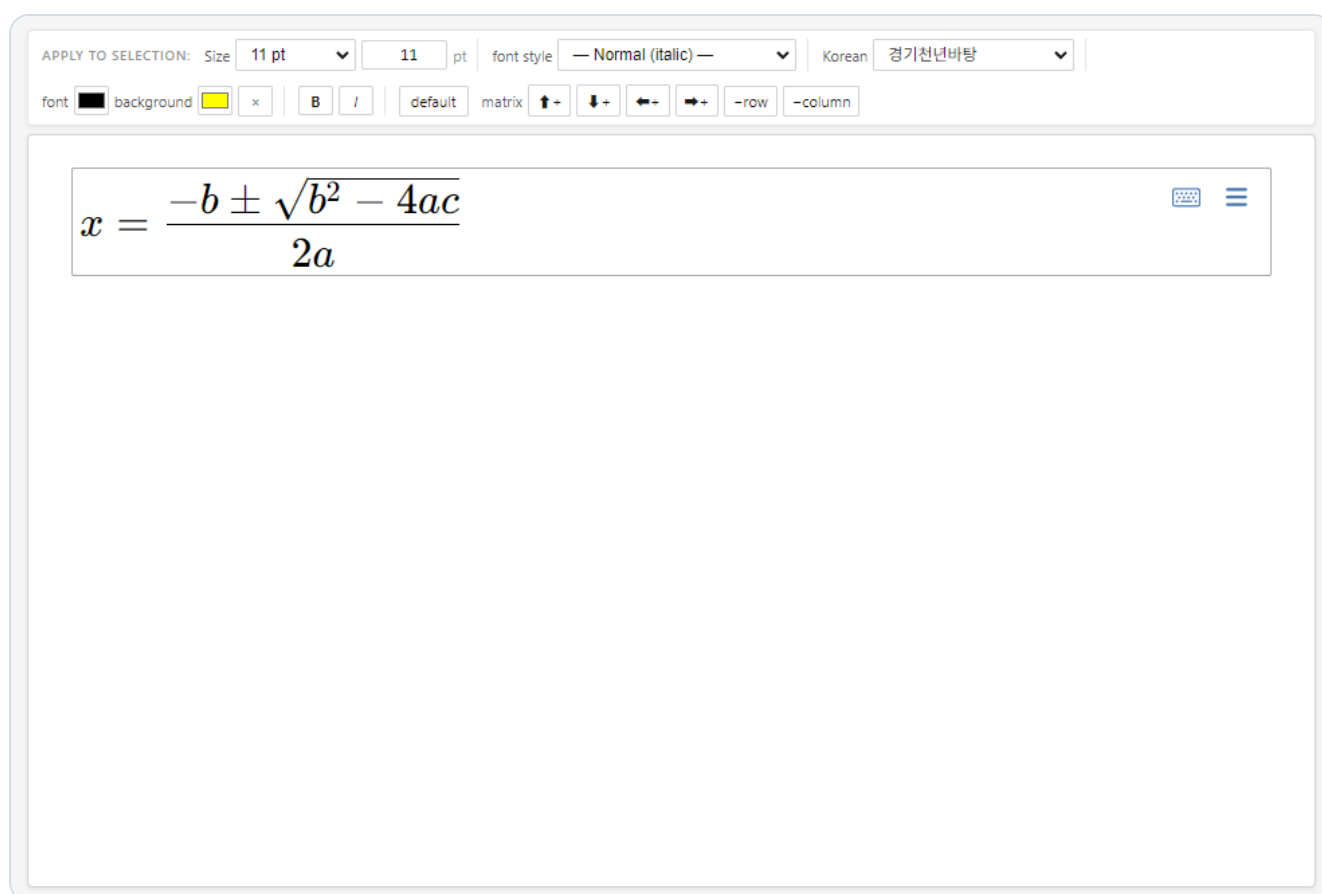
Matrix

Six buttons that work **while the cursor is inside a matrix cell**.

Button	What it does
↑+	Inserts a row above the row the cursor is in.
↓+	Inserts a row below the row the cursor is in.
←+	Inserts a column to the left of the column the cursor is in.
→+	Inserts a column to the right of the column the cursor is in.
-row	Deletes the row the cursor is in.
-col	Deletes the column the cursor is in.

The same six are also under "edit matrix" in the properties panel (5.5) and under menu "Format → edit matrix". They all do the same thing.

5.4 The canvas



The canvas — what you see here is what goes into InDesign.

5.4.1 Ways of entering an equation

The canvas is an area where you **edit what you see**. You can mix the following methods.

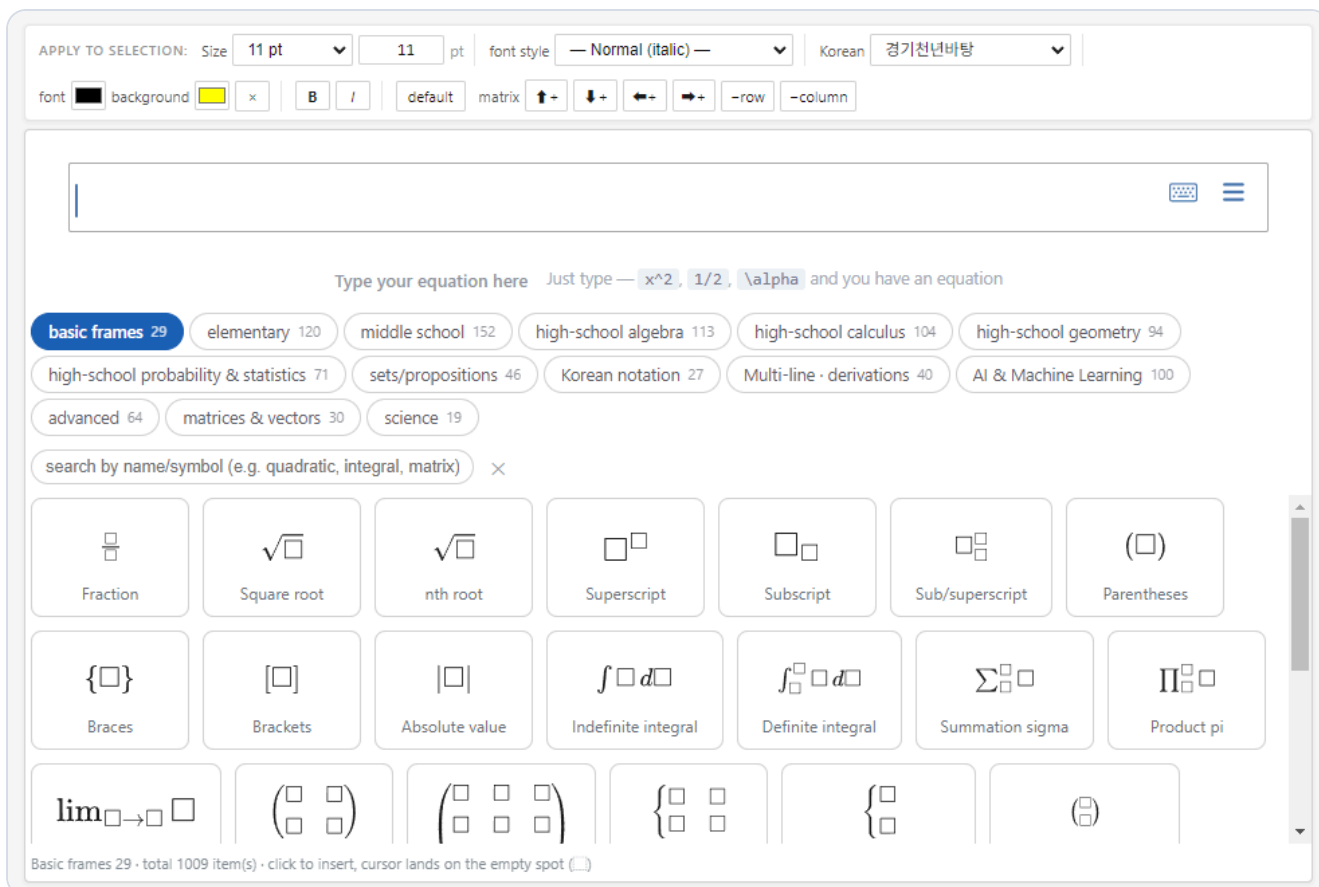
- **Typing** — type `x^2` and it turns into a superscript on the spot.
- **Ribbon palettes** — category button → choose from the gallery (5.1).
- **Symbol search** — find by typing a name with `Ctrl+/,`
- **Two-step shortcuts** — `Ctrl+G` followed by a letter inserts a Greek letter, `Ctrl+K` a symbol, `Ctrl+T` a Korean-notation structure. Pressing the first key **brings up the assignment table at the bottom of the screen, so there is nothing to memorize.** `Esc` cancels.
- **Pasting** — with `Ctrl+Shift+V,` insert an equation copied from Word and elsewhere without worrying about its format.
- **Equation gallery · sidebar** — choose from the cards below the canvas (6.12), or bring things in from clips and favorites (5.2).

Empty slots are shown as `□`. Moving between them with `Tab` and filling them in is the comfortable way.

Caution

An unfinished equation with $\square$ left in it cannot be placed in InDesign. If you try, you are told that there are empty slots; fill them all and place again.

5.4.2 The empty-canvas hint



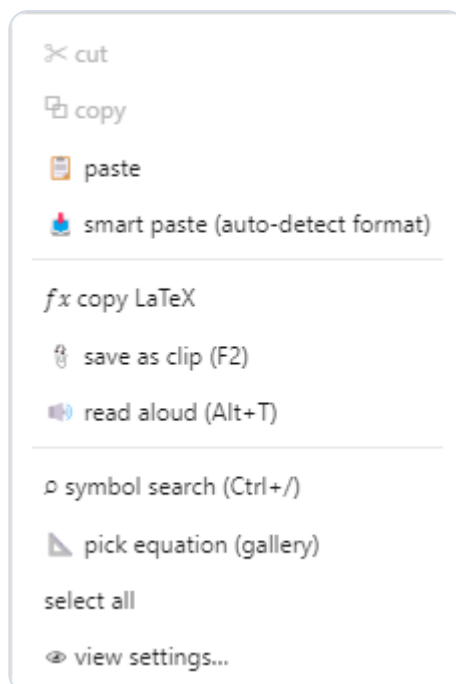
When the equation is empty a hint appears, and it goes away by itself once you type something.

When the canvas is empty, the following hint is shown.

- **Type your equation here**
- Just type — x^2 , $1/2$, α become math
- **Ctrl+V** symbol search · **Ctrl+F** fraction · **Ctrl+R** radical · **Enter** add a row (multi-line)
- Choose from the ribbon, or paste a Word or Hangul equation with **Ctrl+Shift+V**
- Right-click = quick menu · when done, **[Id InDesign]** or **Ctrl+S**

5.4.3 The right-click menu

Right-click on the canvas and eleven things you might want to do right now appear.



Canvas right-click — items that cannot be used right now are dimmed

Item	What it does	When it is dimmed
cut	Cuts the selection to the clipboard	When there is no selection
copy	Copies the selection to the clipboard	When there is no selection
paste	Inserts the clipboard contents at the cursor	—
smart paste (auto format)	Works out the clipboard format by itself and inserts	—
<i>fx</i> copy LaTeX	Copies the LaTeX source of the current equation to the clipboard	—
save as clip (F2)	Saves the selection (or everything, if none) as a named clip	—
read aloud (Alt+T)	Reads the equation aloud. Only the selection, if there is one.	—

 symbol search (Ctrl+ /)	Opens the symbol search window.	—
 pick equation (gallery)	Reopens the equation gallery if you closed it.	—
select all	Selects the whole equation.	—
 view settings...	Opens the window for showing baselines, boundaries and the hierarchy.	—

Close the menu by **clicking outside it or pressing** **Esc**. Even when opened at the edge of the window, the menu positions itself so that it is not cut off.

5.4.4 Autosave and recovery

Every time you type, **the current equation is saved temporarily about 0.8 seconds later**. When you close the window normally, a mark saying "ended cleanly" is left and the temporary copy is not used.

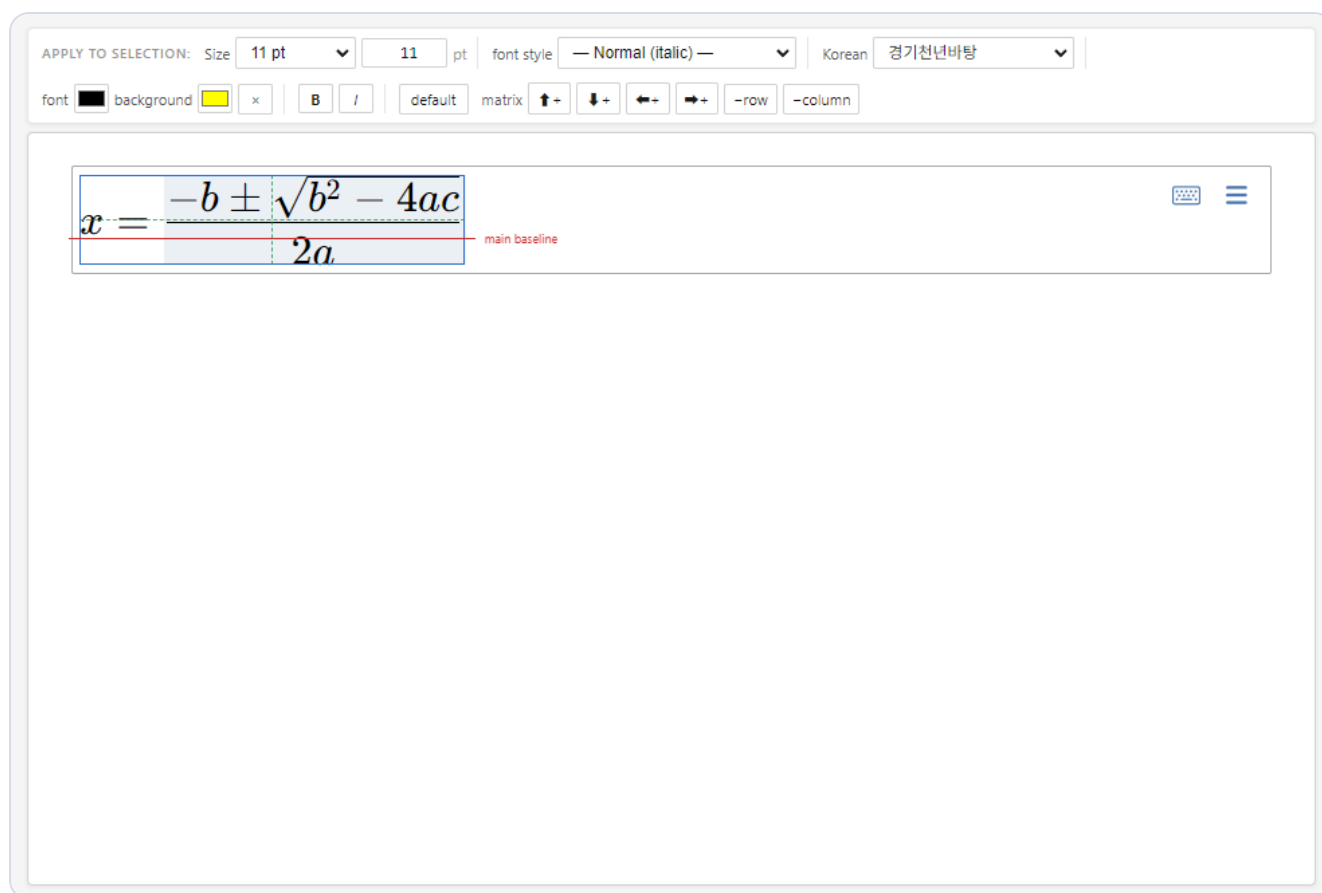
But if the program quits unexpectedly and is started again, a **recovery bar** appears at the top of the canvas.

- It shows the message " Your last editing session ended unexpectedly — recover the equation from around *hh:mm?*" together with the beginning of that equation.
- **[restore]** — brings that equation back into the canvas.
- **[discard]** — deletes the temporary copy.

Good to know

The recovery bar is not a window that blocks your work but a thin **bar**. You can leave it there and do other things, and click it when you need it.

5.4.5 Guides drawn over the canvas



With the baseline and boundaries on — they show on screen only and never appear in print or output

Switch them on under "view settings" (menu **View** → **view settings**, or the right-click menu) and guides such as baselines and boundaries are drawn over the canvas. There are nine.

Item	What it shows	Shortcut
show boundaries	The rectangle the whole equation occupies	—
show main baseline	The baseline that is matched to the line of body text	Ctrl+Alt+Y
show baseline	Sub-baselines of numerators, denominators and so on	—
show center line	The horizontal and vertical middle	—
show placeholder hierarchy	The outlines of nested boxes	Ctrl+Shift+Y

show empty placeholder boxes	Slots whose content has not been filled in	—
show control characters	Spaces and alignment points	Ctrl+Y
show precision-nudge amount	Solid line = moved position, dashed line = original position	—
view in grayscale	A preview of the result in black-and-white printing	—

[hide all] at the bottom of the view settings window switches them all off at once, and **[redraw]** (**Ctrl+D**) forces a fresh drawing when the screen looks stale.

5.5 The properties panel (right)



The properties panel — the section for the object the cursor is in is highlighted in blue.

5.5.1 How it works — "only the one object the cursor is in"

The most important principle

Adjustments in the properties panel apply **only to the one object the cursor is inside**. In an equation with three fractions, put the cursor inside the second one and click [display]: **only the second fraction** changes. With the cursor outside such an object, the panel just says "place the cursor inside the fraction to convert" and **does not touch the equation**.

You can check in three places which object the cursor is in now.

- The **"selected object"** display at the top of the panel — for example `fraction (at cursor)`
- The matching section is **highlighted in blue**.
- **"current position"** in the status bar — for example `denominator < inside the radical`

5.5.2 The head and foot of the panel

Button	What it does
 lock	Marks the panel as pinned. Click again to release it.
✕ close	Hides the properties panel. It reappears when you restart the program. To bring it back right away, switch it on under menu Window → panel layout .
restore default (at the bottom)	Returns the formatting of the selection (color, background, weight, slant, size) to its initial state. The same action as [default] in the precision control bar.

5.5.3 Delimiter height

Adjusts the height of the delimiters the cursor is in, in **five steps** — auto → small → medium → large → largest.

Button	What it does
▲ bigger	One step larger. Keep clicking and it keeps growing.
▼ smaller	One step smaller.
auto	Returns to the state in which the delimiters stretch by themselves to the height of their content.

5.5.4 $\sum$ Big-operator scripts

Sets the **position of the limits** of big operators such as $\int \sum \prod$.

Button	What it does
--------	--------------

$\updownarrow$ stacked	Puts the limits above and below the sign.
$\rightarrow$ side	Puts the limits to the right of the sign.
auto	Lets it be decided automatically: at the side when inline, above and below when displayed.

As the panel itself notes, **Korean textbooks use the stacked form even inside a line of text**. Stacking makes the equation taller, though, and affects the line spacing, so check the result when mixing it into body text.

5.5.5 Align multiple lines

Handles the alignment of equations that run over several lines. Make the lines with [Enter](#) or with [+ add row] below.

Button	What it does
align at =	Aligns the position of the first equals or inequality sign of each line vertically. Used for showing the steps of a calculation.
decimal point	Aligns the decimal points of each line. Only a period between digits counts.
comma	Aligns the commas of each line.
$\leftarrow$ left	Aligns the lines to the left.
$\leftrightarrow$ center	Centers the lines.
$\rightarrow$ right	Aligns the lines to the right.
+ add row	Adds one more line below.
clear alignment	Removes the alignment and keeps the lines.

— **rule between rows** — used to divide the steps of a calculation into blocks.

Button	What it does
--------	--------------

above	Adds a horizontal rule at the very top.
every line	Adds a horizontal rule between every pair of lines.
below	Adds a horizontal rule at the very bottom.
clear	Removes all the horizontal rules you added.
row spacing...	Opens a window for setting the spacing between lines.

Good to know

Equals and inequality signs inside a matrix or inside cases are **excluded** from alignment. Only the equals signs of the outer expression are aligned, so you can use it without worry. Clicking the same button twice does not pile up alignment marks.

5.5.6 Size info

Shows **the dimensions the equation will really have in InDesign**. It updates automatically as you type.

Item	Meaning
width	The horizontal length of the equation.
height	The vertical length of the equation.
baseline	How far it goes below the baseline (the depth). The value that decides the vertical position when it is placed inside a line.
base size	The base font size being used in the calculation right now.

The small drop-down at the right of the title switches the unit between **pt** • **mm** • **inch**. Useful for measuring in advance the width of an equation that will go inside a table.

5.5.7 Precision nudge

Moves **the selected part** by very small amounts. Use it when a script looks slightly too close, or when you want to raise a single symbol by a hair.

Control	What it does
8 direction arrows (       )	Moves in that direction by the "per step" value.
 in the middle	Returns it completely to its original position .
per step (number box)	The amount moved by one click of an arrow. 0.5 pt by default, 0.1–20 pt.
horizontal / vertical + [apply]	Set the amount of movement directly as numbers . For vertical, positive is up and negative is down.

Shortcut: **Ctrl+Alt+arrow keys** make the same moves.

Good to know

Clicking arrows repeatedly **only adds** to the movement; marks do not pile up, because the part stays selected after it has been moved. To see what has been moved, switch on **[show precision-nudge amount]** in the view settings.

5.5.8 ✓ Radical alignment

Button	What it does
baseline	Aligns the radical with the text baseline.
center	Aligns the radical with the center.

Put the cursor inside the radical, then click.

5.5.9 Fraction style

Changes the size style of the one fraction the cursor is in.

Button	What it does
a/b display	A large fraction. Suits displayed equations.
a/b inline	An ordinary fraction. Its size depends on the context.

a/b small

A small fraction. For mixing into a line of text.

5.5.10 Edit matrix · partition rules · row/column alignment

These work **while the cursor is inside a matrix cell**.

edit matrix

Button	What it does
 row up	Inserts a row above the row the cursor is in.
 row down	Inserts a row below the row the cursor is in.
 col left	Inserts a column to the left of the column the cursor is in.
 col right	Inserts a column to the right of the column the cursor is in.
– delete row	Deletes the row the cursor is in.
– delete column	Deletes the column the cursor is in.

+ **partition rules** — the dividers used for an augmented matrix  or a table-like layout. The rule is placed relative to the cell the cursor is in.

Button	What it does
left	Adds or removes a vertical rule on the left of that cell.
right	Adds or removes a vertical rule on the right of that cell.
— above	Adds or removes a horizontal rule above that row.
— below	Adds or removes a horizontal rule below that row.

Caution

Inserting a rule moves the cursor out of the matrix. **To insert or remove another, click inside the matrix again** and then click the button.

↔ row/column alignment

Button	What it does
← left / ↔ center / → right	Sets the horizontal alignment of the cell contents.
↑ top / ⇌ baseline / ↓ bottom	Sets the vertical alignment of the matrix as a whole.

Partition rules already inserted **stay in place** when you change the alignment.

5.5.11 ∫ Integral style

Button	What it does
∫ large (display)	Makes the integral sign the large size for displayed equations.
∫ inline	Makes it the small size that mixes into a line of text.

5.5.12 √ Radical index

Control	What it does
n = (number box)	Sets which root it is. 2–20 .
[apply]	Applies that index to the radical the cursor is in. Enter 2 and the index disappears , returning to an ordinary square root.

5.6 The status bar

fx view LaTeX	SVG copy SVG	Place into InDesign	export PDF	current position: equation body	equation size: 11pt (default) - script 70%	output: SVG	100%	+
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Four quick actions on the left; the current status and the zoom control on the right.

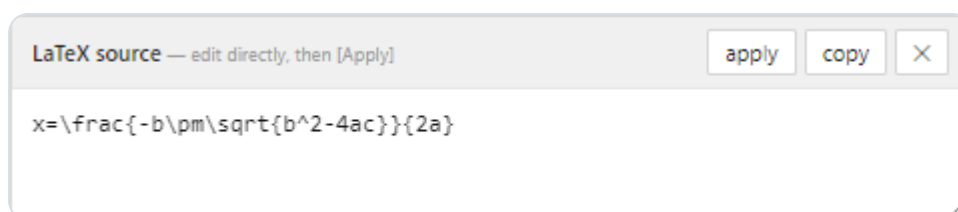
5.6.1 Left — four quick actions

Button	What it does	Shortcut
fx view LaTeX	Opens or closes the LaTeX source box.	—

SVG copy SVG	Makes an SVG (vector graphic) of the equation and puts it on the clipboard. It is drawn by the same path as the real output , so the result does not differ from a screen version.	—
Id Place into InDesign	Places the equation in the InDesign document. The main button of this editor, highlighted in blue.	Ctrl+S
 export PDF	Saves a PDF file.	—

5.6.2 The LaTeX source box

Click [view LaTeX] and the source box opens above the status bar.



The LaTeX source box — edit it yourself, then [apply]. If the syntax is wrong, it tells you without touching the canvas

Button	What it does
apply	Applies the LaTeX you edited in the box to the canvas.
copy	Copies the LaTeX source to the clipboard.
X	Closes the box.

A safety net

[apply] **checks the syntax** first. If the LaTeX is broken — unbalanced braces, for instance — it reports the error below the box **without touching the canvas**. You can try out edits with no fear of ruining the equation you were working on.

5.6.3 Right — the current status

Display	Meaning
---------	---------

current position	Shows in real time where in the equation the cursor is. It reads like <code>numerator denominator superscript inside the radical radical index matrix row 2, column 3 upper limit</code> , and nested positions are strung together from the inside out, as in <code>denominator < inside the radical</code> .
equation size	Shows the base size and script ratio now in effect (for example <code>10.5pt · script 50%</code>). If a separate size is set at the cursor, it is shown distinctly, as in <code>12pt (set)</code> .
output	Shows the export format.

5.6.4 Zoom

Button	What it does
–	Zooms out by 25%. The minimum is 100%.
The number in the middle	Shows the current zoom.
+	Zooms in by 25%. The maximum is 3200%.

Easily confused

This zoom is only **the size at which the equation is shown in the canvas**. It has nothing to do with the real output size. Zoom in to check small scripts, and set the output size under **Preferences → equation size**.

Finer control (steps of $\pm 1\%$, and shortcuts to 100 · 200 · 400 · 800 · 1600 · 3200%) is in the "zoom" part of the **view settings** window.

5.7 The menu bar

The menu bar is **always visible** at the top of the window. Functions that are not in the ribbon are all here.

5.7.1 File

Item	Shortcut	What it does
------	----------	--------------

new equation	Ctrl+N	Clears the canvas and starts afresh.
Open...	Ctrl+O	Opens a saved .mymath equation file.
close equation	Ctrl+W	Closes the equation being edited.
save	Ctrl+Alt+S	Saves a .mymath file. The current typesetting settings are stored along with the LaTeX , so it is reproduced exactly when opened later.
Save As...	Ctrl+Shift+S	Saves under a new name.
Place into InDesign	Ctrl+S	Places the current equation in the InDesign document.
Import equation files...	—	Reads equation files in other formats (the same as [ import file] in the ribbon).
convert equation files (multiple at once)...	—	Choose several files and convert them all at once to .mymath . For moving older material over.
copy as...	Ctrl+Shift+E	Choose one of several formats and copy it to the clipboard.
save as image...	—	Saves as PNG · JPEG · GIF · BMP · WMF.
print preview / print...	Ctrl+P	Shows the equation on A4, A5, B5 or Letter paper; print from there or make a PDF.
quit	Ctrl+Q	Closes the editor.

5.7.2 Edit

Item	Shortcut	What it does
undo	Ctrl+Z	Undoes the last edit.
redo	Ctrl+Shift+Z	Reapplies what was undone.
cut	Ctrl+X	Cuts the selection to the clipboard.

copy	Ctrl+C	Copies the selection to the clipboard.
paste	Ctrl+V	Inserts the clipboard contents.
select all	Ctrl+A	Selects the whole equation.
copy LaTeX	Ctrl+Shift+C	Copies the LaTeX source to the clipboard.
smart paste (auto-detect format)	Ctrl+Shift+V	Works out the clipboard format by itself and inserts.
convert typed TeX to an equation	Shift+Enter	Turns LaTeX typed as text in the canvas into real math.

5.7.3 Format

Item	Shortcut	What it does
Fraction $\frac{}{}$	Ctrl+F	Inserts a fraction frame at the cursor.
Square root $\sqrt{}$	Ctrl+R	Inserts a square-root frame.
Integral $\int$	Ctrl+I	Inserts an integral frame with upper and lower limits.
Sum $\sum$	Ctrl+Shift+S	Inserts a sum frame.
Superscript $^$	Ctrl+H	Makes a superscript slot.
Subscript $_$	Ctrl+L	Makes a subscript slot.
insert matrix...	Ctrl+M	Opens the matrix wizard.
edit matrix ▶	—	A submenu of six items: add row (above, below) · add column (left, right) · delete current row · delete current column.
font size ▶	—	A submenu with 6 · 8 · 10 · 11 (body) · 12 · 14 · 18 · 24 pt and [reset].
font color ▶	—	A submenu with red · blue · green · orange · purple · black and [reset].

bold	Ctrl+B	Makes the selection bold.
italic	Ctrl+Shift+I	Makes the selection italic.

5.7.4 View

Item	Shortcut	What it does
view settings... (baselines · boundaries · hierarchy)	—	Opens the window for the nine overlay guides, zoom, palette size and the baseline in exports.
redraw	Ctrl+D	Forces a fresh drawing when the screen looks stale.
enlarge window / shrink window / actual size	—	Changes the display scale of the whole program window (not the same as canvas zoom).
developer tools	—	A diagnostic window for looking into problems. Not used in normal work.

5.7.5 Size

Item	Shortcut	What it does
size...	Ctrl+Alt+5	Opens the window with the list of common sizes, direct entry (1.0–127.0 pt) and unit switching (pt/mm/inch/%). You can also adjust by 1 pt with Ctrl+. Ctrl+, and by 0.1 pt with Ctrl+Shift+. Ctrl+Shift+, .
lock height (match heights of equations in a table)	—	Holds the height of the equation constant. Used to match the heights of equations inside a table.
Stretchy integral...	—	Opens the settings for stretching the integral sign to match the height of the content beside it.

5.7.6 Window

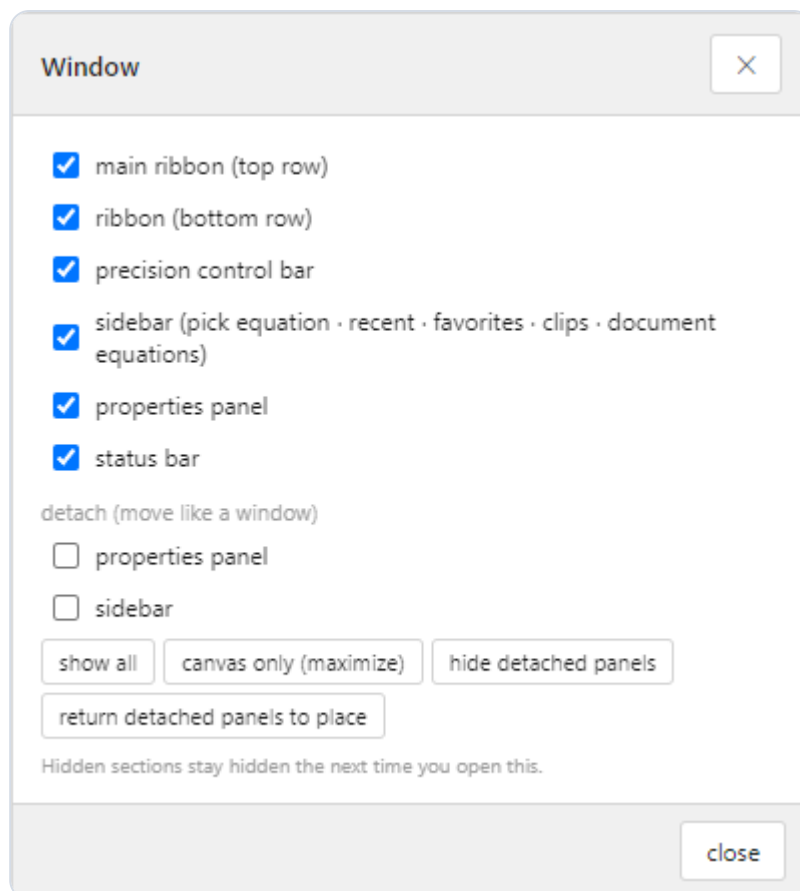
Item	Shortcut	What it does
panel layout... (show/hide sections · detach)	—	Opens the window for switching screen areas on and off or detaching them (see 5.8).
color style...	—	Opens the window where named colors are created and managed.
import/export settings...	—	Sets the file-name rule used when exporting many at once, whether the original equation is included, the default image resolution and so on.
preferences...	Ctrl+;	Covers style sets · equation size · font style by category · print color · line thickness · precision spacing · Korean font for text in equations · inline vertical position · appearance · Korean publishing options · tab order.

5.7.7 Help

Item	Shortcut	What it does
help · tip of the day	—	Shows an introduction to the program, tips, and a summary of what it can do.
shortcut cheat sheet	—	Shows the shortcuts group by group on one screen.
read aloud	Alt+T	Reads the equation aloud. With a selection, only that part is read. Press again while it is reading to stop.
About MyMath	—	Shows the version and the components.

5.8 Changing the layout

For when the screen is small, or when you want areas you do not use out of the way. Start from menu **Window** → **panel layout**.



Panel layout — showing and hiding areas at the top, detaching at the bottom.

5.8.1 Showing · hiding areas

Untick an area and it disappears from the screen. Each of the six areas can be switched on and off.

Area	What disappears when it is off
main ribbon (top row)	The clipboard · Edit · Korean textbook · equation structure · operator · calculus · structure · function groups
ribbon (bottom row)	The symbol · Format · font · import · export groups
precision control bar	The row of size · font style · color · B/I · matrix buttons
sidebar (pick equation · recent · favorites · clips · document equations)	The whole left sidebar
properties panel	The whole right panel

status bar

The quick actions, status display and zoom at the bottom

At the bottom of the window there are also buttons that do it all at once.

Button	What it does
show all	Switches every hidden area back on.
canvas only (maximize)	Switches off the sidebar · the properties panel · the ribbon's bottom row in one go to make the editing area as large as possible.
hide detached panels	Hides the detached windows from the screen.
return detached panels to place	Returns the detached windows to their original places.

Good to know

Hidden areas stay hidden when you quit and restart the program. If something has vanished from the screen and you cannot tell why, check this window first.

5.8.2 Detaching palettes

The **properties panel** and the **sidebar** can be detached like windows and moved freely. Handy on a wide monitor, with the canvas large in the middle and the panels pulled off to the side.

- 1 Under "detach" in the panel layout window, tick **[detach properties panel]** or **[detach sidebar]**.
- 2 A **title bar** appears on top of the area. Drag this bar to move it where you like.
- 3 To put it back, click the **[←]** button at the right of the title bar, or untick it in the panel layout window.

The position and size of a detached panel are remembered, so it is in the same place the next time you open the editor.

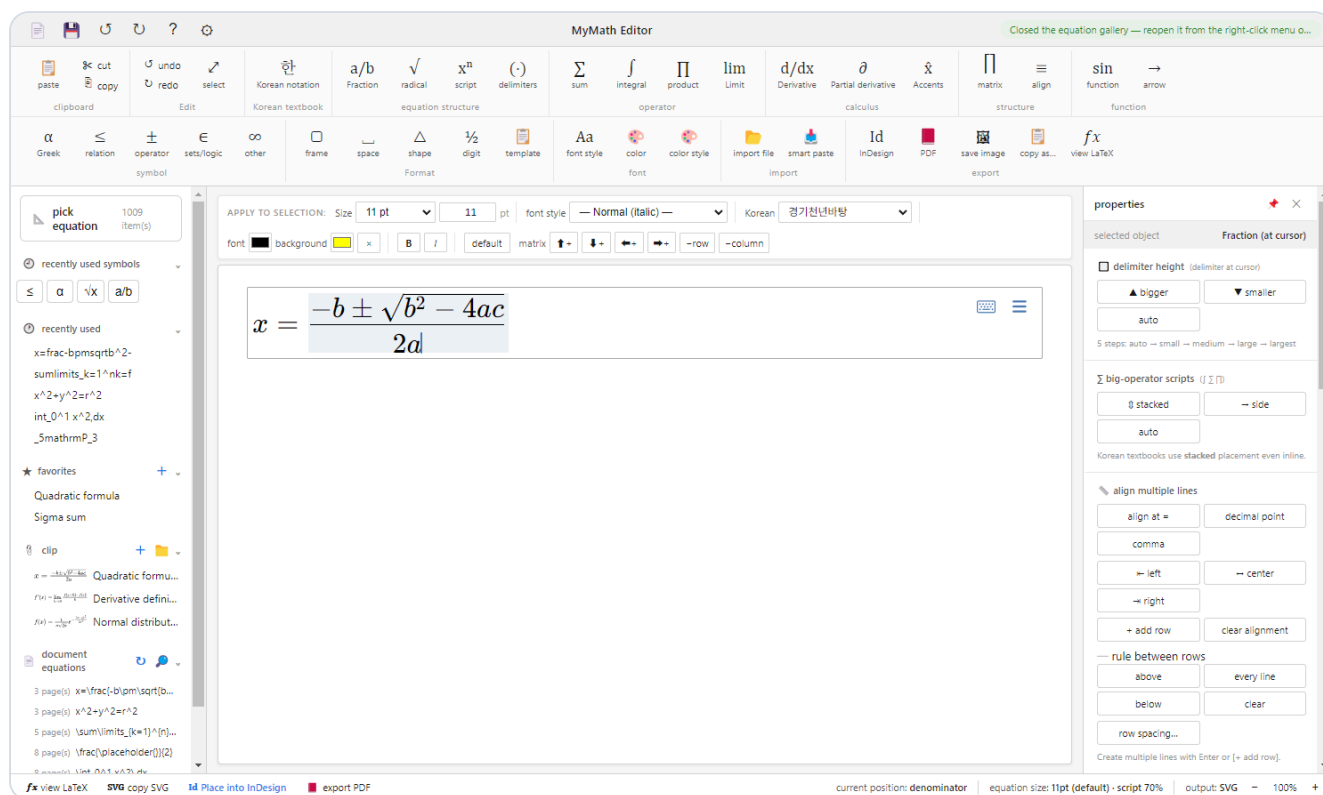
5.8.3 Changing the palette size

Enlarges or reduces **the text and buttons** of the ribbon, sidebar and properties panel **all together**. Use it when the buttons look too small on a high-resolution monitor.

- 1 Open menu **View** → **view settings**.
- 2 On the "palette size" row, click one of **80% · 90% · 100% · 115% · 130% · 150%**.
- 3 The value now in effect is shown in bold.

Do not confuse it with canvas zoom

Palette size is the size of the buttons and text. **Zoom (the - / + in the status bar)** is the size at which the equation is shown in the canvas. And **[enlarge window] in the View menu** is the whole program window. All three are **unrelated to the real output size**.



The screen while an equation is being edited. The properties section for the object the cursor is in is highlighted, and the current position appears in the status bar.

6. Writing equations — a hands-on tour

This is not a chapter to read but a chapter to **follow along with**. Keep the editor open and work through it from the top; by the time you reach the last section you will be able to build nearly every equation that turns up on a textbook page.

Getting ready

Start the editor and click once on the canvas (the white area in the middle). If the cursor is not in the canvas, nothing happens when you press keys. If things get tangled along the way, undo with `Ctrl+Z` ; to start afresh, press `Ctrl+N` .

6.1 Just type

An equation editor does not mean picking everything from a palette. Common structures such as fractions and scripts take shape on the spot **when you type them like ordinary text**. The table below was checked by actually sending the keys to the canvas.

What takes shape as you type

You type	You get	Explanation
<code>1/2</code>	The fraction one half	The moment you type <code>/</code> , what came before moves up as the numerator and the denominator slot opens
<code>(x+1)/2</code>	A fraction with numerator <code>(x+1)</code>	The whole parenthesized group just before it is taken as the numerator
<code>a/b/c</code>	A fraction inside the denominator	Typing them in a row gives nested fractions
<code>x^2</code>	x squared	What you type after <code>^</code> goes into the superscript slot
<code>x_1</code>	x sub 1	<code>_</code> is the subscript slot
<code>R^n</code>	R to the n	Letter scripts work the same way

You type	You get	Explanation
<code>\pi</code> + Space	π	Start with a backslash and you can type a LaTeX command directly
<code>\le</code> + Space	$\leq$	For symbols whose name you know, this is the fastest way
<code>\sqrt</code> + Enter	An empty radical	When the slot opens, just type the content
<code>\frac</code> + Enter	An empty fraction frame	Numerator and denominator both open as empty slots ($\square$)

What is *not* converted automatically

`alpha`, `sin`, `<=`, `>=`, `!=` and `->` **stay exactly as typed**. They do not turn into α , $\sin$, $\leq$, $\geq$, $\neq$ or $\rightarrow$ by themselves. Letter-by-letter auto-conversion is switched off so that variables whose names overlap (an expression with the variables `a`, `l`, `p` side by side, for example) are not turned into symbols against your will.

Do this instead — `\alpha` + Space / `Ctrl+G` then `A` / search with `Ctrl+/.`

Getting out of a fraction

When you make a fraction with `/`, the cursor stays in the denominator slot. Keep typing and everything goes into the denominator. Type `1/2+1/3` straight through and the whole `2+1/3` ends up as the denominator.

- 1 Type `1/2`. The cursor is after the `2` in the denominator.
- 2 Press `→` (right arrow) once to come **out** of the fraction.
- 3 Now type `+` and carry on with the next term.

The empty slot $\square$

Frames inserted from a palette or with a shortcut have empty slots shown as $\square$. Press `Tab` to jump to the next empty slot. If you try to place an equation in InDesign with even one slot left empty, the editor stops and tells you — so that an empty square never reaches the printed page.

Shortcuts that call up a structure

Keys	Inserts
Ctrl+F	Fraction
Ctrl+R / Ctrl+Shift+R	Square root / radical with an index
Ctrl+H / Ctrl+L / Ctrl+J	Superscript / subscript / both
Ctrl+I / Ctrl+Shift+S	Integral / sum
Ctrl+9 / Ctrl+0 / Ctrl+Shift+9	() / [] / {}
Ctrl+' / Ctrl+Shift+'	Prime / double prime
Ctrl+M	Matrix wizard

Greek letters and symbols have their own **two-step shortcuts**. Press **Ctrl+G** and an assignment table appears at the bottom of the screen; press a letter next and that symbol goes in. There is nothing to memorize — read the table and choose.

First key	Then	Inserts
Ctrl+G	A letter (Shift = capital)	26 Greek letters — A → α , Q → θ , W → ω , Shift+G → Γ
Ctrl+K	A key	28 symbols — S → $\sim$ (similar), K → $//$ (parallel), N → ∞ , 3 → $\therefore$
Ctrl+T	A key	13 Korean textbook notations — P → ${}_nP_r$, D → repeating decimal, V → vector, S → Σ stacked

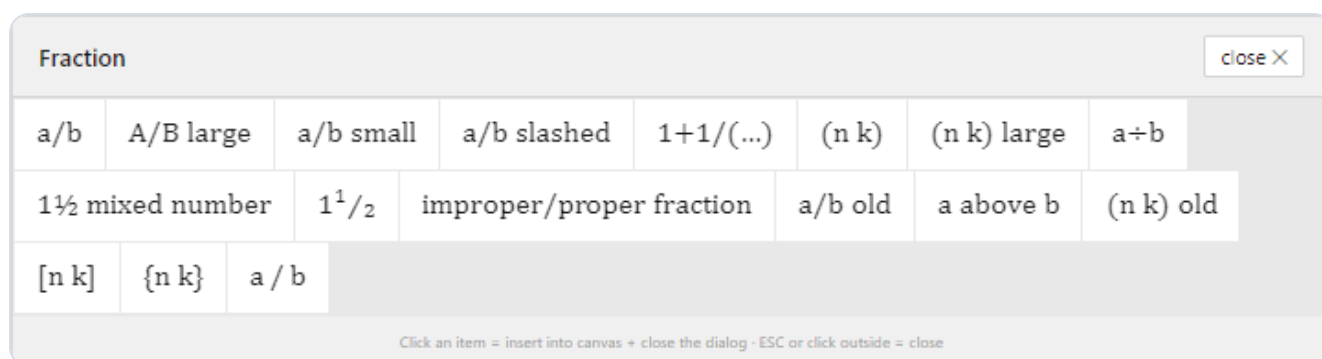
Any keyboard layout

Two-step shortcuts go by **the physical position of the key, not the character printed on it**. With a Korean input method active, **Ctrl+G** $\square$ still inserts α . You do not need to switch input mode.

6.2 Fractions

Making one — four ways

- 1 **Type it** — just type $\frac{3}{4}$. The fastest way.
- 2 **Shortcut** — **Ctrl+F**. Numerator and denominator open as empty slots.
- 3 **Ribbon** — the **Fraction** button in "equation structure" on the top row. 17 fraction forms on one screen.
- 4 **Search** — **Ctrl+/,** then **fraction** or **frac**.



The "Fraction" family — 11 basic items, 17 with "more"

Moving between slots

Tab takes you from the numerator to the denominator, **Shift+Tab** brings you back, and **→** takes you out of the fraction.

You can change the order the cursor travels in

Under **Ctrl+;** (Preferences) → **tab order**, choose between *Western — numerator first* and *Eastern — denominator first*. With Eastern, **Tab** visits the denominator first inside a fraction. The option follows Korean and Japanese typesetting practice.

Nested fractions

- 1 Type $\frac{1}{2}$.
- 2 With the cursor still in the denominator slot, press **Ctrl+F** — another fraction appears inside the denominator.

- 3 For many levels, as in a continued fraction, use the `\cfrac` item ($1+1/(...)$) of the "Fraction" family: the size does not shrink level by level, so it stays readable.

Display · inline · small fractions

The same `a/b` needs a different size inside a line of text and set large on a line of its own. **Put the cursor inside the fraction you want to change** and choose under  **fraction style** in the properties panel on the right.

Button	LaTeX	Where it is used
display	<code>\dfrac</code>	Displayed equations. Numerator and denominator stay at text size
inline	<code>\frac</code>	The default. It adapts to where it sits
small	<code>\tfrac</code>	Inside a line. Pushes the line height up less

It goes by the cursor position

These buttons change **only the one fraction the cursor is in**. With the cursor outside any fraction, it just says "place the cursor inside the fraction to convert" and leaves the equation alone. The idea is not to change every fraction at once, so the other fractions stay as they are.

Fraction bar thickness

In print, a heavy fraction bar looks untidy. Under `Ctrl+;` (Preferences) → **line thickness (print quality)**, enter a pt value for **fraction bar**. `0` means automatic. At 11 pt body text the automatic value is about 0.66 pt, which is on the heavy side for print.

- 1 `Ctrl+;` → find "line thickness (print quality)".
- 2 Enter a value such as `0.35` for **fraction bar**.
- 3 The preview just below is redrawn through the real output path — check it by eye and save.

Internally the value is converted to em, so **the proportion is kept** whether the body text is 9 pt or 14 pt. Save combinations you use often as a **style set** (`Ctrl+E`) and you can load them in one step for the next job.

$$\frac{a + b}{c - d}$$

Display, inline and small fractions, and a nested fraction

6.3 Radicals

The "Radical" family has four items.

Item	LaTeX	Description
$\sqrt{x}$	<code>\sqrt{ }</code>	Square root
$\sqrt[n]{x}$	<code>\sqrt[n]{ }</code>	General radical; you enter the index
$\sqrt[3]{x}$	<code>\sqrt[3]{ }</code>	Cube root — the index 3 is already in
$\sqrt[4]{x}$	<code>\sqrt[4]{ }</code>	Fourth root

Making a square root

- 1 Press `Ctrl+R`. An empty radical appears with the cursor inside.
- 2 Type `b^2-4ac`.
- 3 Come out of the radical with `→`.

Adding an index

To turn a `√x` you have already made into a cube root, put the cursor inside that radical and, under **√ radical index** in the properties panel, enter `3` for `n =` and click **apply**. Set it back to `n = 2` and the index disappears, returning to an ordinary square root.

Alignment of a radical

There are two choices for where the radical sits on the line: **baseline / center** under **√ radical alignment** in the properties panel. Baseline aligns with the text baseline; center aligns with the middle of the radical as a whole. In a book where radicals often appear inside lines of text, baseline keeps the lines steadier.

Radical line thickness

It is in the same place as for fractions — Preferences → **line thickness (print quality)** → **radical rule**. The top line and the tail of the radical change together.

$$\sqrt[3]{x^2 + 1}$$



Square root, cube root and nested radicals

6.4 Scripts

The four basics

Type / keys	Result	Explanation
[^] · Ctrl+H	Superscript	x^2
__ · Ctrl+L	Subscript	x_1
Ctrl+J	Both at once	x_i^n — both slots open together
"Script" family $\mathfrak{a}^b$	Prescript	A script attached <i>before</i> the letter

Prescripts — essential for permutations and combinations

A script that comes before the letter, as in ${}_5P_3$, cannot be made by plain typing. The shortest route is **Ctrl+T** then **P**.

- 1 Press **Ctrl+T** — the assignment table appears.
- 2 Press **P** — the frame $\{\}_{{}_{{}}}\mathrm{P}_{{}_{{}}}$ goes in.
- 3 **5** in the front slot, **Tab**, **3** in the back slot.

P, C and H are upright

This frame wraps the P in $\mathrm{}$ so that it is drawn **upright**. Type a plain **P** and it becomes an italic *P*, unlike the textbook page. The items ${}_nP_r \cdot {}_nC_r \cdot {}_nH_r \cdot {}_n\Pi_r$ in the "Korean notation" family are all treated the same way.

Nested scripts

To put a script inside a script, as in x^{2^n} , type $\wedge$ again inside the script slot. Think of it as pressing $\rightarrow$ once for every slot you leave and you will not get lost.

The "Script" family also has these special forms.

Item	LaTeX	Where it is used
$x^{(n)}$	$\wedge\{(n)\}$	The nth derivative
$f _a^b$	$\backslash\text{Big }_{\{a\}}^{\{b\}}$	The evaluation bar in a definite integral
substack	$\backslash\text{substack}\{ \ \backslash \ \}$	Two lines of conditions under a sum sign
overset / underset	$\backslash\text{overset}\{ \ \}\{=\}$	Putting text above or below an equals sign
$x' \cdot x''$	$' \cdot ''$	Prime ($\text{Ctrl}+''$)

Script size

What percentage of the body size scripts shrink to differs from publisher to publisher and book to book. You can set the values yourself.

- 1 $\text{Ctrl}+;$ $\rightarrow$ open the **equation size** group.
- 2 Enter the **base size** (0 follows the InDesign body text size), **script %** and **scriptscript %**.
- 3 Check the preview and save. The status bar shows the current values, as in $10.5\text{pt} \cdot \text{script } 50\%$.

A scriptscript cannot be smaller than the square of the script ratio

By construction, the scriptscript ratio cannot go below the square of the script ratio. If you enter a smaller value, the screen tells you **the value actually applied**.

If you worry about scripts clogging up in print, try switching on *make scripts a bit bolder* under **KR Korean publishing options** in Preferences. Only the scripts get slightly heavier, so they stay legible at small sizes.

$$a_{n+1} = a_n^2 + 2$$



Superscripts, subscripts, prescripts and nested scripts

6.5 Big operators — integral · sum · product · limit

Each of the four has its own family. The common forms are ready **with their limits already in place**, so all you do is choose.

Family	Items	Typical items
Integral $\int$	24	Indefinite · definite a to b · 0 to ∞ · $\iint$ · $\iiint$ · $\iiiii$ · $\oint$ · $\oiint$ · $\oiint$ · $dx \cdot dV \cdot dA \cdot ds$
Sum $\sum$	8	i=1 to n · 0 to ∞ · double sum · multiple conditions with <code>\substack</code>
Product $\prod$	11	$\prod$ · $\coprod$ · $\bigcup$ · $\bigcap$ · $\oplus$ · $\otimes$ · $\odot$
Limit $\lim$	11	$x \rightarrow a$ · $x \rightarrow 0$ · $x \rightarrow \infty$ · one-sided limits · limsup · liminf · sup · inf

Making a definite integral

- 1 Ribbon top row, "operator" → click **Integral**.
- 2 Choose $\int_a^b f \, dx$ — the lower and upper limits and the `dx` go in with it.
- 3 Click the limit slots and change them to `0` and `1`, then write the integrand in the middle.

Putting limits above and below the sign

Korean textbooks put the limits of $\sum$ and $\lim$ above and below the sign even inside a line of text. The default typesetting rule puts them at the side when inline, so left alone the page gives a different impression.

Put the cursor inside the operator and choose under **$\sum$ big-operator scripts** in the properties panel.

Button	LaTeX	Result
⇕ stacked	<code>\limits</code>	Limits above and below the sign
→ side	<code>\nolimits</code>	Limits to the right of the sign
auto	—	At the side when inline, above and below when displayed

To insert them stacked from the start, use **Σ stacked** · **under lim** in the "Korean notation" family, or press `Ctrl+T` then `S` / `M`.

It affects the line height

Stacked limits greatly increase the height of the equation and its depth below the baseline. When placing one inside a line of text, check on the InDesign side that the line spacing does not open up.

Size of the integral sign

Choose **large (display)** / **inline** under **∫ integral style** in the properties panel.

Stretchy integral — growing to match the content beside it

In front of a tall expression containing fractions or radicals, the integral sign looks small by comparison. **Menu "Size" → Stretchy integral...** can match it automatically.

- 1 Open menu **Size** → **Stretchy integral...**
- 2 Switch on *stretch the integral sign to match the height beside it*.
- 3 **start stretching at** (default 120%) — the sign stretches when the equation is taller than the integral sign by more than this ratio.
- 4 **maximum** (default 300%) — however tall the content, this scale is never exceeded.
- 5 Check the preview and save.

The sign is held at the bottom and stretched upward, so **the baseline does not shift**. The stretch is part of the output shapes themselves, so it carries over exactly to the vector PDF placed in InDesign.

stretchy integral sign

☐ stretch the integral sign to match the height beside it

start stretching at % maximum %

Stretches the integral sign once its neighboring content exceeds the "start stretching" ratio.

preview
$$\int_0^1 \frac{x^2 + 1}{\sqrt{x^3 + 2}} dx$$

save

Stretchy integral settings — the ratio at which stretching starts and the maximum scale

$$\int_0^1 x^2 dx = \frac{1}{3}$$



Definite, double and contour integrals

$$\lim_{x \rightarrow 0} \frac{\sin x}{x} = 1$$



A limit — with the condition below

6.6 Delimiters

Delimiters that fit the content height automatically

The 8 basic items of the "Delimiters" family are all of the `\left ... \right` kind. Whether a fraction or a matrix goes inside, **the delimiters match the height by themselves**.

Item	LaTeX	Name
(·)	<code>\left(\right)</code>	Parentheses
[·]	<code>\left[\right]</code>	Square brackets
{·}	<code>\left\{ \right\}</code>	Braces

Item	LaTeX	Name
$ \cdot $	<code>\left \right </code>	Absolute value
$\ \cdot \ $	<code>\left\ \right\ </code>	Norm
$\langle \cdot \rangle$	<code>\langle \rangle</code>	Angle brackets
$\lfloor \cdot \rfloor$	<code>\lfloor \rfloor</code>	Floor
$\lceil \cdot \rceil$	<code>\lceil \rceil</code>	Ceiling

Setting the size by hand — 5 steps

Sometimes the automatic size looks too large or too small for the page. Put the cursor inside the delimiters and move through the steps with **▲ bigger** / **▼ smaller** under ☐ **delimiter height** in the properties panel.

auto (`\left\right|`) ↔ `\big|` ↔ `\Big|` ↔ `\bigg|` ↔ `\Bigg|`

Click **auto** at any time to return to `\left ... \right`.

Changing steps several times in a row

Manual delimiters such as `\big(` are not one matched unit but **two separate symbols**. That is why the range stays selected right after a change — click **▲** again and it grows further. If you have clicked elsewhere, select the delimiters again and then click.

Unmatched delimiters

Delimiters with only one side, or with different left and right sides, can be made too — the interval notation `(a, b]` or the evaluation bar `f(x)\big|_a^b`, for instance. They are under **more** in the "Delimiters" family.

Item	LaTeX	Where it is used
$(\cdot]$	<code>\left(\right]</code>	Half-open interval
$[\cdot)$	<code>\left[\right)</code>	Half-open interval
$\cdot $	<code>\left. \right </code>	One-sided delimiter with the left side empty — the evaluation bar

Item	LaTeX	Where it is used
$(\cdot)$	<code>\left(\left(\right.\right)</code> <code>\right)\right)</code>	Double parentheses

`\left.` means "there is a delimiter here, but do not draw it". It only holds the place so that the pair is matched, and it is what lets the vertical bar on the right grow to the height of the content.

6.7 Matrices

The matrix wizard

Unlike the other families, the ribbon's **Matrix** button opens not a list of items but a **wizard**. `Ctrl+M` does the same.

The matrix wizard — 14 presets and custom

The wizard has two parts.

- 1 Presets** — 14 common forms lined up as buttons. Click one and it goes straight in and the wizard closes.

- 2 or custom** — enter the number of rows and columns yourself, from **1 to 30**, that is, up to 30×30 .

The 14 presets

Button	Contents
(2×2) (3×3) (4×4) (5×5)	Four square matrices in parentheses
$[2 \times 2]$ $[3 \times 3]$	Matrices in square brackets
$ A $	Determinant (vertical bars)
$\ A\ $	Double vertical bars
$\{ \cdot$	Cases — a function defined piecewise
$\equiv$	Aligned equations — several lines aligned at the equals sign
$(a \ b \ c) / (a/b/c)$	Row vector 1×3 / column vector 3×1
$[A b]$	Augmented matrix — the form with a vertical divider
small	A small matrix for use inside a line of text

Custom

- Ribbon "structure" → **Matrix** (or **Ctrl+M**).
- Enter the number of rows and columns under **Size** (for example **4** × **5**).
- Choose the **delimiters** — $() \cdot [] \cdot \{ \} \cdot || \cdot \| \| \cdot$ none · array, **7 kinds**.
- align** is center / left / right. It applies *only when you chose array*.
- The preview below shows the current settings, as in **4x5 / [] square brackets**.
- Insert** (**Enter**) — every cell opens as an empty slot ($\square$). **Esc** cancels.

Filling the cells

Move from cell to cell with **Tab**. At the end of a row, **Tab** goes to the first cell of the next row. You can also click a cell directly with the mouse.

Adding and deleting rows and columns

With the cursor inside a matrix cell, use the "matrix" group of the control bar above the canvas or the six buttons under **edit matrix** in the properties panel.

Button	What it does
↑ row up / ↓ row down	Inserts a row above or below the row the cursor is in
← col left / → col right	Inserts a column to the left or right of the column the cursor is in
- delete row / - delete column	Deletes the row or column the cursor is in

Partition rules — making an augmented matrix

A form with a **vertical divider**, like the coefficient matrix of a system of equations, can be made in one step with the four buttons under **partition rules** in the properties panel.

- 1 Make a matrix with 3 columns and fill in the values.
- 2 Click where you want the divider — any cell in column 2 — to put the cursor there.
- 3 Click **| right**. A vertical line appears between columns 2 and 3.

Use **| left** · **— above** · **— below** in the same way. They work just as well for building a table-like layout.

Click again after inserting a rule

Inserting a rule moves the cursor out of the matrix in the process. To insert or remove another, **click a cell inside the matrix again** to put the cursor back. The status bar at the bottom of the screen says the same.

Row and column alignment

Under $\leftrightarrow$ **row/column alignment** in the properties panel, the horizontal choices are $\leftarrow$ **left** · $\leftrightarrow$ **center** · $\rightarrow$ **right**, and the vertical ones $\uparrow$ **top** · $\leftrightarrow$ **baseline** · $\downarrow$ **bottom**. In a table of numbers, right alignment lines the digits up and reads well.

Adding alignment or partition rules automatically turns a frame such as `pmatrix` into `array`, because it has to be a frame that accepts column formatting. The visible delimiters stay the same, and **partition rules already inserted are not lost when you change the alignment**.

$$A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$$



Matrix · determinant · augmented matrix · cases

6.8 Multi-line equations

When a derivation runs over several lines, it reads well only if the equals signs line up vertically. You do not align them with spaces by hand; you **choose what to align on**.

Making the lines

- 1 Write the first line — `x^2-5x+6=0`.
- 2 Click + **add row** under **align multiple lines** in the properties panel.
- 3 Write the next step on the new line — `(x-2)(x-3)=0`.
- 4 Repeat + **add row** as often as you need.

Three things to align on

Button	What is aligned
align at =	The position of the first relation sign in each line. Not only <code>=</code> but <code><</code> <code>></code> <code>≤</code> <code>≥</code> <code>≠</code> <code>≈</code> <code>≡</code> <code>∼</code> <code>→</code> <code>⇒</code> <code>∈</code> <code>⊂</code> and others — 26 kinds are recognized
decimal point	The position of the decimal point in each line. Only a period between digits counts — sentence periods and <code>...</code> are left alone

Button	What is aligned
comma	The position of the comma in each line

To align whole lines without a reference point, use $\leftarrow$ **left** · $\leftrightarrow$ **center** · $\rightarrow$ **right**. **clear alignment** removes the alignment and keeps the lines.

Signs on the inside are left alone

Cell separators inside a matrix and inequality signs inside **cases** are **not taken as alignment points**. Only the equals signs of the outer lines are aligned. Clicking the same button twice does not pile up alignment marks. If there is nothing to align, the equation is left untouched and you are simply told so.

Rules between rows

Column arithmetic and table-like layouts need horizontal rules. They are the four buttons **above** · **every line** · **below** · **clear** in the properties panel.

The frame changes automatically

Horizontal rules are not drawn in the alignment frame (**aligned**). So when you add a rule, the frame is **automatically changed to array** and you are told so. The visible alignment is kept.

Row spacing

When the lines feel cramped or too far apart, set a value with the **row spacing...** button. The unit is em (a proportion of the font size), so the proportion holds when the body size changes. Clear the value to return to the default spacing.

$$2x + 3y = 12$$

$$x - y = 1$$



A three-line derivation aligned at the equals sign

6.9 Hangul inside equations

(단, $x > 0$), $(\text{자연수}) \div (\text{자연수})$, $\{x \mid x \text{는 } 10 \text{ 이하의 자연수}\}$ — this is notation the Korean curriculum notice itself uses. It is the formal style, not an exception, so it has to be easy to write.

Inserting Hangul

- 1 Choose the **Korean** item (`\text{ }`) in the "Accents" family, or type `\text` + `Enter`.
- 2 Type the Korean text straight into the slot that opens.
- 3 Come out with `→`.

The common forms are in the "Korean notation" family, complete.

Item	LaTeX	Where it is used
(단, ...)	<code>\quad \text{(단,)}</code>	A proviso ("provided that..."). <code>Ctrl+T</code> <code>T</code>
Korean fraction	<code>\dfrac{\text{ }}{\text{ }}</code>	The (natural number)÷(natural number) form. <code>Ctrl+T</code> <code>F</code>
$\{x \mid \dots\}$	<code>\{ \mid \text{ } \}</code>	Set-builder notation
각 $\sqcap \sqcup \sqsubset$	<code>\text{각}</code>	Elementary school — vertices named with Korean consonants

Choosing the Korean font

The page looks natural only when Hangul inside equations has the same shape as the body font.

- 1 `Ctrl+;` → go to the **Korean font for text in equations** group.
- 2 Type part of a name in the **find font** box — `Myungjo`, `Nanum`, `Batang`.
- 3 Choose from the list below. It shows every Korean font installed on the computer.
- 4 Check the shape in the preview.

The font need not be on the InDesign side

MyMath **takes the glyph outlines directly** from the chosen font and draws them just like the other math symbols. The font file is not embedded in the document, so the file does not grow heavy, and Hangul does not break when a document containing the equation is opened on another computer.

Check the width of Korean fractions

`\dfrac{\text{long Korean text}}{\text{long Korean text}}` grows wide and can exceed the width of the InDesign text frame. Consider shortening the words, or using the `\div` notation instead of a fraction.

$$x^2 - 5x + 6 = 0 \quad (\text{단, } x \text{는 자연수})$$



Hangul inside equations — proviso, set-builder notation, Korean fraction

6.10 Typefaces and color

11 typefaces

This is the **font style** list in the control bar above the canvas. **First select the part you want to change by dragging**, then choose.

Name	LaTeX	Where it is used
Normal (italic)	—	The default. Italic is standard for variables
<i>x</i> italic	<code>\mathit</code>	When you want the slant set explicitly
<i>x</i> bold	Bold italic	Emphasis
<i>x</i> roman (upright)	<code>\mathrm</code>	Units, function names, the P of a permutation
<i>x</i> bold roman	<code>\mathbf</code>	Names of vectors and matrices
<i>x</i> sans-serif	<code>\mathsf</code>	Names of figures and the like

Name	LaTeX	Where it is used
x monospace	<code>\mathtt</code>	Code
⋈ blackboard bold	<code>\mathbb</code>	$\mathbb{R}$ $\mathbb{N}$ $\mathbb{Z}$ $\mathbb{Q}$ $\mathbb{C}$
<i>x</i> calligraphic	<code>\mathcal</code>	Families of sets, transforms
⌘ fraktur	<code>\mathfrak</code>	Algebraic structures
<i>ℳ</i> script	<code>\mathscr</code>	Script lettering

Bold · italic

The **B** / **I** buttons of the control bar, or `Ctrl+B` / `Ctrl+Shift+I`. If the style is already on, click once more to remove it. When you move the cursor, the buttons and the font style list **update by themselves** to match that spot, so you can see what formatting the cursor is currently inside.

Font size

Set the size of the selected part with the **Size** list (6–72 pt) in the control bar or the input box beside it. You can also fine-tune it from the keyboard.

Keys	What they do
<code>Ctrl+.</code> / <code>Ctrl+,</code>	Up / down by 1 pt
<code>Ctrl+Shift+.</code> / <code>Ctrl+Shift+,</code>	By 0.1 pt

Under menu **Size** → **Size...** you can enter 1.0–127.0 pt directly and also view the value in **pt** · **mm** · **inch** · **%**. With no size specified, the equation simply follows the InDesign body text size.



The Size menu — common sizes and direct entry

Adding color

- 1 Select the part to color by dragging.
- 2 Click the color box beside **font** in the control bar and choose a color.
- 3 The background color is the **background** box; to remove it, the × button next to it.

Six common colors are ready under menu **Format** → **font color**: red, blue, green, orange, purple and black.

Named colors — color styles

If colors carry a **meaning** in your book — "answers in blue, warnings in red" — use color styles:  **color style** under "font" in the ribbon's bottom row.

- 1 Register a color under a name (for example answer).
- 2 The equation stores **only the name**, not the color value.
- 3 Change the color value of that name later and **every equation that uses the style changes with it**.

The color for print is set separately

A color chosen on screen is a screen color. How it separates on the printing plates is set under **Ctrl+;** → **print color (separation)** — K100 (the black plate alone) · direct CMYK · spot color · RGB. **For black equations in body text, K100 is the default and the recommendation.** Choose RGB and the black separates onto all four plates, which can look smeared in print.

6.11 Symbol search **Ctrl+ /**

No need to wonder "which family was the cube root in?" Press **Ctrl+ /** and type the name.

root		
$\sqrt{x}$	square root \sqrt	radical
$\sqrt[n]{x}$	nth root \sqrt[n]	radical
$\sqrt[3]{x}$	cube root	radical
$\sqrt[4]{x}$	fourth root	radical

Symbol search — by name, in your language or in Korean, or by LaTeX

1

Press **Ctrl+ /**.

- 2 Type what you are looking for — the name in the language of the screen, the Korean name or a LaTeX command all work.
- 3 Choose with ↑ ↓. Each line shows **the symbol · its name · which family it is in**.
- 4 Enter inserts it at the cursor. Esc closes.

It finds things under other names too

The name written in the palette and the name people actually use are not the same. The family is called "Radical", but plenty of people look for root. So each family carries a set of **synonyms** as well.

Family	These also find it
Radical	sqrt · root · radical · 근호 · 제곱근
Fraction	frac · fraction · 분자 · 분모
Script	sup · sub · superscript · subscript · 지수 · 제곱
Delimiters	bracket · paren · fence · 소괄호 · 대괄호 · 중괄호
Integral	integral · int · 인테그랄
Sum	sigma · sum · 시그마
Product	product · prod · 파이
Limit	lim · limit · 리미트
Derivative	derivative · 도함수 · 프라임
Partial derivative	partial · 라운드
Matrix	matrix · 매트릭스 · 행 · 열
Function	sin · cos · tan · log · 삼각함수 · 로그
Accents	hat · vec · bar · dot · 벡터 · 화살표 · 밑줄 · 윗줄

Family	These also find it
Greek	greek · alpha · beta · gamma · 알파 · 베타 · 감마
Relation	등호 · 부등호 · 닮음 · 합동 (and the translated item names)
Operator	더하기 · 빼기 · 곱하기 · 나누기 (and the translated item names)
Arrow	arrow · 이면 · 필요충분
Sets/logic	set · logic · 부분집합 · 합집합 · 교집합 · 원소
Digit	분수꼴 · 로마 · 원문자 · 번호
Korean notation	순열 · 조합 · 순환소수 · 교과서

Recently used symbols

Symbols you have used from a palette stay as small chips under  **recently used symbols** at the top of the left sidebar. When you use the same symbol again and again, this is quicker than searching.

6.12 Pick equation — the equation gallery

Instead of typing from scratch, you can **pick a finished equation and edit it**. When you open the editor, family tabs and **equation cards drawn for real** are laid out below the canvas — **14 families, 1009 equations**. Click a card and it goes into the canvas with the cursor in the first empty slot (). Just change the numbers and letters.

- 1 Choose a family tab. Each tab shows its count.
- 2 Or type a name or symbol in the search box at the top — **quadratic** , **integral** , **matrix** .
- 3 Click a card. **It is inserted at the cursor**, so you can also join several pieces together.
- 4 Move through the empty slots with **Tab** and fill them in.

Family	Count	What is in it
Basic frames	29	Empty frames such as fraction, radical, scripts, integral, matrix
Elementary	120	Fraction and decimal arithmetic · column arithmetic (up to division with a remainder) · units · area and volume
Middle school	152	Integers and expressions · equations and inequalities · functions · similarity · circles · probability
High-school algebra	113	Factoring · equations and inequalities · exponents and logarithms · sequences
High-school calculus	104	Limits · derivatives · integrals · series
High-school geometry	94	Trigonometric functions · conic sections · vectors · solid figures
High-school probability & statistics	71	Permutations and combinations · probability · distributions · estimation
Sets/propositions	46	Set operations · propositions · methods of proof
Korean notation	27	Repeating decimals · ${}_nP_r$ · similar $\sim$ · parallel $//$ · Hangul inside equations
Multi-line · derivations	40	Derivations aligned at the equals sign · piecewise conditions
AI & Machine Learning	100	Loss functions · optimization · attention · <code>arg min</code> · <code>arg max</code>
Advanced	64	University-level material such as Maclaurin series, eigenvalues, Jacobians, Fourier series
Matrices & vectors	30	Determinants · inverse matrices · dot and cross products · norms
Science	19	Physics and chemistry formulas

Closing it and opening it again

The gallery stays where it is while you type. If you want more room, close it with the ✕ at the top right — it remembers being closed the next time you start the editor. To open it again, click  **pick equation** at the top of the left sidebar, or right-click the canvas and choose **pick equation**.

Column arithmetic is in there too

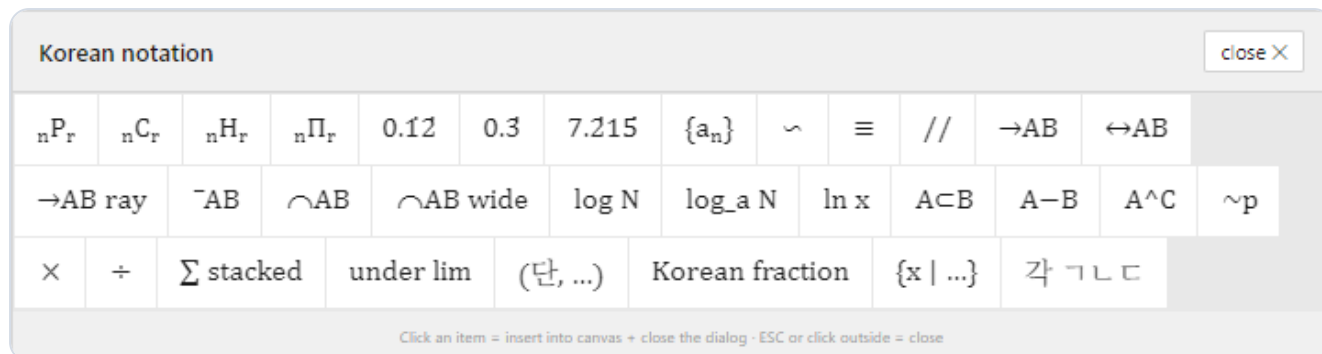
Long division and column multiplication, addition and subtraction in elementary-school books need their digits lined up, which is tedious to build by hand. The "Elementary" family has them with the digit alignment already done, and also as **blank frames** with the numbers left empty.

Making them your own

Once you have adapted an equation you use often, register it with the + of **favorites** ★, or press **F2** to save it under a name as a **clip**. Clips are kept as files, so **passing the folder along lets you share the pieces with the people you work with**.

7. Korean textbook notation

Mathematical notation follows different conventions from country to country. If you simply use the symbols that are common internationally, what goes out differs from the pages of Korean textbooks and workbooks. So that you don't have to memorize these differences, MyMath puts a **"Korean notation" palette** first among the palettes and in the first group of the ribbon.



The "Korean notation" palette in the ribbon's first group — 32 items on one screen.

7.1 What it is based on

The reference is the list of [terms and symbols](#) in the **Ministry of Education's notified mathematics curriculum (Annex 8)**. The original notices of the 2009, 2015 and 2022 revisions were compared against each other. In the 2022 revision, [terms and symbols](#) no longer exists as a separate item; it is written into the "considerations when applying the achievement standards" of each area as sentences.

Primary sources

2022 revision (current), Notice No. 2022-33, Annex 8 · 2015 revision, Notice No. 2015-74, Annex 8 · 2009 revision, Notice No. 2011-361, Annex 8. The textbook editorial guidelines contain no rules on symbol notation — they are a glossary of terms.

A common misconception

The inequality signs are $\leq$, $\geq$, not $\leq$, $\geq$. All three revisions write $\leq$, $\geq$. Also, these signs are introduced in middle school; elementary school uses only $>$ and $<$.

7.2 Symbols that differ from international notation

The symbols in the table below are **different characters even where they look alike**. In particular, similarity $\sim$ (U+223D) and $\sim$ (U+223C) are separate characters, mirrored left to right.

Meaning	Commonly used	Korean textbooks	Note
Similar	<code>\sim</code> ($\sim$)	<code>\backsim</code> ($\sim$)	A different character, mirrored left to right
Congruent	<code>\cong</code> ($\cong$)	<code>\equiv</code> ($\equiv$)	Where Korean and international notation part ways
Parallel	<code>\parallel</code> ($\parallel$)	<code>\mathbin{/\!/}</code> ($//$)	The notice itself prints two slashes
Vector	<code>\vec{a}</code> (short hook)	<code>\overrightarrow{a}</code>	A long arrow covering the whole letter
Subset	<code>\subseteq</code> ($\subseteq$)	<code>\subset</code> ($\subset$)	$\subseteq$ is not in the notice's list
Set difference	<code>\setminus</code>	<code>A-B</code>	A plain minus sign
Complement	<code>A^c</code> (lowercase)	<code>A^{C}</code> (uppercase)	
Negation	<code>\neg p</code>	<code>\sim p</code> ($\sim p$)	
Common logarithm	<code>\log_{10}</code>	<code>\log</code>	Omitting the base is the formal style
Natural logarithm	<code>\log_e</code>	<code>\ln</code>	

The "symbol > relation" palette still has the international forms too, each with a description that tells you which is which. For instance, the description of the `\cong` item reads "congruent $\mathbb{W}$ cong — international notation. Korea uses $\equiv$ ", and that of `\parallel` reads "parallel $\mathbb{W}$ parallel — international notation. Korea uses $//$ ". When typesetting international papers or English-language books, pick those.

$${}_5P_3 = 60 \quad \triangle ABC \backsim \triangle DEF$$



$\triangle ABC \sim \triangle DEF$, $//$ m placed in Korean notation.

7.3 All 32 items of the "Korean notation" palette

Clicking a palette button places the result below at the cursor. is an empty slot to fill in; the cursor lands in the first .

#	Item	Result	Description
1	${}_nP_r$	<code>{_{}_{}\\mathrm{P}_{}_{} }</code>	Permutation. The P stands upright only with <code>\\mathrm</code>
2	${}_nC_r$	<code>{_{}_{}\\mathrm{C}_{}_{} }</code>	Combination
3	${}_nH_r$	<code>{_{}_{}\\mathrm{H}_{}_{} }</code>	Combination with repetition
4	${}_n\Pi_r$	<code>{_{}_{}\\Pi_{}_{} }</code>	Permutation with repetition
5	$0.12'$	<code>0\\.dot{_{}_{}\\.dot{_{}_{} }</code>	Repeating decimal — two digits (a dot on each end)
6	$0.3'$	<code>0\\.dot{_{} }</code>	Repeating decimal — one digit
7	$7.215'$	<code>\\.dot{_{}_{}_{}\\.dot{_{}_{} }</code>	Repeating decimal — three digits. Dots on the first and last digits only ; the middle is left bare
8	$\{a_n\}$	<code>\\{a_{}_{}\\}</code>	Sequence. Plain braces are LaTeX grouping syntax, so they would vanish
9	$\sim$	<code>\\backsim</code>	Similar. Not <code>\\sim</code>
10	$\equiv$	<code>\\equiv</code>	Congruent. Korea uses $\equiv$, not $\cong$
11	$//$	<code>\\mathbin{\\!/\\!/}</code>	Parallel. Korea uses $//$, not $\parallel$

#	Item	Result	Description
12	$\rightarrow AB$	<code>\overrightarrow{\square}</code>	Vector — an arrow covering the whole letter
13	$\leftrightarrow AB$	<code>\overleftrightarrow{\mathrm{\square}}</code>	Line
14	$\rightarrow AB$ (ray)	<code>\overrightarrow{\mathrm{\square}}</code>	Ray — <code>\mathrm</code> is applied so that the point names stand upright
15	$\overline{AB}$	<code>\overline{\mathrm{\square}}</code>	Line segment
16	$\frown AB$	<code>\overset{\frown}{\mathrm{\square}}</code>	Arc — a small $\frown$, close to the look of the textbooks
17	$\bigwedge AB$ (wide)	<code>\overparen{\mathrm{\square}}</code>	Arc — a wide arch
18	$\log N$	<code>\log \square</code>	Common logarithm — omitting the base is the formal style
19	$\log_a N$	<code>\log_{\square}</code>	Logarithm with a base
20	$\ln x$	<code>\ln \square</code>	Natural logarithm. Not <code>\log_e</code>
21	$A \subset B$	<code>\subset</code>	Subset. $\subset$, not $\subseteq$
22	$A - B$	<code>-</code>	Set difference. A minus sign, not <code>\setminus</code>
23	A^C	<code>^{C}</code>	Complement — capital C
24	$\sim p$	<code>\sim \square</code>	Negation. Not <code>\neg</code>
25	$\times$	<code>\times</code>	Multiplication — $\times$ even in high school, not <code>\cdot</code>
26	$\div$	<code>\div</code>	Division
27	$\sum$ stacked	<code>\sum\limits_{\square}^{\square}</code>	Sum — limits above and below even inline

#	Item	Result	Description
28	under lim	<code>\lim\limits_{\square \to \square}</code>	Limit — the condition below even inline
29	(단, ...)	<code>\quad \text{((단, \square))}</code>	A proviso in Hangul ("provided that..."). The notice itself uses this as formal notation
30	Korean fraction	<code>\dfrac{\text{\square}}{\text{\square}}</code>	The (natural number)÷(natural number) form
31	{x ...}	<code>\{ \square \mid \text{\square} \}</code>	Set-builder notation — the condition is written in Hangul
32	각 $\rceil$ $\sqsubset$ $\sqsubset$	<code>\text{각 \square}</code>	Elementary school — vertices are named with Hangul consonants and the $\angle$ sign is not used

Even faster

The 13 most used of these are also assigned to the **Ctrl + T** two-step shortcut. You can enter them without taking your hands off the keyboard → see chapter 13.

7.4 Things that are hard to build by hand

Repeating decimals — where the dots go is the rule

Dots go on **the first and last digits** of the repeating block only; the middle is left bare. The example in the notice itself has the form `7.\dot{2}1\dot{5}`. Dotting the middle digits too would mean something else.

7. $\dot{2}$ 1 $\dot{5}$ 0. $\dot{1}$ $\dot{2}$



A three-digit repeating decimal — dots only on the first digit 2 and the last digit 5.

The four permutation and combination forms

Without `\mathrm`, the P, C and H slant into italics and no longer match the textbook page. The palette items already include `\mathrm`. The pre-subscript is held in place by an empty `\{ \}` group — in the

editing view this empty group shows as an empty-slot mark ($\square$), but it is tidied away in the output.

Sequences $\{a_n\}$

In LaTeX, braces are grouping syntax, so typed plainly they do not appear on screen. The palette item inserts the escaped form $\{\ \backslash\}$.

Lines, rays, segments and arcs

Meaning	Command	Shape
Line	$\overleftrightarrow{\mathrm{AB}}$	Arrow at both ends
Ray	$\overrightarrow{\mathrm{AB}}$	Arrow at one end
Segment	$\overline{\mathrm{AB}}$	Horizontal rule
Arc	$\overset{\frown}{\mathrm{AB}}$	A small $\frown$ (close to the textbook look)
Arc (wide arch)	$\overparen{\mathrm{AB}}$	An arch spanning the width of the letters

A command to avoid

$\overgroup$ is not in the output engine and produces an error. $\wideparen$ and $\overarc$ are accepted as the same thing as $\overparen$. For arcs, use $\overset{\frown}$ or $\overparen$.

7.5 The multiplication sign

$\times$ **continues to be used** in high school as well, as in $750^\circ=360^\circ\times 2+30^\circ$. This differs from the preference for $\cdot$ common in English-language typesetting.

- In algebraic expressions the multiplication sign is omitted — $3ab$
- The middle dot $\cdot$ is **reserved for the vector dot product**
- $\cdot$ (U+22C5) inside an equation and the middle dot of Korean body text (U+00B7) are different characters. Mixed on the same page, their widths look off

7.6 Stacking the limits of Σ and $\lim$ even inline

By default, the typesetting engine places the limits of Σ , $\prod$ and $\lim$ **beside the symbol** when inline. Korean textbooks place them **above and below** even inline. The `\Sigma stacked` and `under lim` items of the "Korean notation" palette insert the form with `\limits` attached.

Use	What is inserted	Result
Sum	<code>\sum\limits_{k=1}^n</code>	Range above and below Σ
Limit	<code>\lim\limits_{n \rightarrow \infty}</code>	Condition below $\lim$

For an equation already built, the position of the limits can be changed under "big-operator scripts" in the properties panel: `↕ stacked` / `→ side` / `auto`. Only the one operator that contains the cursor changes.

$$\lim_{x \rightarrow 0} \frac{\sin x}{x} = 1$$

The condition of $\lim$ sits below even inline.

This affects vertical position

Stacked limits make the equation noticeably taller. If the vertical alignment looks different when placed inline, check the vertical offset of chapter 8 as well.

$$a_{n+1} = a_n^2 + 2$$

The size and position of scripts can be set to your publication's standard under "equation size" in Preferences.

7.7 Hangul inside equations

The notice itself uses notation such as `(자연수)÷(자연수)` and `{x | x는 10 이하의 자연수}`. It is the formal style, not an exception. MyMath draws Hangul inside equations by taking the outlines directly from an installed Korean font, so print quality (K100 vector) is kept without installing any extra font on the InDesign side. Choose the font under "Korean font for text in equations" in Preferences.

8. Vertical position

An equation placed inside a line of text (inline) can look slightly raised or lowered against the body text — this is the thing that most often needs a hand in equation typesetting. MyMath **aligns it automatically at the moment you place it**, and if something still catches the eye, lets you fine-tune **that one equation** by hand.

8.1 Automatic alignment — how it works

When you place an equation inline, the following happens automatically, in this order.

- 1 **Center vertically in the line** — the vertical center of the equation is matched to the visual center of the body text. The target is a height of $0.44 \times$ the body text size (above the baseline); half the equation's height is subtracted from it to get the anchor's vertical offset. Whether the body text is 9 pt or 12 pt, the result is **proportional to the text size**, so the equation sits at the same ratio.
- 2 **Recompose the text** — the paragraph containing the equation is composed again. If this step were skipped, body text could appear to vanish from the screen.
- 3 **Measure and correct** — after placing, the actual deviation is measured and corrected (up to 3 times). The baseline of the equation's anchor character and the baseline of the body character right next to it are read, and the equation is raised by the difference.

Why step 3 is needed

In Korean typesetting, on a line that contains a tall inline object, the baseline of the anchor character sits lower than that of the body characters on the same line. A calculated value alone leaves this gap. So after placing, the actual page is read and the position is corrected once more. The correction is always recomputed as an absolute value, "reference value + current gap" (it is never accumulated).

The body text size used for the reference vertical position is read from the character size at the spot where the equation is placed. If it cannot be read, 11 pt is assumed.

8.2 Fine-tuning a single equation

Use the **Vertical offset** row under "Connection settings" in the panel. Automatic alignment gets most equations right; this is for the occasional equation that is unusually large and catches the eye.

- 1 **Click the equation** in InDesign to select it. The vertical offset display in the panel changes to that equation's actual value, such as **+2.5 pt (selected)**.
- 2 Choose the step in the dropdown — **1 / 0.5 / 0.25 / 0.1 / 0.05** pt. The default is **0.25 pt**; your choice is saved and kept for next time.
- 3 **▲** up / **▼** down — each click moves it by one step immediately.
- 4 Gone too far? **0** returns it to the standard automatic position (the measured correction runs again too).

Situation	Display	What ▲▼ do
An equation is selected	That equation's actual vertical value (pt)	Move that one equation only
Nothing selected	"Select an equation"	Nothing happens; a hint is shown

Placing is never affected

The vertical offset moves **only the one equation that is already placed**. Newly placed equations always use the standard automatic formula of 8.1 and nothing else. If a global correction were mixed into placing, a single wrong value would seat every equation in the wrong position.

After a move, the status line shows both the requested value and **the amount actually moved**, for example **This equation: vertical 3.2 pt • moved +0.25 pt**. If the actual movement is **0.00**, the value was not applied, so check whether the equation is inline or placed freely on the page. A free-standing equation has no anchor offset, so the panel reports "This is not an inline equation".

8.3 Lines with tall equations

A line containing a tall equation — a fraction, an integral, a Σ with limits above and below — gets extra leading under auto leading, so the line spacing within the paragraph becomes uneven. If the page looks awkward even though the equation's vertical position is right, the cause is usually leading.

Recommended

For body paragraphs where equations appear often, use **fixed leading** (set leading as a number in the paragraph style). Line spacing is no longer pushed around by equation height, and the page comes out even. With fixed leading, the position computed by automatic alignment also has the same reference on every line.

If a tall equation still touches the characters of the line above, it is often more natural on the page to **set it as a display equation on its own line** than to lower it with the vertical offset. Another option is to switch the limits of Σ or $\lim$ to "→ side" for that equation only, which reduces its height (see 7.6).

8.4 Reading the equation info box

When you select an equation in InDesign, an info box appears at the top of the panel. It has two lines.

Line	What you see	Meaning
First line	The equation's LaTeX source	Beyond 60 characters it is shortened with <code>...</code> . This value is stored as plain text in the frame's label
Second line	<code>Size 24.3 × 11.7pt</code>	Actual width × height of the equation graphic. Shown in pt even if the document rulers are in mm
	<code>text 10.5pt</code>	Body text size at the spot where the equation sits. This is the reference for the automatic alignment
	<code>vertical 2.1pt</code>	The anchor's vertical offset. Positive = up , negative = down

For an equation placed freely outside a line of text, the second line reads `Not inline (placed on the page)`.

Order of checks

When the vertical position looks off, check in this order: ① does **text pt** in the info box match the real body text size? → ② is the **vertical** value something odd, close to 0? → ③ return to the standard position with `0` → and if it still catches the eye, ④ fine-tune with ▲▼.

9. Working with a whole document

Up to the previous chapter the subject was building one equation. This chapter is about **handling a whole book**. Converting all the equation source flowed in with a manuscript, counting every equation in the document, exporting them as a list, and re-rendering the whole document in one go after changing the typesetting settings — all of this happens in the "Document" section of the InDesign panel.

9.1 How the panel is laid out

From the top, the panel consists of **one status line** and then three sections.

Section	What it is for	What is in it
Edit	Build or change a single equation	[Edit Equation] · quick-insert box + [Insert] · status line · information about the selected equation
Document	Handle the whole document (or a chosen text frame) at once	2 scope buttons · [Place manuscript (Word · HWPX)] · [Convert \$...\$ equations] · [Re-render all equations] + size · [Count equations] · [Send list to editor] · [Export SVG] · [Export PNG] · [Export CSV] · [Redraw view]
Connection settings	Sets the channel to the editor, and vertical position	Folder [Change] · EXE [Choose] · Vertical offset (step · ▲ · ▼ · 0) · Language

The status line is your manual

The line at the top of the panel tells you exactly what the last action did. It speaks in numbers — **128 equations across 34 pages** , **Conversion finished – placed 42 · skipped 1 · failed 0** — so always read this line after clicking a button.

9.2 Scope — whole document vs selected frame

The two buttons at the top of the "Document" section decide **what the functions below them act on**. The active one is shown darker. The default is **whole document**.

Scope	Target	When to choose it
Scope: whole document	Every text frame in the document	Processing the whole book at once (default)
Scope: selected frame	The entire story of the text frame the text cursor is in (if several frames are threaded, the whole thread)	Trying things out on just one chapter or one article

The scope applies to the following six functions.

- [Convert \$...\$ equations]
- [Re-render all equations]
- [Count equations]
- [Send list to editor]
- [Export SVG] · [Export PNG]
- [Export CSV]

[Redraw view] always acts on the current document, whatever the scope.

Place the cursor first

With the scope set to "selected frame", clicking a button with no cursor gives **Scope is "selected frame" – put the cursor in a text frame first** and does nothing. One click inside the text frame with the Type tool is all it takes.

Start narrow

The first time you use a batch function in a new document, we recommend running it on one article with **selected frame**, checking the result by eye, and then, if you are happy, switching to **whole document** and clicking again.

9.3 The Edit section

[Edit Equation]

Opens the editor window to build or change an equation. It is the button you will click most in the panel.

- 1 With the Type tool, click where the equation should go in your text (an inline equation). If nothing is selected, it is placed on the page.
- 2 Click [Edit Equation] in the panel.
- 3 The editor window opens. If it is already open, that window comes to the front and its content changes.
- 4 Finish the equation and click [Id InDesign] in the editor.
- 5 The panel places it in the document by itself. **There is nothing more to click in the panel.**

The panel passes a few things to the editor along with the request.

- The **text size at that spot** (`pointSize`) and the **font name** — the editor uses them to work out the equation's dimensions and baseline depth. That is why the same equation comes out with a different size and sitting height in 9.5 pt text and in 11 pt text.
- The **equation's identifier** (when an existing equation is being changed) — with it, the editor's status bar shows `re-edit mode` , and on placing, **the equation at that spot is replaced** instead of a new one being added.

The quick-insert box + [Insert]

Short equations go in straight from the panel, without switching windows. It is **the shortest route**.

- 1 Place the cursor in your text.
- 2 Type the equation in the panel's quick-insert box.
- 3 `Enter` or [Insert].

The box accepts **both LaTeX and AsciiMath**. You can type without backslashes, as in `1/2` , `x^2` , `sqrt(2)` , or in LaTeX, as in `\frac{1}{2}` . The editor renders it in the background and hands it back, so **the quality is exactly that of an equation built with [Edit Equation]** — it goes through the same vector PDF path.

It is not placed if empty slots remain

If the converted result is an unfinished equation with unfilled slots ($\square$), it is not placed automatically; the editor opens in edit mode and tells you. Fill the slots there and click [Id InDesign].

Information about the selected equation

Click an equation in the document and an information box appears in the panel's Edit section. With nothing selected it disappears.

Shown	Meaning
First line	The equation's LaTeX source (up to 60 characters, then ...)
Size 32.4 × 18.7pt	The real width × height of the equation's frame. Even if the document rulers are in mm, it is always converted to pt
text 10.5pt	The size of the text where the equation sits
vertical 8.2pt	How far it is raised from the text baseline (positive = up)
Not inline (placed on the page)	An equation placed separately on the page rather than anchored in the text flow

Use it when proofreading

Click a spot where the equation looks unusually tall and read the **text** value: you see at once whether that equation inherited the wrong size. Clear up such spots in one go with "Re-render all equations".

9.4 Converting \$equations\$ in a manuscript

Instead of inserting equations one at a time, you **write them as text in the manuscript and convert them all later**. It is especially convenient when the author and the typesetter are different people — the author needs to know neither InDesign nor MyMath.

Rules for writing the manuscript

In the manuscript (Word, a text editor, anything), wrap each equation in dollar signs at the place it belongs.

The sum of the two roots of the quadratic $x^2-5x+6=0$ is $\frac{-b}{a}$.

Rule	Details
Within one line only	There must be no line break between <code>\$</code> and <code>\$</code> . Write long equations on one line too
A real dollar sign	Write <code>\\$</code> and it is left alone rather than read as an equation (for example <code>the price is \\$100</code>)
Empty content	An empty pair such as <code>\$ \$</code> is skipped
Notation	Write the inside in LaTeX (<code>\frac{a}{b}</code> , <code>x^2</code> , <code>\sqrt{2}</code>)

Bringing the manuscript into InDesign

- 1 Create a text frame in InDesign and place the cursor in it with the Type tool.
- 2 With `Ctrl + D` (Place), choose the manuscript file (`.docx` , text saved from `.hwp` , and so on).
- 3 The text flows in. The `$...$` parts are still just characters.
- 4 Sort out the text formatting (font, size, leading) first. **Equations follow the text size at their spot, so formatting comes first.**

Converting

- 1 Set the scope (the first time, "selected frame" for just one article).
- 2 Click [Convert `$...$` equations].
- 3 The panel scans the text, finds every `$...$` and reads the text size at each spot.
- 4 The editor renders them one by one (if the editor is closed, the panel tries to start it automatically).
- 5 The panel places the results **from the end toward the beginning**, because changing an earlier spot first would shift the positions of the later characters.

- 6 When all are in, it recomposes the text and adjusts the vertical positions automatically.

Reading the result

When it finishes, the status line reads like this.

Conversion finished – placed 42 · skipped 1 · failed 0 · vertical correction x2

Item	Meaning	What to do
placed	The number turned into equations	—
skipped	Spots whose characters changed while waiting for the render, so they were no longer <code>\$equation\$</code>	Do not touch the text during a conversion. Click the button once more and the remaining spots are handled
failed	Equations that could not be rendered at all (syntax errors and the like)	The <code>\$...\$</code> is still there in the text. Find it and fix the source
vertical correction xN	How many times baselines thrown off by the height of inline equations were corrected automatically (4 at most)	Normal behavior. It is not a problem if this item is absent either

When it says nothing was found

If `No $...$ found` appears, it is usually one of three things — ① the scope is "selected frame" but the cursor is in a different frame ② a line break crept in between `$` and `$` ③ autoformatting in the manuscript changed the dollar signs into some other character.

Prepare your way back beforehand

A batch conversion deletes characters from the text and places equations where they were. **Save the document before converting**, test on one article first, then apply it to the whole.

9.5 Re-render all equations

Re-renders the document's equations with the current settings and replaces them in place.

Position, size and the surrounding characters stay as they are; only the graphic is swapped for a new

one.

When to use it

- After changing equation sizes (script ratios and so on)
- After changing the thickness of fraction bars or radical lines
- After changing the print color (K100 · spot color · overprint)
- After changing the typefaces by category or the precision spacing
- After switching to a different style set
- When you have changed the body text size throughout and the equations look too large or too small

The size drop-down

The drop-down to the right of the button sets **the size to re-render at**.

Value	What happens	When to use it
Auto (default)	Each equation follows the text size at its own spot	Documents with mixed text sizes — a spot in 10 pt body text and a spot in an 8 pt footnote each come out right
8 · 9 · 9.5 · 10 · 10.5 · 11 · 12 · 14 · 16	Every equation in the document is set to that size	Tidying up, in one go, a document whose equation sizes have become uneven
Custom...	A box appears beside it. Type a number from 1 to 127 pt and press Enter	When you need a size not in the list, such as 10.2 pt. Once confirmed it is added to the list and can be chosen again later

Steps and results

- 1 Set the scope and the size.
- 2 Click [Re-render all equations].
- 3 Status line: **Re-rendering 128 equations (following the surrounding text size) – the editor is working...**
- 4 The editor renders them one by one. Progress is shown in the editor window too.

5 At the end: Re-render finished – replaced 126 · not found 2 · failed 0

Item	Meaning
replaced	The number swapped for a new graphic in place
not found	Equations deleted or moved elsewhere after the list was made, so their spot could not be found
failed	Rendering or placing did not work at all

Equations without an identifier are left out

Equations placed with MyMath carry an identifier for finding their spot. If there are only equations without one, it says `Equations were found, but they have no identifier, so they cannot be replaced in bulk` and does nothing. Such equations have to be placed again one at a time.

When there is no response

If no result arrives within 10 minutes, it says `No response from the editor – check that it is open` and stops waiting. Check that the editor window is open and that the exchange folder is the same on both sides, then click again.

9.6 Count equations

Tells you at once how many MyMath equations there are in the current scope, and across how many pages.

128 equations across 34 pages

Click it before and after a batch job to check that the numbers agree, or to estimate the amount of work. If none are found, it says `No MyMath equations found in this document`.

9.7 Send list to editor + proofing check

Sends the list of every equation in the document to the **editor's sidebar**. It is the most useful function at the proofing stage.

- 1 Click [Send list to editor] in the panel.
- 2 Status line: [Sent a list of 128 equations – see "document equations" in the editor sidebar](#)
- 3 The list appears, with page numbers, under "document equations" in the editor's sidebar.
- 4 Click a line in the list and that equation comes to the canvas in **re-edit mode**.
- 5 Change it, click [Id InDesign], and **that spot in the document is updated**. There is no need to find and click the equation in the document.

Send once, stay current

Once you have sent the list even a single time, the panel **sends it again automatically** every time you place or change an equation or run a batch conversion. You do not have to click the button each time.

Proofing check

The [proofing check] in the editor's sidebar goes through the whole loaded list and marks **only the equations with a problem, in red**.

Mark	Meaning	What to do
empty equation	It has no content	Delete it or fill it in
empty placeholder 	Unfilled input slots remain	Click to load it, fill the slots and place it again. This one leads straight to a printing accident
duplicate (of no. N)	Its content is identical to an earlier equation	Leave it if the repetition is intended. Fix it if it is a copying slip
render error	The source is broken and it cannot be drawn properly	Click to load it and fix the source

At the end you see [Proofing check done – 3 need review \(red rows\)](#) or [Proofing check done – everything looks fine](#) .

The order of work at the proofing stage

① Panel [Send list to editor] → ② editor [proofing check] → ③ click only the red rows, fix and place → ④ [proofing check] again. Export the PDF for print only after **everything looks fine** appears.

9.8 Export SVG · PNG

Saves the document's equations as images, **one file per equation**. Use it to carry the same equations over to web material or slides.

- 1 Set the scope.
- 2 Click [Export SVG] or [Export PNG].
- 3 Choose the folder to save in.
- 4 The editor renders them one by one and saves them in that folder.
- 5 At the end: Image export finished – 126 of 128 succeeded → (folder path)

Format	Character	Use
SVG	Vector — stays sharp however much you enlarge it	Web pages, other editing programs
PNG	Image (at 300 dpi)	Word documents, slides, wherever an image is needed

Not for print

For print, the right choice is not SVG or PNG but **the vector PDF path that goes straight into InDesign** (chapter 12). These two buttons are for taking images out of the document.

9.9 Export CSV

Finds every equation in the document and saves **two list files**. You choose the folder.

File	Name	Purpose
CSV	<code><document name>-equations-<number>.csv</code>	View, count and review in Excel
JSON	<code><document name>-equations-<number>.json</code>	For other tools to read and process

The CSV has the following five columns.

Column	Contents
Page	The page number the equation is on
frameId	The equation's location identifier (used for bulk replacement)
LaTeX	The equation source — searchable and replaceable
Width (pt)	The width of the equation's frame (two decimal places)
Height (pt)	The height of the equation's frame (two decimal places)

Non-Latin text opens correctly in Excel

The CSV is saved with a byte-order mark at the front, so Korean and other non-Latin text shows correctly when you open it directly in Excel. Equations containing commas, quotation marks or line breaks are wrapped in quotation marks automatically.

9.10 Redraw view

After an equation is placed inline, **the text characters sometimes seem to disappear from the screen**. It happens because the composition state is left stale, and this button revives it in three steps.

- 1 Recompose that story.
- 2 Recompose the whole document.
- 3 Force the screen to redraw.

When it finishes, the status line shows what took effect (for example `refreshed story+doc+redraw`).

Normally you never need it

The same treatment is applied automatically every time an equation is placed. This button is for **manual recovery** when the screen still looks wrong, and for narrowing down the cause of a problem.

9.11 Connection settings

Folder

The folder through which the panel and the editor exchange files. **There is nothing for you to set** — when the panel starts it finds the standard location (`Documents\MyMath\exchange`) and connects to it by itself, creating it if it does not exist.

- 1 Open the panel.
- 2 The status line shows `Exchange folder auto-connected: ...` and the path appears on the "Folder" row.
- 3 Only if you want to use a different folder, click [Change] and choose it yourself (`Exchange folder set: ...`).

Once connected, it stays connected when you quit and restart InDesign. If the automatic connection fails, the panel says so with the reason: `Exchange folder not set – click [Change] · auto-connect failed: (reason)`.

When the automatic connection fails

Click [Change] and choose `Documents\MyMath\exchange` yourself. **It must be the same folder the editor uses** — the editor always uses this standard location. To find out why it failed, see the log files in chapter 14.

EXE

The location of the editor's program file. **You can usually leave it empty** — when you click [Edit Equation], the panel looks through the standard install locations in turn and starts the editor automatically.

Only if it cannot be found automatically, click [Choose] and point to the program file yourself. In that case the status line shows `⚠ Editor is not responding (launch path not found)`, so you will know

at once. You can also simply start the editor yourself — while it is open, the button reaches that window directly.

Vertical offset (▲ ▼ 0)

Inline equations sit on the baseline automatically. If one still looks slightly high or low to the eye, raise or lower **that one equation** by hand.

- 1 Click the equation in the document. The display changes to something like `+8.2 pt (selected)`.
- 2 Choose the step — `1` · `0.5` · `0.25` (default) · `0.1` · `0.05` pt.
- 3 Click ▲ (up) or ▼ (down) and adjust by eye. Each click reports in the status line how many pt it actually moved.
- 4 To undo, [0] — it returns to the standard automatic position.

Shown	Meaning
<code>+8.2 pt (selected)</code>	The actual vertical value of the selected equation (positive = up)
<code>Select an equation</code>	No equation has been selected yet
<code>This is not an inline equation</code>	The equation is placed separately on the page, so it has no baseline

The step you choose is saved and used next time too. The vertical offset acts on that one equation only and **has no effect on equations placed afterwards**.

Language

The language of the panel's text. The default is **Auto (InDesign language)** — it follows the language InDesign is running in. Choose another language here and **the panel changes at once, and the editor follows shortly** (see "Language" at the end of chapter 10).

9.12 The re-editing flow

There are three ways to change an equation that is already placed. In all three, **the spot and the surrounding characters stay the same** and only the content changes.

Way	How	When it is convenient
Pick it in the document	Click the equation → panel [Edit Equation] → change it and [Id InDesign]	Fixing the spot you are looking at right now
Pick it from the list	Panel [Send list to editor] → click under "document equations" in the editor's sidebar → change and place	Fixing several in a row · the proofing stage
All at once	[Re-render all equations]	Keeping the content and swapping only the typesetting settings

When an equation is placed again, its spot is found in the following order.

1. If the equation currently selected still exists, **that spot** is replaced.
2. Otherwise the document is scanned for the **identifier** the editor sent along, and that spot is replaced.
3. If neither is available, it goes in as a **new equation** (at the cursor, or on the page).

The graphic that is placed has an order of preference too — a **vector PDF** comes first, an SVG made by the editor second, and one drawn by the panel itself is the last safety net. In normal use it is always the first choice, the vector PDF, that goes in.

Equations live inside the document

The placed graphic does not point to an outside file; it is **embedded in the document**. No "missing link" warning appears when you close and reopen the document, and the equations show as they are even if you hand over the document alone. The equation's source is stored separately at the same spot, so you can edit it again at any time.

10. Preferences

Preferences is where you decide **what your equations look like when drawn**. Font size, typefaces, spacing, line thickness, print color — values that, once set, apply equally to every equation you make from then on are gathered here. That is different in kind from operations that touch a single equation (delimiter height in the properties panel, precision nudge and so on).

Opening it

- 1 Click the  button at the right of the title bar.
- 2 Or press `Ctrl + ;`.
- 3 Or use menu **View** → **preferences**.

From top to bottom, the dialog runs through the groups **style set / equation size / font style by category / print color (separation) / line thickness / precision spacing / Korean font for text in equations / inline vertical position / appearance / Korean publishing options / tab order**. Values are kept only when you click `save` at the bottom.

preferences close X

style set

load (no saved style sets) apply

name e.g. middle-school textbook, 10.5 save delete

Bundles settings into one file. Share the folder and collaborators' typesetting will match. (Documents\MyMath\StyleSets)

preview (pick a style set to preview it with that setting)

open save folder Set as starting default no starting default

equation size

base size 0 pt 0 = follows InDesign body size

script size 70 % TeX default 70 · small scripts 50

scriptscript size 50 % TeX default 50 · small scripts 35

preview $x^{2^3} + a_{n_k} = \frac{1}{2}$

quick presets: TeX default (70/50) small scripts (50/35)

medium (60/42)

font style by category

variable italic (default) ▼

Greek upright (default · Γ Δ) ▼

uppercase

The Preferences dialog. The groups follow one another vertically, and each has a preview box drawn through the real output path.

Equations already placed are not updated automatically

The values set here apply to **equations you make from now on**. To bring equations already placed in an InDesign document over to the new settings as well, click **[Re-render all equations]** once in the InDesign panel. It redraws every equation in the document with the current settings and replaces each one in place.

Previews are rolled back before saving

The preview box of each group **applies the values for a moment, draws, and puts them back**. So if you look at the preview and then close the dialog, nothing is kept. Be sure to click [save](#) .

10.1 Style sets

A style set is **all the values of Preferences stored in a single file**. Use it when typesetting rules differ from book to book, or when several people share the work on one book. Pass the file around and everyone's equation typesetting comes out exactly the same.

What is stored

Group	What is stored
Equation size	Base size · script % · scriptscript %
Line thickness	Fraction bar · radical rule
Print color	Black method · CMYK values · spot color name · alternate CMYK · overprint
Font style by category	All 13 categories + the User1 and User2 character lists
Precision spacing	The % values of the 12 MathJax parameters
Korean font for text in equations	Path and name of the font file
Inline vertical position	Auto baseline alignment · estimate alignment · ratio

Buttons

Button	What it does
The load list + apply	Choose a saved style set and apply it to the current settings.
name + save	Saves every value now shown in the dialog to a file under that name.

Button	What it does
<code>delete</code>	Deletes the file of the style set chosen in the list.
<code>open save folder</code>	Opens the folder that holds the style sets in File Explorer.
<code>Set as starting default</code>	The editor starts with this style set every time. The chosen name is shown beside the button.
preview	Draws a real sample with the settings of the style set chosen in the list, so you can check the result before applying.

Where the files are

Style sets are saved as `.json` files in the following folder.

`~/Documents/MyMath/StyleSets/`

Using the same typesetting across a team

- 1 One person settles the typesetting rules and **saves** them as a style set.
- 2 Open the folder with `open save folder` and hand out the `.json` file.
- 3 Each recipient puts the file in the same folder, chooses its name from the list in Preferences and clicks `apply`.
- 4 To keep working under those rules, click `Set as starting default`.

10.2 Equation size

Sets the base size of equations and how much scripts shrink. How small scripts are set differs from publisher to publisher and book to book, so the values are left open for you to decide.

Item	Unit	Range	Default	Description
Base size	pt	0 – 200 (steps of 0.5)	0	0 = follow the InDesign body text size. The text size at the spot being edited is read and the equation is drawn at that size. Any value other than 0 fixes the size regardless of the body text.
Script size	%	10 – 100 (steps of 1)	70	The scale for one level down: what percentage of the base the 2 in x^2 is.
Scriptscript size	%	10 – 100 (steps of 1)	50	The size of a script of a script (the 2 in x^{y^2}). It applies to every position two or more levels deep.

Quick settings

Button	Script / scriptscript
TeX default (70/50)	70% / 50%
small scripts (50/35)	50% / 35%
medium (60/42)	60% / 42%

A scriptscript cannot be smaller than the square of the script ratio

By construction a scriptscript is "a script shrunk once more", so **the square of the script %** is its lower limit. With scripts at 50%, for example, the lower limit for scriptscripts is 25%; with scripts at 70% it is 49%. If you enter a value below the limit, a note appears under the preview — "a scriptscript cannot be smaller than the square of the script ratio ($N\%$), so $N\%$ is applied" — and that limit is what is actually used. A value **above** the limit is applied as entered.

The editing canvas follows the ratios set here too. The script size you see on screen and the script size that goes into InDesign are the same. The status bar shows the current size, as in $10.5\text{pt} \cdot \text{script } 50\%$.

Storage keys: `mymath_size_base` / `mymath_size_script` / `mymath_size_scriptscript`

10.3 Font style by category

The characters in an equation are **divided by kind**, and each kind is given its own letterform (upright, italic, bold, sans-serif, monospace). "Variables italic, digits upright, function names upright" is the basic rule of mathematical typesetting, but it varies a little from publisher to publisher. This is where you match those differences.

These are all 13 categories.

Category	What it applies to	Available values	Default
Variable	Single letters such as <code>x y z</code>	italic · upright · bold upright · bold italic · sans-serif · monospace	italic
Function name	<code>sin cos log lim</code> and so on	upright · bold upright · italic · bold italic · sans-serif · monospace	upright
Greek uppercase	<code>Γ Δ Ω</code>	upright Γ · italic Γ · bold upright · bold italic · sans-serif · monospace	upright Γ
Greek lowercase	<code>α β θ</code>	italic α · bold	italic α
Digit	<code>0–9</code>	upright · italic · bold · sans-serif · monospace	upright
Operator	<code>+ - = < > × ÷ ≤</code> and so on	default · bold	default
Vector	The letters inside <code>\vec</code> and <code>\overrightarrow</code> . The arrow itself does not change	follow the variable setting · italic · upright · bold upright · bold italic · sans-serif · monospace	follow the variable setting
Body text	Characters inside <code>\text{}</code> — things like <code>(단, x>0)</code>	normal · bold · italic · sans-serif · monospace	normal
Whole equation	Everything not caught by any category — delimiters <code>() []</code> , punctuation, symbols such as <code>∞ ∂ ∠</code>	default · bold	default

Category	What it applies to	Available values	Default
User1	Only the characters you list in the User1 characters box below. Applied before the variable and digit rules	don't apply · italic · upright · bold upright · bold italic · sans-serif · monospace	don't apply
User2	Characters not caught by User1 that are listed in the User2 box	don't apply · italic · upright · bold upright · bold italic · sans-serif · monospace	don't apply
Script box	Everything in a script position, like the 2 in x^2 or the i in x_i	same as a normal box · italic · upright · bold upright · bold italic · sans-serif · monospace	same as a normal box
Scriptscript box	A script of a script (the 2 in x^{y^2}). Every position two or more levels deep	same as a normal box · italic · upright · bold upright · bold italic · sans-serif · monospace	same as a normal box

The User1 · User2 character boxes

In the two boxes below the category list, **type the characters to apply the style to, run together** (for example `abc`). Commas and spaces count as characters too, so type the characters only. Use them for rules such as "only the `i j k` used as vectors in this book are bold".

What is left alone

- **Typefaces set directly in the equation** — a group that already names a typeface, such as `\mathbf{v}`, is left as it is. The inner setting takes precedence over the category rules.
- **Command names** — the names of control sequences themselves, such as `\sin` and `\frac`
- **Environment names** — `\begin{pmatrix}` and so on

Weight and slant of Hangul in the body-text category do not carry into the vector PDF

Hangul inside `\text{}` becomes bold or slanted only on screen and in SVG. The vector PDF placed in InDesign uses the outlines of the **one** Korean font chosen in 10.7. If you give Hangul both bold and italic, only the inner one is applied.

Some combinations are not in the lists — only what works was included

The following were left out of the choices because, when actually drawn and checked, they **did not work or gave uneven results**.

- **Upright, sans-serif and monospace Greek lowercase** — the math font has no such glyphs.
- **Sans-serif and monospace operators** — it works for ASCII signs ($+$) but not for named symbols ($\times$ $\leq$), so the result is mixed.
- **Bold italic digits** — the glyph shape is the same as bold, so there is no visible difference.
- **Even with bold operators on**, symbols with no bold glyph in the font, such as $\sim$ $\leq$ $\geq$, do not become bold. Also, the spacing around a unary minus (-1) may change to that of a binary operator.

Assigning a **different font file** to each category is not possible with this method. The choices go as far as the shape variants the math font already has (upright, italic, bold, sans-serif, monospace).

Storage keys: `mymath_stylecat_` + the category name

10.4 Script weight (make scripts a bit bolder)

This is a checkbox in the **kr Korean publishing options** group of Preferences.

Item	Default	Description
make scripts a bit bolder (so they stay legible when shrunk)	Off	Wraps the content of script positions in bold so that it does not clog or fade in print.

Scripts shrink to around half the body size, so at the same weight their strokes become thin on paper and can look faint. Some publishers use a heavier face for scripts than for the body, and this option serves the same purpose.

Positions where a weight has already been set ($x^{\mathbf{2}}$ and the like) are left alone. Switch it on or off and the result is drawn in the preview box just below.

Korean body-text presets

These are five buttons in the same group. Click one and the five values **base size** · **script %** · **scriptscript %** · **fraction bar** · **radical rule** change together.

Preset	Base size	Script	Scriptscript	Fraction bar	Radical rule
middle-school textbook (body 10pt)	10 pt	60%	45%	0.35 pt	0.7 pt
High-school textbook (body 9.5pt)	9.5 pt	60%	45%	0.35 pt	0.7 pt
workbook (body 9pt, tight)	9 pt	55%	40%	0.30 pt	0.6 pt
worksheet (body 11pt, large)	11 pt	70%	50%	0.40 pt	0.8 pt
TeX default	0 (follows body text)	70%	50%	0 (auto)	0 (auto)

These values are not based on measurements

The preset values only offer a **starting point** at common body sizes; they were not obtained by measuring real Korean textbooks. Adjust them to your own book as you work, then save the result as a style set.

Storage key: `mymath_subfont_bold`

10.5 Print color (separation)

Decides **what color the black of an equation is printed in**. If you are making printed matter, this is the most important setting.

Black method	What goes into the PDF	When to use it
Solid K100 (default · recommended)	DeviceGray 0 — the black plate alone	The right choice for equations mixed into body text. On separation they are drawn on the black plate only, so they are the same black as the body text and registration shifts cause no trouble.

Black method	What goes into the PDF	When to use it
Specify CMYK directly	The C M Y K values you give	When the printer asks for specific CMYK values. Each box takes 0–100%; the default is K 100 only.
Spot color (Separation)	A PDF Separation color space + alternate CMYK	When the color is to be output on its own spot plate. Give the spot color name (for example PANTONE 072 C) together with the four alternate CMYK values used on screen and in composites.
RGB	The RGB values as they are	Only for screen and web output.

Leaving black as RGB causes a printing accident

RGB black becomes a **black built from all four inks (rich black)** on CMYK separation. Its density looks different from the body text (K100) on the same page, and the slightest misregistration puts colored fringes around the glyphs. Always keep equations that are mixed into body text at **K100**. When you choose a method, a note that fits that method appears at the bottom of the dialog.

Overprint

Item	Default	Description
Overprint	Off	Prints the black on top of the color beneath. With it off, the color beneath is knocked out where the black goes, and a slight misregistration leaves a white fringe around thin lines. It helps especially in equations with many thin elements such as fraction bars and radical rules.

Accent colors are separated too

In the CMYK and spot modes, **colors other than black** (accent colors given to part of an equation) are also converted to CMYK on output. So you can predict which plates they will land on when separated. Pure black still goes out as K100 alone.

Storage keys: `mymath_color_mode` / `mymath_color_cmyk` / `mymath_color_spotname` / `mymath_color_spotcmyk` / `mymath_color_overprint`

10.6 Line thickness

Sets the weight of fraction bars and radical rules in pt. These values affect print quality directly.

Item	Unit	Range	Default	Description
Fraction bar	pt	0 – 5 (steps of 0.01)	0 = auto	The weight of the horizontal bar of the <code>\frac</code> family.
Radical rule	pt	0 – 5 (steps of 0.01)	0 = auto	The weight of the top line of <code>\sqrt</code> .

The default (auto) is about **0.66 pt** at 11 pt body text, which is on the heavy side for print. If you want thinner lines to match your book's typesetting rules, enter the values yourself.

A value entered in pt is converted internally to a **proportion of the body size**. So the lines keep the same relative weight when the body size changes.

Storage keys: `mymath_sp_fracbar` / `mymath_sp_rootbar`

10.7 Korean font for text in equations

Chooses the font in which **Hangul inside an equation**, such as `(단, x>0)`, is drawn.

Item	Description
find font	Type part of a name and the list below is filtered at once. Examples: <code>Myungjo</code> , <code>Nanum</code> , <code>Batang</code>
The font list	The Korean fonts installed on this computer. Eight rows show at a time, and it scrolls.
Count	Below the list, the number currently filtered and the total are shown.
Preview	Draws a real equation containing Hangul in the chosen font.

How it works

When the editor starts, it goes through the system font folder and the user font folder, checks whether each font file contains Hangul characters, and builds the list. It reads `.ttf` · `.otf` · `.ttc` alike.

On output, MyMath **takes the outline of each character directly** from the chosen font file and draws it just like the other math symbols. As a result:

- **The font does not have to be installed on the InDesign side.** Equations go in as shapes, without referring to a font.
- The font is not embedded whole in the PDF, so documents do not grow heavy.
- Hangul is a vector path like any other symbol, so **the solid K100 guarantee holds.**

Choose the same font as your body text

If Hangul inside an equation differs from the body font, it stands out on the same line. Choose the same name as the body font of your manuscript and the page looks natural.

Storage key: `mymath_hangul_font`

10.8 Precision spacing

Fine-tunes the spacing between the parts of an equation. The items appear only after you click `expand` at the right of the group title.

With the defaults, you can leave it alone

The default of every item is **"change nothing"**. The default spacing already follows rules of mathematical typesetting refined over a long time, so **unless you have to match the typesetting rules of a particular book, you can simply pass this group by.** To undo changes, there are two buttons: `set all to 100%` and `reset precision spacing`.

10.8.1 Basic typesetting parameters (12 items, unit %)

Values are % **of the default**. `100` is the default state.

Group	Item	What changes
Fraction	Numerator height	How far above the fraction bar the numerator sits
	Denominator depth	How far below the fraction bar the denominator sits
	Fraction bar height	How far above the baseline the fraction bar itself is

Group	Item	What changes
Script	Superscript height	How far superscripts rise
	Subscript depth	How far subscripts drop
	Space after a script	The gap to the character that follows a script
	Italic correction	Horizontal correction for a script attached to a slanted letter
Big operator	Limit gap (above)	Between the upper limit and the sign of $\sum \int$
	Limit gap (below)	Between the lower limit and the sign
	Limit padding	The padding outside the limits
Delimiters	Delimiter growth factor	What % of the content the delimiters are grown to
	Null delimiter width	The width kept when one side of a pair is empty

Storage keys: `mymath_fine_` + the item name

10.8.2 Spacing by structure (23 items)

From here on, **the default is 0 (or 100%) = nothing added**. Whatever you enter is added.

Group	Item	Unit	Range	Default	Description
Matrix	Row spacing	em	−0.4 – 3	0	Widens the gap between rows. Delimiter height grows to match
	Column spacing	em	−0.4 – 3	0	Widens the gap between columns. Vertical partition rules move along
	Partition rule thickness	%	10 – 500	100	The weight of the divider of an augmented matrix
	Partition rule horizontal overhang	em	−0.3 – 1	0	The length a horizontal partition rule extends past the table left and right
	Partition rule vertical overhang	em	−0.3 – 1	0	The length a vertical partition rule extends past the table top and bottom
Delimiters	Horizontal padding	mu	−6 – 18	0	Between the delimiter and the content. $18\mu = 1\text{em}$
	Minimum width	em	0 – 8	0	If the inside is narrower than this, it is widened. 0 = no limit
	Vertical scale	%	50 – 200	100	The vertical size of <code>\left ... \right</code> delimiters
	Maximum growth	%	0 – 900	0	Delimiters that exceed this size are reduced. 0 = no limit

Group	Item	Unit	Range	Default	Description
Script	Minimum gap above	em	−0.4 – 1	0	Raises superscripts further (relative to the script size)
	Minimum gap below	em	−0.4 – 1	0	Lowers subscripts further
	Right-side length correction	mu	−3 – 12	0	Space added after a script. It adds to "Space after a script" (%) above
Fraction	Fraction overhang	em	−0.1 – 1	0	The length the bar extends past the numerator and denominator on each side
	Minimum gap, numerator side	em	−0.3 – 1	0	Moves the numerator further from the center line
	Minimum gap, denominator side	em	−0.3 – 1	0	Moves the denominator further below the center line
	Slashed fraction spacing	mu	−3 – 12	0	The spacing around a fraction written with a slash, as in <code>a/b</code>
Radical	Tail width	%	50 – 250	100	The horizontal size of the radical's tail. The content moves right by the same amount
	Top line overhang	em	−0.2 – 1	0	The length the radical's top line extends past the content on the right

Group	Item	Unit	Range	Default	Description
TeX automatic spacing	Around binary operators	%	0 – 400	100	Around <code>+ - × ÷ ± ·</code> (4mu by default)
	Around relations	%	0 – 400	100	Around <code>= < > ≤ ≥ ≠ ≡</code> (5mu by default)
	After punctuation	%	0 – 400	100	After commas and semicolons (3mu by default)
	Around function names	%	0 – 400	100	Around function names such as <code>sin cos log lim</code> (3mu by default)
	Between function letters	em	-0.08 – 0.4	0	The letterspacing between <code>s·i·n</code> in <code>sin</code>

The unit mu

`mu` is the spacing unit used in mathematical typesetting: **18mu = 1em**. At 10 pt body text, 1mu ≈ 0.56 pt.

Storage keys: `mymath_spadv_` + the item name

10.8.3 Spacing by pair (25 pairs + 1 option)

The elements of an equation are divided into ten kinds, and spacing is adjusted separately according to **which kind follows which**. Where "TeX automatic spacing" in 10.8.2 is a % per kind, here you can give a different value to **each adjacent pair**. Values are offsets in `mu`, and all defaults are 0.

Kind	What belongs to it
Ordinary character	Single letters and symbols such as <code>x</code> , <code>α</code>
Digit	0–9. A run of digits with a decimal point counts as one item
Binary operator	<code>+ - × ÷ ± ·</code> (except when used as a sign)
Relation	<code>= < > ≤ ≥ ≠ ≡ ∈ ⊂ →</code>

Kind	What belongs to it
Opening delimiter	<code>(</code> <code>[</code> <code>\{</code>
Closing delimiter	<code>)</code> <code>]</code> <code>\}</code>
Punctuation	<code>,</code> <code>;</code> <code>:</code>
Function	Operator names such as <code>sin</code> <code>log</code> <code>lim</code> <code>\int</code>
Group	Fractions, radicals, matrices, <code>\left...\right</code>
Term with a script	Anything with <code>^</code> or <code>_</code> attached, such as <code>x^2</code>

These are the 25 pairs you can adjust. "Default" is the spacing normally inserted at that spot.

Group	Pair	Default	Example
Around binary operators	Ordinary character → binary operator	4mu	Between a and + in <code>a+</code>
	Binary operator → ordinary character	4mu	Between + and b in <code>+b</code>
	Digit → binary operator	4mu	Between 2 and + in <code>2+</code>
	Binary operator → digit	4mu	Between + and 3 in <code>+3</code>
	Group → binary operator	4mu	Before a + that follows a fraction or radical
	Binary operator → group	4mu	Before a fraction or radical that follows a +
	Closing delimiter → binary operator	4mu	Between) and + in <code>)+</code>
	Term with a script → binary operator	4mu	Between x ² and + in <code>x²+</code>

Group	Pair	Default	Example
Around relations	Ordinary character → relation	5mu	Between a and = in $a=$
	Relation → ordinary character	5mu	Between = and b in $=b$
	Digit → relation	5mu	Between 2 and = in $2=$
	Relation → digit	5mu	Between = and 3 in $=3$
	Group → relation	5mu	Before an = that follows a fraction
	Relation → group	5mu	Before a fraction or matrix that follows an =
	Term with a script → relation	5mu	Between x^2 and = in $x^2=$
Function names	Ordinary character → function	3mu	Before a function name, as in $x \sin$
	Function → ordinary character	3mu	After a function name, as in $\sin x$
	Function → opening delimiter	0	Between the function and the parenthesis in $\sin($
After punctuation	Punctuation → ordinary character	3mu	$, x$ between the comma and the letter
	Punctuation → digit	3mu	$, 2$ between the comma and the digit
Around groups	Ordinary character → group	3mu	Before a fraction or radical that follows x
	Group → ordinary character	3mu	Before an x that follows a fraction or radical

Group	Pair	Default	Example
Spots that are normally 0	Digit → ordinary character	0	$2x$ between the coefficient and the letter
	Ordinary character → ordinary character	0	ab between letter and letter
	Term with a script → ordinary character	0	x^2y between the scripted term and the next letter

The last three pairs are spots where the spacing is normally 0. Give them a value and you can set the coefficient and the letter of $2x$ slightly apart, or open up the letterspacing between letters, to match the typesetting taste of your book.

The comma-decimal option

Item	Default	Description
Treat a comma between digits as a decimal point	Off	When on, $3,14$ is set tight like a European decimal. In mixed expressions, real decimal points and the commas between function arguments are left alone.

Where the two overlap, only one applies

If "TeX automatic spacing" (the % per kind) in 10.8.2 and a pair offset in 10.8.3 fall on the same spot, the pair offset skips that spot so that the spacing is not added twice. Also, inside scripts (the arguments of $\wedge$ and $_$) separate typesetting rules apply, so pair spacing is not applied there.

Storage keys: `mymath_spmat_` + the pair name

10.8.4 Resetting

Button	What it resets
<code>set all to 100%</code>	The 12 items of 10.8.1
<code>reset precision spacing</code>	The items of 10.8.2 · 10.8.3

10.9 Appearance

Changes the **look** of the symbols themselves. These settings stretch and slant the glyph shapes; they are not about size or position.

Space width

Item	Unit	Range	Default	Description
Space width	%	10 – 400 (steps of 5)	100	Widens or narrows, all at once, the width of spacing commands such as <code>\,</code> and <code>\quad</code> .

Sigma shape

Item	Choices / range	Default	Description
Sigma shape	Default (Western) · narrow, slanted shape · specify directly	Default	The overall shape of the Σ sign. With "specify directly", the three boxes on the right are used.
Horizontal	50 – 200% (steps of 5)	100	Horizontal scale of Σ
Vertical	50 – 200% (steps of 5)	100	Vertical scale of Σ
Slant	–30 – 30° (steps of 1)	0	The angle by which Σ is slanted

Integral sign

Item	Range	Default	Description
Slant	–30 – 30° (steps of 1)	0	The angle by which $\int$ is slanted
Vertical	50 – 200% (steps of 5)	100	Vertical scale of $\int$

Arrowhead

Item	Choices / range	Default	Description
Arrowhead	Default · redraw the head (keep the box width)	Default	With "redraw the head", the arrowhead is drawn anew. The horizontal width it occupies is left unchanged, so the spacing before and after is not disturbed.
Head height	50 – 200% (steps of 5)	100	The height of the arrowhead

Two limitations

- **Double-line arrows ($\Rightarrow$ $\Leftrightarrow$) are not changed.** They have two shafts, so they cannot be redrawn by the same method.
- The "**narrow, slanted shape**" of the sigma is an **approximation** made by narrowing and slanting the same glyph. It is not a swap to a different typeface.

Both points are also stated in notes inside the dialog.

Change a value and the result is drawn at once in the preview box below the group. The transformations added here carry over exactly to the vector PDF, and the solid K100 guarantee holds.

Storage keys: `mymath_appear_` + the item name

10.10 Inline vertical position · tab order

10.10.1 Inline vertical position

Where an equation placed inside a line of text sits vertically is decided automatically by the InDesign panel. It matches the vertical center of the equation to the visual center of the body text and then corrects it once more with a value actually measured on the page after placing (see chapter 8 for details).

The three items of this group do not currently affect placing

Auto baseline alignment · **center an inline equation on the body text (estimate method)** · **ratio** are settings of the earlier alignment method. The values are stored with style sets, but the present automatic centering does not use them. If a single equation looks high or low, move just that equation with **Vertical offset** ▲ ▼ under "Connection settings" in the panel (9.11).

Storage keys: `mymath_align_autobaseline` / `mymath_align_enable` / `mymath_align_divisor`

10.10.2 Tab order

Decides **which slot the cursor goes to first** when you press `Tab` inside a fraction.

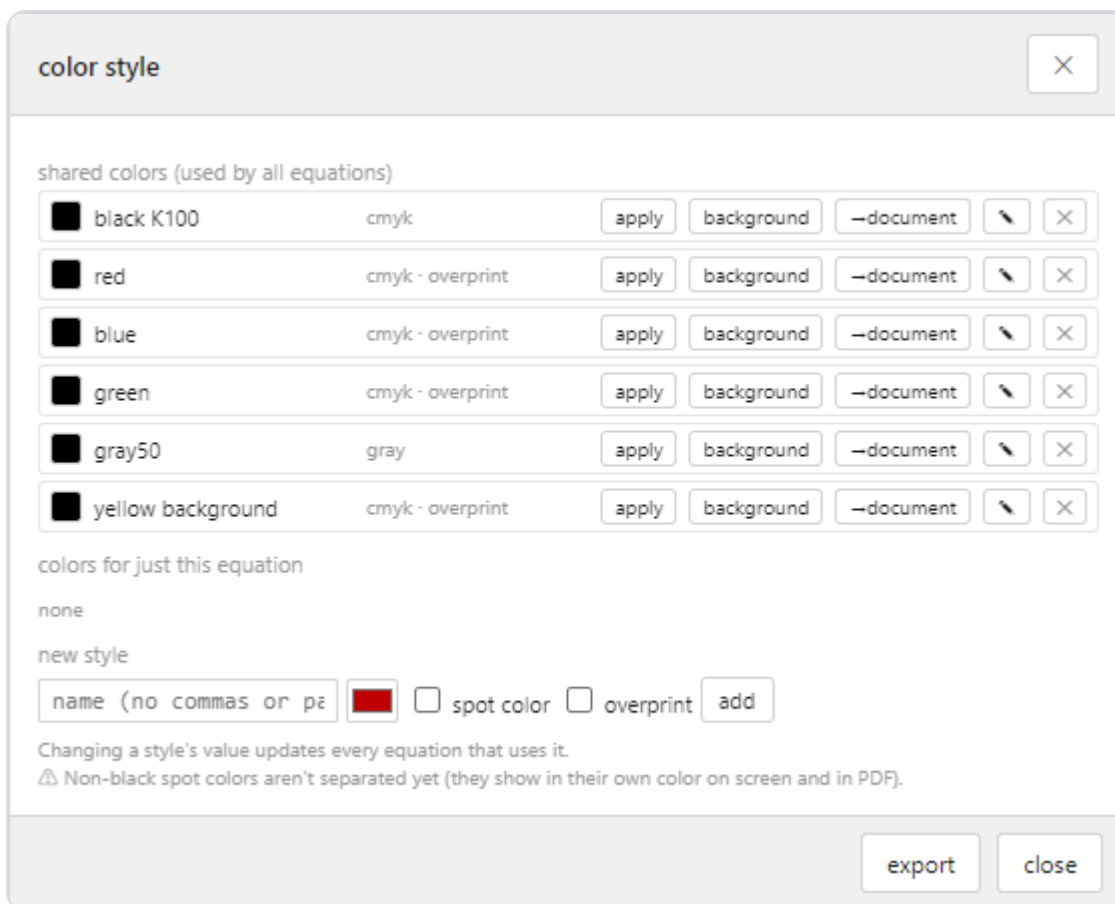
Choice	The order Tab travels in	Default
Western — numerator first	Numerator → denominator → out of the fraction	Default
Eastern — denominator first	Denominator → out of the fraction	

Korean and Japanese typesetting practice visits the denominator first. It matches the order in which a fraction is read aloud in those languages (denominator first), and some people find that it makes the flow of typing more natural.

Storage key: `mymath_cursor_order`

10.11 Color styles

Color styles are managed not in the Preferences dialog but in a **separate window**. Open it with  `color style` in the ribbon, or from the menu bar.



Styles included by default

Name	Color model	Value	Notes
black K100	CMYK	0 / 0 / 0 / 100	The same solid black as body text. On separation it is drawn on the black plate only
red	CMYK	0 / 90 / 86 / 0	
blue	CMYK	100 / 72 / 0 / 0	
green	CMYK	85 / 10 / 100 / 0	
gray50	Gray	Lightness 0.5	0 is black, 1 is white
yellow background	CMYK	0 / 5 / 60 / 0	A pale background for highlighting an equation

The buttons on each item

Button	What it does
	Gives that color to the current selection (or to the whole equation if there is none)
	Applies it as the background color rather than the text color
 / 	Moves it to the other list
	Edits the name, color value, spot color and overprint
	Deletes the style

Each row of the lists also shows, beside the name, whether it is a **spot color** and whether **overprint** is set. With  at the bottom of the window you can write the list of styles to a file.

Making a new style

- 1 Type a name in the **new style** box at the bottom of the window.
- 2 Set the color model and the values.
- 3 If needed, tick the **spot color** · **overprint** checkboxes.
- 4 Click **add** .

Some characters cannot be used in names

Commas, parentheses and `{ } \ $ % # [ ] : ~ ^ _ & < > " ' ` | ;` cannot be used. These characters have a meaning in equation syntax, and an equation breaks if they get into a name. Names can be up to 40 characters long.

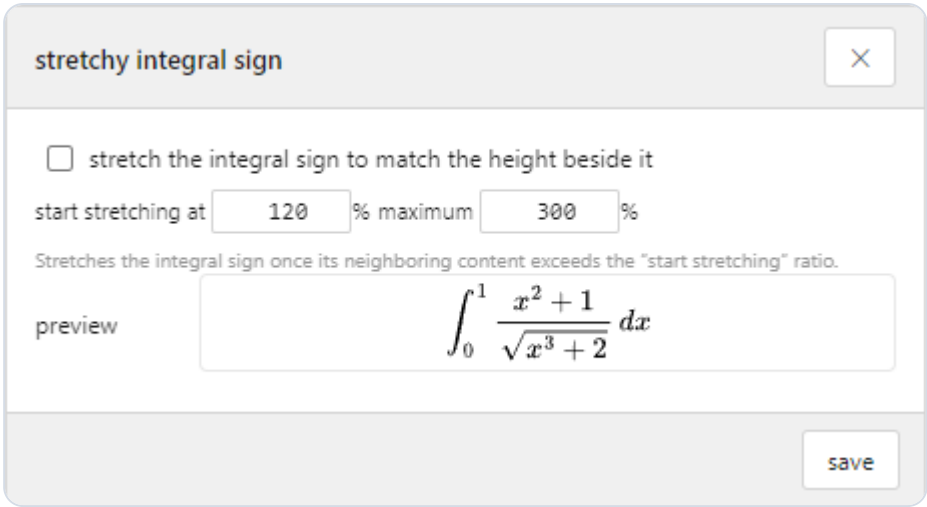
Spot colors other than black are not yet separated

Even if marked as a spot color, a color other than black is drawn in the PDF as an ordinary color, not on a spot plate. It shows in its proper color on screen and in the PDF, but no spot plate appears on separation. The same warning is shown inside the window. If you really need a spot plate, use the **spot color (Separation)** mode of 10.5 Print color.

Storage keys: `mymath_colorstyles_app` (shared) / `mymath_colorstyles_doc` (just this equation)

10.12 Stretchy integral

A function that **stretches the integral sign to match the height of the content beside it**. Choose **Stretchy integral...** from the menu bar or the ribbon and set it in its own window.



The stretchy integral window. Change a value and the preview below is redrawn at once.

By default $\int$ has a fixed size, so when the integrand is vertically large, like a fraction or a radical, the integral sign looks small by comparison. With this function on, the sign grows to follow — only in those cases.

Item	Unit	Range	Default	Description
stretch the integral sign to match the height beside it	—	On / off	Off	Switches the whole function on and off.
start stretching at	%	100 – 400 (steps of 10)	120	Stretching starts when the overall height of the equation exceeds this ratio of the integral sign's height. The lower the value, the more often it stretches.
maximum	%	100 – 600 (steps of 10)	300	However tall the content, this scale is never exceeded.

Signs it applies to

Not only the single integral $\int$ but all six kinds — double and triple integrals and the contour and surface integral family.

The baseline is not disturbed

When the sign is stretched, it is **held at the bottom and stretched upward only**. So even when the integral sign grows, the equation is not pushed down within its line of text.

The transformation added here **carries over exactly to the vector PDF**. The stretched shape you see on screen is what goes into InDesign.

Storage key: `mymath_varint`

Language

The panel and the editor **follow the language of InDesign**. With a Korean InDesign they appear in Korean, with an English InDesign in English.

What you want to change	Where
The panel and the editor together	Language at the bottom of "Connection settings" in the InDesign panel. The panel changes at once, and the editor follows shortly
The editor only	Editor menu View → Language . The language chosen here takes top priority
Back to the original	Auto (InDesign language) in both places

Supported languages: English · 한국어 · Deutsch · Français · 日本語 · Español · 简体中文 · Português · Italiano · Русский. With an InDesign in a language that has no translation, they appear in English.

11. Import and export

MyMath **reads 7 formats and writes 20**. Reading is there so that equations you have already built are not lost; writing is there to carry equations to print, the web, documents and other editing programs.

11.1 Formats you can import

Open them with [ **import file**] in the ribbon's "import" group, or from the "File" menu. You can choose several files at once.

Judged by content, not by extension

When you choose a file, MyMath **looks inside it** to decide what format it is. That is how it also finds equation data carried inside an EPS or PDF — files that, going by the extension, are just pictures.

Format	Extension	How it is read	Limits
.mmf equation files	.mmf .mmc	The file structure is decoded and turned into LaTeX. Files containing Korean text are read with the right encoding	The symbol-number table is not complete. Places that are not recognized are left as [S378] and the like, and collected in the report (see 11.3)
MathML	.mml .mathml .xml	Standard MathML elements are turned into LaTeX. Unicode symbols and named entities (&alpha; and so on) are handled too	Elements that are not handled leave a  or [element name] in their place and are reported
Equations inside EPS · PDF	.eps .pdf	Finds and reads the <math>...</math> block embedded in the file. It copes with a % comment mark on every line and with continued line ends	Nothing can be recovered from a picture file that has no equation data embedded in it (no equation data found)

Format	Extension	How it is read	Limits
AsciiMath	<code>.txt</code> <code>.am</code>	Plain-text math notation without backslashes. A tokenizer and a recursive parser read it, nesting included	Unknown tokens are left as <code>\text{[?...]}</code> and reported
Word equations (OMML)	Paste · XML fragment	Fractions, radicals, big operators, delimiters, matrices, alignment, functions, limits, accents, overbars, groups, borders, phantoms and more are carried over	The <code>.docx</code> file itself is not opened here — copy the equation in Word and paste it (11.2)
MediaWiki	Paste · <code>.html</code>	What is inside <code><math>...</math></code> is already LaTeX. Only the wiki-specific commands are replaced	A few commands that mean something else on the wiki (for example superset and supremum) are brought into line with the standard
HTML	<code>.html</code>	Finds every MathML block in the document	Equations that exist only as pictures cannot be read

The most accurate route

If the original source is carried in the file ([annotation](#)), it is used **as is**. No conversion takes place, so nothing at all is lost. The report marks it as [original TeX](#) . The EPS and PDF files MyMath writes carry the original with them (11.6), so they are always read back by this route.

Importing, step by step

- 1 Ribbon "import" → [ import file].
- 2 Choose one file or several.
- 3 The first equation appears on the canvas and the **import report** opens.

- 4 Click another line in the report's list and that equation comes to the canvas.

11.2 Smart paste (**Ctrl** + **Shift** + **V**)

MyMath **looks at the contents** of the clipboard, works out what format they are in, and pastes accordingly. You do not have to choose a format.

Clipboard contents	Clues it recognizes	Result
Word equation (OMML)	The <code><oMath></code> tag	Converted to LaTeX and inserted. The number of unknown elements is reported as well
MathML	<code><math></code> · <code><mrow></code> · <code><mfrac></code>	Converted to LaTeX and inserted
MediaWiki	Wiki notation inside <code><math></code> · <code>{{math ...}}</code>	Converted to LaTeX and inserted
.mmf source	The file's internal markers	Converted to LaTeX and inserted
LaTeX	Control sequences · <code>\$...</code> · <code>\$</code> · <code>^{_}</code> · <code>_</code>	The surrounding <code>\$</code> or <code>\begin{equation}</code> is stripped and the rest inserted as is
AsciiMath	<code>sqrt(</code> · <code>sum_</code> · <code>+-</code> · <code>xx</code> · <code>oo</code> · <code>[[</code>	Converted to LaTeX and inserted. The number of unknown tokens is reported too
Plain text	Only digits, Latin letters and operator signs	Inserted as is

After pasting, the status line says what the contents were recognized as — **Detected format: AsciiMath – pasted**. If it cannot tell, it says so — **couldn't detect the format, treated as LaTeX** — and inserts the text as is.

The quickest way over from a Word manuscript

Click the equation in Word and copy it → **Ctrl** + **Shift** + **V** in this editor. There is no need to open the `.docx` file.

11.3 Reading the import report

When an import finishes, a results window opens. It is a principle of MyMath that **nothing unrecognized is passed over in silence**.

Area	Contents
Top line	12 file(s) · carried over as-is 9 · needs review 3
File list	File name / how it was read (<code>.mmf</code> · <code>MathML</code> · <code>original TeX</code>) / badge (<code>as written</code> or <code>needs review N</code>) / the beginning of the LaTeX. Click a line and that equation comes to the canvas
Unrecognized code	Kind and count, most frequent first, as in <code>symbol 523 x4</code> . The kinds are symbol, template, variant, command, element, character and entity
Notice	Read failures, conversion failures, remarks

Inside the equation, every unrecognized place keeps a **visible** marker such as `[S523]` . It is neither deleted nor quietly swapped for some other symbol, so you can see at once what needs attention.

Extending the symbol table

Symbol numbers are internal to the original program, so they cannot be worked out from the file alone. MyMath is therefore built so that **once you have checked a number and written it down, it is converted automatically from then on**.

- 1 Click [open symbol table] at the bottom of the report. `Documents\MyMath\mmf-symbols.json` opens.
- 2 Check in the original program which symbol that number stands for.
- 3 Write the number and its LaTeX as a pair in the file.

```
{
  "523": "\\clubsuit",
  "60": "\\angle"
}
```

- 4 Save; it takes effect from the next import. The report confirms it with `entries registered now: N`.

Write it down once and it keeps working

You can hand this file to other people together with its folder. If one person on the team sorts it out once, everyone gets the same result.

11.4 Copy as...

Ribbon "export" → [ **copy as...**]. It shows 12 formats, **each with a preview of the result**. You can see what will be pasted before you choose, so nothing gets pasted by mistake.

copy as...

LaTeX exactly as currently written

copy

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

AMS LaTeX wraps with \begin{equation}

copy

$$\begin{equation} x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \end{equation}$$

Plain TeX wraps with \$... \$

copy

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

MediaWiki — for wiki pages

copy

$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

MathML Word, browsers, and other equation editors

copy

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

AsciiMath a format that's easy for a person to read and retype

copy

$$x = (-b \pm \sqrt{b^2 - 4ac}) / (2a)$$

SVG vector graphic (same quality as the output path)

copy

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

read-aloud sentence a sentence that reads the equation aloud, in English

copy

$$x \text{ equals negative } b \text{ plus or minus square root of } b \text{ squared minus } 4ac \text{ over } 2a$$

Google Docs Pastes as-is into Google Docs' equation tool

copy

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Zoho — Zoho Writer equation

copy

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

close

Copy as... — the beginning of the result is shown for every format

Format	Where you paste it	Notes
LaTeX	Other math tools, notes, manuscripts	The format you are working in, unchanged

Format	Where you paste it	Notes
AMS LaTeX	Typesetting academic papers	Wrapped in <code>\begin{equation}</code>
Plain TeX	Equations within running text	Wrapped in <code>\$... \$</code> . Use it as is for the manuscript method (9.4) <code>\$equation\$</code>
MediaWiki	Wiki pages	<code><math> ... </math></code>
MathML	Word, browsers, other equation editors	The standard format. It can be read back too
AsciiMath	Plain-text manuscripts, forums, email	Easy for a person to read and retype
SVG	Web pages, image editors	Made by the real output path — the same quality as what goes into InDesign
Read-aloud sentence	Accessibility alt text, scripts for narration	A sentence that reads the equation out (for example <code>minus b plus or minus root ... over 2 a</code>)
Google Docs	The Google Docs equation tool	Commands it does not know (spacing, environments, <code>\left\right</code> and so on) are removed beforehand to raise the chance of a clean paste
Zoho	Zoho Writer equations	Goes through the same cleanup

Format	Where you paste it	Notes
MS Word equation	The Word equation editor	Written in the format Word reads directly
EPS (vector)	Printers that accept only EPS	The original equation is carried inside as well (11.6)

There are not two kinds of SVG

The SVG copied here is not a screen version; it is **the same SVG that goes to print**. You need not worry about what you see on screen differing from what is written to the file.

11.5 Saving as an image

Ribbon "export" →  **save image**. Where the vector formats (PDF, SVG, EPS) are for print, these are **for the web, slides and Word**.

Save image — choose the resolution first, then click [save] on the format's row

Resolution

Choose from 72 · 96 · 150 · 300 · 600 dpi. The default is **300 dpi**; the dialog opens with the default resolution you set under "import/export settings".

Resolution	Use
72 · 96 dpi	Screen only — web pages, on-screen presentations
150 dpi	Quick printouts, drafts
300 dpi	Printed Word documents and handouts (the recommended default)
600 dpi	When the image will be greatly enlarged. Files become very large

Format

Format	Transparent background	Character · use	Limits
PNG	Yes	Transparent background. The safest choice for the web and slides	—
JPEG	No	A compressed format meant for photographs	The background is filled with white. Equations are mostly lines, so PNG is sharper
GIF	Yes (limited)	256 colors. Transparent background supported	It cannot hold partial transparency, so edges become rough . The body of each glyph is the same as in PNG
BMP	No	Uncompressed raw pixels. For compatibility with old programs	Large files. The background is filled with white
WMF	—	Vector . Practically the only legacy route by which old Office versions and the Hangul word processor accept vectors. Independent of resolution	Curves become fine polylines (corners may show at high magnification) · color goes out as a single solid color, so accent colors are not kept · Korean text inside the equation is left out, with a warning

Fill with white background

Tick it to fill the background with white. **JPEG and BMP cannot hold transparency, so they are always filled.**

When the background comes out black

If you paste an image with a transparent background into a program that does not understand transparency, the background may look black. In that case switch on **fill with white background** and save again.

On saving, the actual pixel size is shown as well — `PNG saved (412×186px): (path)` . For WMF the number of points is shown instead of pixels — `WMF saved (3184 points): (path)` .

11.6 Exporting as vectors

Three formats that stay sharp at any magnification and can be used for print.

Format	Where you export it	Characteristics
PDF	Ribbon [ PDF] · the "File" menu · [save as PDF] in print preview	A vector PDF that fits the equation exactly. Black is K100 only. Glyphs are drawn as outlines, so it looks the same everywhere without any fonts installed (chapter 12)
EPS	[copy as...] → EPS	The same computed result as the PDF, rewritten as PostScript commands, so the coordinates do not differ by a hair. With K100 it uses <code>0 setgray</code> and nothing else. For printers that accept only EPS
SVG	[copy as...] → SVG · the panel's [Export SVG]	Vectors for the web and other editing programs

Carrying the original equation along

With **include the original equation in exported files** switched on under "import/export settings", the equation's original source (MathML and LaTeX) is written into the EPS alongside the drawing.

An EPS written by MyMath can be edited again

Choose such an EPS later with [ open] and MyMath **finds the original carried inside and restores it exactly**. It comes back as an equation, not as a picture. Taking over older files works on the same principle (11.1).

11.7 File-name macros

When you export many equations at once, names are generated from a rule. Type it in the "file name when exporting multiple" box of the ribbon's [ **import/export settings**]; **click a macro below and it is inserted into the name box**. The result is shown live just underneath.

import/export settings

file name when exporting multiple

{DOCNAME}-{#3}
→ MathBook-007

{DOCNAME}

document name

{#}

number

{#5}

5-digit number (00001)

{Y}

year (4 digits)

{Y2}

year (2 digits)

{M}

month

{M2}

month (2 digits)

{D}

day

{D2}

day (2 digits)

{h}

hour

{h2}

hour (2 digits)

{m}

minute

{m2}

minute (2 digits)

{S}

second

{S2}

second (2 digits)

export

☒
inside the exported file **original equation**include (EPS/PDF can be re-edited later)

☐
Use RGB instead of CMYK for EPS (turn off for print)

☐
Include a preview image in the EPS

☒
log a batch-conversion record

image defaults

resolution
300
dpi
☐
white background

save

Import/export settings — click a macro to insert it into the name; the result appears at once

Macro	Meaning	Macro	Meaning
{DOCNAME}	Document name	{D}	Day
{#}	Number	{D2}	Day, 2 digits
{#5}	Number, 5 digits (00001)	{h}	Hour
{Y}	Year, 4 digits	{h2}	Hour, 2 digits
{Y2}	Year, 2 digits	{m}	Minute
{M}	Month	{m2}	Minute, 2 digits

Macro	Meaning	Macro	Meaning
<code>{M2}</code>	Month, 2 digits	<code>{S}</code>	Second
		<code>{S2}</code>	Second, 2 digits

As in `{#5}`, the number after `#` is the **number of digits**. `{#3}` gives `007`.

What you type	Resulting name (document = MathBook, 7th equation)
<code>{DOCNAME}-{#3}</code> (default)	<code>MathBook-007</code>
<code>{Y}{M2}{D2}_{#5}</code>	<code>20260803_00007</code>
<code>eq{#}</code>	<code>eq7</code>

Other settings in the same window

Setting	What it does
Include the original equation	Lets you edit the EPS or PDF again later (on by default)
Use RGB instead of CMYK for EPS	Always off for print work (off by default)
Include a preview image in the EPS	Adds the low-resolution picture that is shown on screen when the EPS is placed
Log a batch-conversion record	Writes a log file when many are exported at once (on by default)
Image defaults — resolution · white background	The values [save image] opens with (300 dpi by default)

11.8 Equation files (.mymath)

Keep a single equation as a file, and open and save it. **Not only the LaTeX but the current typesetting settings** (style set · appearance · script weight) are stored with it, so when you open it later it is reproduced exactly as it was.

Action	Shortcut	What it does
Open	Ctrl + O	Opens a .mymath file. The settings stored in it are applied too
Save	Ctrl + Alt + S	Overwrites the same file
Save As	Ctrl + Shift + S	Saves to a new file
Close equation	Ctrl + W	Clears the canvas (asks once if there is content)

It tells you when a file is not an equation file

If you open some other kind of file, it says **This isn't an equation file** or **unrecognized format** and leaves the canvas untouched.

Converting many files at once

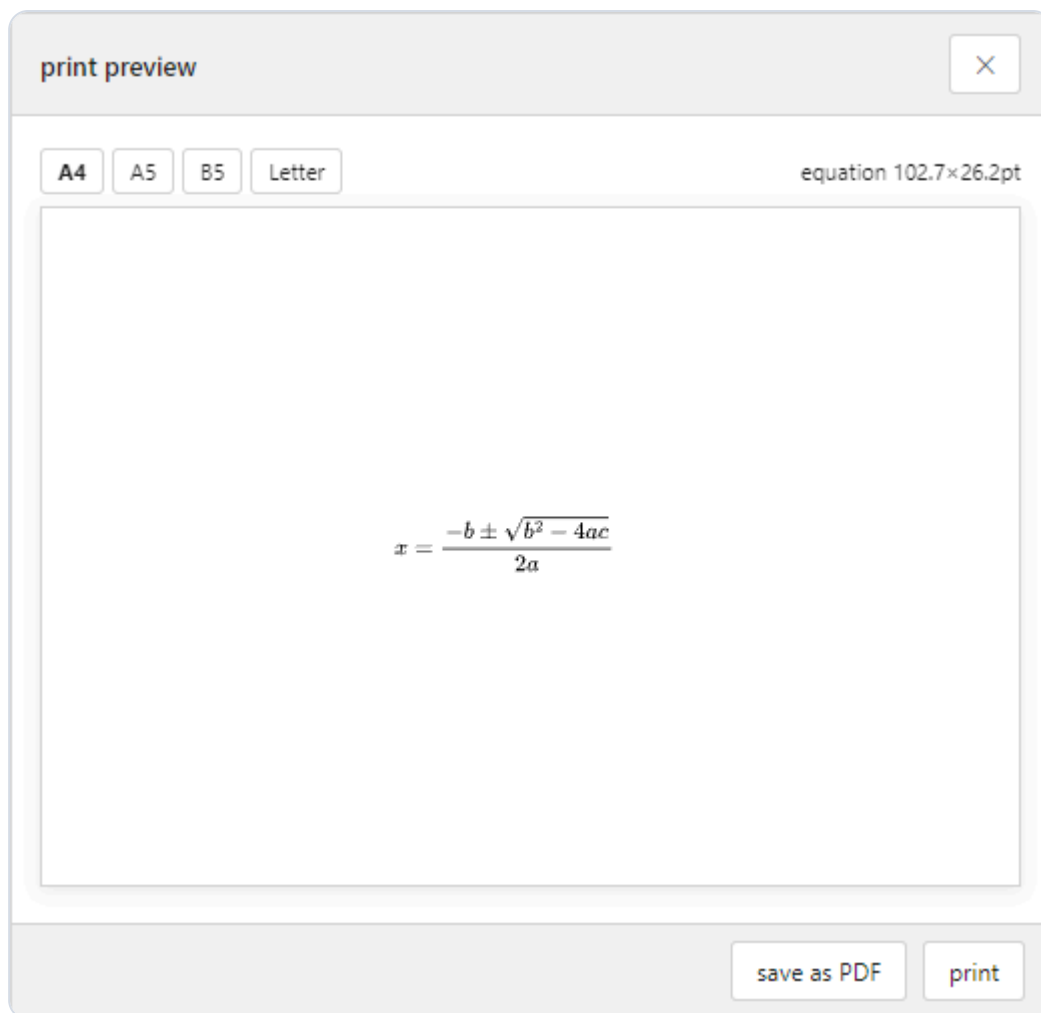
Convert equation files in the "File" menu — choose several files in older formats and save them **all at once** as **.mymath**. Use it when moving a whole collection of older equations over.

- 1 "File" menu → convert equation files.
- 2 Choose the files to convert (.mmf files, MathML, and equations inside EPS or PDF all work).
- 3 Confirm where each file is saved. Only the extension of the original name changes, to **.mymath**.
- 4 Progress is shown as **Converting equation files 3/12 (3 succeeded)**.
- 5 At the end: **Equation files converted – 11 succeeded · 1 failed (file name – no equation)**

The reason for a failure is shown as one of three — **read failed** (the file could not be read) · **no equation** (no equation data inside) · **save failed**.

11.9 Print preview · print

Shows the equation in the middle of a sheet of paper. It is for judging how large the equation is on a real page. "File" menu → print preview (**Ctrl** + **P**).



Print preview — change the paper size to judge the real size

Item	What it does
Paper	A4 · A5 · B5 · Letter. Your choice is kept for next time
Equation size	At the top right, equation 48.2x22.6pt — the dimensions that actually go out
[save as PDF]	Saves a vector PDF (11.6)
[print]	Prints on the connected printer

Use it to get a feel for size

Switch the paper to A5 or B5 to judge how large the equation will look on a workbook or worksheet page. If it seems large, adjust the base size or the script ratio in Preferences and look again.

12. Print quality

This chapter is about producing **data you can hand to the printer**. Looking right on screen and printing without accidents are two different problems.

12.1 Why this tool suits print

Item	What the tool does	What changes in print
Vector	Draws the equation with lines and fills, not as a picture (pixels)	However much it is enlarged, the edges never break into steps. The full resolution of the press is used
Single K100	Draws black on the black plate only	It is the same black as the body text. It never mixes with four-color black, where four plates overlap
No fonts needed	Draws glyphs as outlines	You never have to ask the printer or a contractor to install a special math font. No accident where a missing font changes the shapes
No links	Keeps the equation inside the document	Handing over the document alone is enough. No accident where a "missing link" sends an equation out at low resolution
The source stays with it	Stores the equation's notation together with it, in place	You can edit it again years later. Search and replace work too

12.2 Four ways to handle black

Choose under "print color (separation)" in Preferences. Your choice applies to **every equation you place**.

Mode	What goes into the PDF	In separations	When to choose it
K100 (default · recommended)	Gray color space, value 0 (fill <code>0 g</code> · stroke <code>0 G</code>)	Drawn on the black plate only	Nearly always. Ordinary print work that needs the same black as the body text
CMYK, direct	Four values you specify (fill <code>k</code> · stroke <code>K</code> , default 0/0/0/100)	Split across the four plates exactly as specified	When the printer prescribes particular CMYK values. When you deliberately want a rich black
Spot color (Separation)	A Separation color space plus an alternate CMYK transform (<code>/CS0 cs 1 scn</code>)	Goes out on one dedicated plate	Special jobs that print only the equations in a spot color. You set the spot color name and its alternate CMYK yourself
RGB	Red, green and blue values (<code>0 0 0 rg</code>)	Becomes four-color black during conversion	Screen and web only. Never use it for print

Choosing RGB shows a warning

⚠ RGB becomes 4-color black when separated. Use K100 for equations mixed into printed body text.

Four-color black is printed with four overlapping plates, so the slightest misregistration puts a **colored fringe around the glyph edges**. Next to body text (one black plate) the color also looks noticeably different. This is the most common cause of printing accidents.

What happens to accent colors

An accent color (red, say) given to part of an equation is handled separately from black.

- With **CMYK or spot color**, accent colors are also **converted to CMYK**. Left as RGB, there would be no telling how they separate.
- With **K100 or RGB**, accent colors go out exactly as given.

- In every mode, **pure black always goes out as black alone** — it is handled separately so that conversion never turns it into four-color black.

12.3 Overprint

The **overprint** option under "print color" in Preferences. When on, black is printed **on top of the plates below without knocking them out**.

State	What happens
Off (default)	The other plates under the black are knocked out. With misregistration, a white fringe around thin lines may show
On	Nothing is knocked out; black prints over. Slight misregistration produces no white fringe

Equations are full of **very thin lines** — fraction bars, radical rules, matrix partition rules — so the difference shows. On pages with a tinted background (equations inside a colored box, for instance), turning it on is the safer choice.

Check with your printer

Overprint interacts with how the printer works. The surest thing is to **ask the printer before you hand over the files**. Many printers apply overprint to pure-black elements by default; with those, turning it on gives the same result.

12.4 Line thickness

Set in pt under "line thickness (print quality)" in Preferences. **0 means automatic** (the engine's default).

Item	Range	Default	Reference value
Fraction bar	0 – 5 pt (steps of 0.01)	0 = automatic	0.35
Radical rule	0 – 5 pt (steps of 0.01)	0 = automatic	0.7

The pt value you set is applied **as a proportion of the body text size**. That is why lines give the same impression where the text is 9 pt and where it is 14 pt.

Don't go too thin

Lines thinner than 0.2 pt may **break up or fail to print at all**, depending on the press and the paper — all the more so on absorbent stock such as newsprint or uncoated paper. If in doubt, leaving it on automatic (0) is safer.

12.5 Hangul inside equations

Hangul inside an equation ($(\text{단}, x\text{는 자연수})$ and the like) is not in the math font, so it needs special handling. MyMath **takes the outlines of those characters directly from an installed font** and draws them just like any other symbol.

- The font is not embedded whole, so **the document stays light** and there is no font to send to the printer.
- Choose the font under "Korean font for text in equations" in Preferences. You can search by name.
- If the chosen font lacks some characters, **the number of missing characters is reported**.

Without a chosen font, K100 can be lost

If no Korean font is set and the outlines cannot be taken, the output **falls back from vector PDF to SVG**. The K100 guarantee is then lost. **For documents that use Hangul in equations, always choose the font first.**

12.6 Checks when exporting PDF/X-1a

Things to check when you export a print PDF from InDesign ($\text{Ctrl} + \text{E} \rightarrow \text{Adobe PDF (Print)}$).

Item	What to check
Preset	[PDF/X-1a:2001] — if the printer prescribes one, follow that
Standard	PDF/X-1a:2001
Output — color conversion	Convert to destination. The destination is the profile the printer prescribes
Marks and bleeds	Crop marks and bleed as the printer instructs
Image compression	Equations are vector, so the compression settings do not affect them

What to check after exporting

Open the exported PDF in Acrobat's **Output Preview**.

- 1 **Separations** — do the equations disappear when only the black plate is switched off? If so, K100 is correct. If equations still show on other plates, they have become four-color black.
- 2 **Fonts** — the font list in the document properties should contain **no math font**. Equations are outlines and use no fonts. Only the body text fonts should appear.
- 3 **Images** — there should be no pixel images where the equations are. Everything must be vector.
- 4 **Magnify** — the edges should stay smooth even when an equation is enlarged to 800% or more.

You only need to check once

Equations made with the same settings give the same result throughout the document. Check **a few representative equations**; if they pass, so do the rest.

12.7 Checklist before handing over to the printer

In the editor

- ☐ Print color is set to **K100** (or the mode the printer prescribed)
- ☐ It is **not** set to RGB
- ☐ If equations contain Hangul, a **Korean font is chosen**
- ☐ Line thickness is not excessively thin (not below 0.2 pt)
- ☐ Overprint has been decided together with the printer
- ☐ The style set in use is saved (so the next volume gets the same typesetting)

In the InDesign panel

- ☐ The number of equations was checked with [Count equations]
- ☐ [Send list to editor] → the editor's proofing check reports **everything fine** (in particular, **not a single empty slot** )
- ☐ If settings were changed, [Re-render all equations] was run
- ☐ The vertical position of inline equations was looked over
- ☐ The document is saved

In the exported PDF

- ☐ With only the black plate left, the equations show; on the other plates they do not
- ☐ No math font in the font list
- ☐ No pixel images where the equations are
- ☐ Smooth even at high magnification

The final gate is paper

Even when everything passes on screen and in the PDF, **one proof sheet actually printed** is the last check. Before the full run, print one equation-heavy page on the real paper and the real press, and look at it side by side with body text. Look at three things: the density of the black, the state of the thin lines, and whether the scripts fill in.

13. Keyboard shortcuts

The shortcuts of the MyMath editor come in four kinds: **menu shortcuts** (shown beside the menu items) · **template shortcuts** (insert a structure directly) · **two-step shortcuts** (first choose a family, then choose the symbol with the next key) · and **editing helpers**.

shortcut cheat sheet

×

insert structure (§6.3)

Ctrl+F

Fraction

Ctrl+R

Square root

Ctrl+Shift+R

general root

Ctrl+H

superscript

Ctrl+L

Subscript

Ctrl+J

Sub/superscript

Ctrl+I

integral

Ctrl+Shift+S

sum

Ctrl+9 / Ctrl+0

delimiters / brackets

Ctrl+Shift+9

Braces

Ctrl+'

prime

Ctrl+Shift+'

double prime

Two-step shortcuts (§6.4-6.5) — also work on a Korean keyboard layout

Ctrl+G → letter

26 Greek letters (Shift = uppercase)

Ctrl+K → key

28 symbols

Ctrl+T → key

13 Korean-textbook notations

size (§5.5)

Ctrl+./ Ctrl+,

increase / decrease by 1pt

Ctrl+Shift+./ ,

steps of 0.1pt

edit (§5.2-§6.6)

Ctrl+Shift+V

detect format and paste

Shift+Enter

convert typed TeX to an equation

Ctrl+M

create clip

F2

create clip (selection)

Ctrl+E

style set

Ctrl+;

preferences

Alt+T

read aloud

Ctrl+Alt+Arrow

precision nudge

Tab

next placeholder

view (§5.3)

Ctrl+Y

show control characters

Ctrl+Shift+Y

placeholder hierarchy

Ctrl+Alt+Y

main baseline

Ctrl+D

redraw

file (§5.1)

Ctrl+N

new equation

Ctrl+S

Place into InDesign

Ctrl+Z / Ctrl+Shift+Z

undo / redo

Ctrl+Shift+C

copy LaTeX

With two-step shortcuts, pressing the first key shows the key map at the bottom of the screen. **physical key position**— it's read this way, so it works the same on a Korean keyboard.

close

Menu "Help > shortcut cheat sheet" — every assignment, family by family, on one screen.

They work with any keyboard layout

MyMath recognizes keys by their **physical position**. With a Korean input method active, pressing **Ctrl + G** would type "ㄱ" on the keyboard, but the program reads that position as **KeyG**. So you can use every shortcut **without switching input mode**. The two-step shortcuts and the view and template shortcuts all work the same way.

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13.1 File

Shortcut	What it does
Ctrl + N	New equation
Ctrl + O	Open (a .mymath equation file)
Ctrl + W	Close equation
Ctrl + Alt + S	Save
Ctrl + Shift + S	Save as
Ctrl + S	Place in InDesign
Ctrl + Shift + E	Copy as... (LaTeX, MathML, AsciiMath and more)
Ctrl + P	Print preview · print
Ctrl + Q	Quit

Importing equation files, batch-converting equation files and saving as an image have no shortcut; run them from the "File" menu.

13.2 Edit

Shortcut	What it does
Ctrl + Z	Undo
Ctrl + Shift + Z	Redo
Ctrl + X	Cut
Ctrl + C	Copy
Ctrl + V	Paste
Ctrl + A	Select all
Ctrl + Shift + C	Copy LaTeX

Shortcut	What it does
Ctrl + Shift + V	Smart paste — works out the format of the clipboard contents by itself (LaTeX, AsciiMath, MathML, OMML, wiki, plain text) and pastes accordingly
Shift + Enter	Turn typed TeX into math. Works only when there is TeX text to convert on the canvas; otherwise it falls through to a line break
Ctrl + Enter	"Apply" in the LaTeX edit box (while view LaTeX is open)

13.3 Building equations — template shortcuts

Insert structures without taking your hands off the keyboard. After inserting, the cursor sits in the first empty slot. If something is selected, it goes inside the structure.

Shortcut	Inserts	Result
Ctrl + F	Fraction	$\frac{\square}{\square}$
Ctrl + R	Square root	$\sqrt{\square}$
Ctrl + Shift + R	nth root	$\sqrt[\square]{\square}$
Ctrl + H	Superscript	$\square^{\square}$
Ctrl + L	Subscript	$\square_{\square}$
Ctrl + J	Sub- and superscript	$\square_{\square}^{\square}$
Ctrl + I	Integral	$\int_{\square}^{\square} \square \, dx$
Ctrl + Shift + S	Sum	$\sum\limits_{\square}^{\square} \square$
Ctrl + 9	Parentheses	$\left(\square\right)$
Ctrl + 0	Square brackets	$\left[\square\right]$
Ctrl + Shift + 9	Braces	$\left\{\square\right\}$

Shortcut	Inserts	Result
Ctrl + '	Prime	$\square'$
Ctrl + Shift + '	Double prime	$\square''$
Ctrl + M	Matrix wizard	You choose the rows, columns and bracket type

Overlapping assignments

Ctrl + **Shift** + **S** is assigned to both "Save as" and "Sum", and **Ctrl** + **M** to both "insert matrix" and "create clip". The one written in the menu wins. For a sum, use Σ **stacked** in the "Korean notation" palette or **Ctrl** + **T** → **S**; for creating a clip, use **F2**.

13.4 Format · size

Shortcut	What it does
Ctrl + B	Bold
Ctrl + Shift + I	Italic
Ctrl + .	Font size up 1 pt
Ctrl + ,	Font size down 1 pt
Ctrl + Shift + .	Font size up 0.1 pt
Ctrl + Shift + ,	Font size down 0.1 pt
Ctrl + Alt + S	Size dialog (type a value 1.0–127.0 pt · units pt/mm/inch/%)

13.5 View

Shortcut	What it does
Ctrl + Y	Show control characters on/off
Ctrl + Shift + Y	Show the input-box hierarchy

Shortcut	What it does
Ctrl + Alt + Y	Show the main baseline — for checking vertical alignment by eye
Ctrl + D	Redraw
Menu "View"	Zoom in / zoom out / actual size (the operating system's standard keys)

The remaining view items — boundaries, sub-baselines, center line, empty input boxes, precision-nudged parts and so on — are switched on and off under menu "View > view settings".

13.6 Other

Shortcut	What it does
Ctrl + /	Palette search — find a symbol by name, choose with ↑ ↓ and insert with Enter
F2	Create clip — saves the selection if there is one, otherwise the whole equation
Ctrl + E	Open Preferences (the style set group is at the top)
Ctrl + ;	Open Preferences
Alt + T	Read aloud — reads only the selection if there is one
Ctrl + Alt + ↑ ↓ ← →	Precision nudge — moves the selected part by the nudge step (default 0.5 pt)
Tab	Go to the next slot. With Eastern chosen in Preferences, the denominator comes first inside a fraction
Esc	Cancel a two-step shortcut (when you change your mind after the first key)

13.7 Two-step shortcuts

The first key chooses the family; the key you press next chooses the item. **Pressing the first key brings up the assignment table at the bottom of the screen, so there is nothing to memorize.**

Esc cancels, and pressing a key with no assignment inserts nothing and tells you so.

First key	Family	Then press	Items
Ctrl + G	Greek letters	A letter (with Shift = capital)	26
Ctrl + K	Symbols	A key	28
Ctrl + T	Korean textbook notation	A key	13

Turning them all off and on

To stop using two-step shortcuts altogether, untick **Use Magic shortcuts** on the "Help" screen. It is on by default.

Ctrl+G — 26 Greek letters

Lowercase as is; capitals with **Shift**. For letters that have no capital form here, **Shift** still gives the lowercase letter.

Key	Lowercase	Shift (capital)	Name
A	α	—	<code>\alpha</code>
B	β	—	<code>\beta</code>
G	γ	Γ	<code>\gamma</code> / <code>\Gamma</code>
D	δ	Δ	<code>\delta</code> / <code>\Delta</code>
E	ϵ	—	<code>\epsilon</code>
V	ε	—	<code>\varepsilon</code> (the other form of epsilon)
Z	ζ	—	<code>\zeta</code>
H	η	—	<code>\eta</code>
Q	θ	Θ	<code>\theta</code> / <code>\Theta</code>
I	ι	—	<code>\iota</code>

Key	Lowercase	Shift (capital)	Name
K	κ	—	<code>\kappa</code>
L	λ	Λ	<code>\lambda</code> / <code>\Lambda</code>
M	μ	—	<code>\mu</code>
N	ν	—	<code>\nu</code>
X	ξ	Ξ	<code>\xi</code> / <code>\Xi</code>
O	$\omicron$	—	<code>\omicron</code>
P	π	Π	<code>\pi</code> / <code>\Pi</code>
R	ρ	—	<code>\rho</code>
S	σ	Σ	<code>\sigma</code> / <code>\Sigma</code>
T	τ	—	<code>\tau</code>
U	υ	Υ	<code>\upsilon</code> / <code>\Upsilon</code>
F	ϕ	Φ	<code>\phi</code> / <code>\Phi</code>
J	φ	—	<code>\varphi</code> (the other form of phi)
C	χ	—	<code>\chi</code>
Y	ψ	Ψ	<code>\psi</code> / <code>\Psi</code>
W	ω	Ω	<code>\omega</code> / <code>\Omega</code>

The keys with a capital form are **G D Q L X P S U F Y W** — 11 in all. A space is added after each Greek letter so that it does not run into the next character.

Ctrl+K — 28 symbols

The assignments default to Korean textbook notation. Parallel is available in both forms, the international $\parallel$ and the Korean $\parallel$, on separate keys.

Key	Symbol	Meaning	Command
,	$\leq$	Less than or equal	<code>\le</code>
.	$\geq$	Greater than or equal	<code>\ge</code>
/	$\neq$	Not equal	<code>\ne</code>
=	$\equiv$	Congruent (Korean notation)	<code>\equiv</code>
S	$\sim$	Similar (Korean notation)	<code>\backsim</code>
P	$\pm$	Plus-minus	<code>\pm</code>
M	$\mp$	Minus-plus	<code>\mp</code>
T	$\times$	Times	<code>\times</code>
D	$\div$	Divide	<code>\div</code>
E	$\in$	Element of	<code>\in</code>
U	$\cup$	Union	<code>\cup</code>
I	$\cap$	Intersection	<code>\cap</code>
C	$\subset$	Subset	<code>\subset</code>
R	$\rightarrow$	Arrow	<code>\to</code>
A	$\uparrow$	Up arrow	<code>\uparrow</code>
O	∂	Partial derivative	<code>\partial</code>
N	∞	Infinity	<code>\infty</code>
L	$\parallel$	Parallel (international notation)	<code>\parallel</code>
K	//	Parallel (Korean notation)	<code>\mathbin{/\!/}</code>
V	$\perp$	Perpendicular	<code>\perp</code>

Key	Symbol	Meaning	Command
G	$\angle$	Angle	<code>\angle</code>
H	$\triangle$	Triangle	<code>\triangle</code>
3	$\therefore$	Therefore	<code>\therefore</code>
4	$\because$	Because	<code>\because</code>
8	$\cdot$	Middle dot (vector dot product)	<code>\cdot</code>
0	$^\circ$	Degree	<code>^{\circ}</code>
;	$\cdots$	Dots	<code>\cdots</code>
'	$'$	Prime	<code>\prime</code>

Ctrl+T — 13 Korean textbook notation structures

Structures that are tedious to build by hand are inserted complete with their empty slots. After inserting, move between the slots with `Tab` and fill them in.

Key	Inserts	Result
P	Permutation ${}_nP_r$	<code>\mathrm{P}_{\square}</code>
C	Combination ${}_nC_r$	<code>\mathrm{C}_{\square}</code>
H	Combination with repetition ${}_nH_r$	<code>\mathrm{H}_{\square}</code>
D	Repeating decimal	<code>0.\dot{\square}\dot{\square}</code>
A	Sequence	<code>\{a_{\square}\}</code>
V	Vector	<code>\overrightarrow{\square}</code>
L	Line segment	<code>\overline{\mathrm{\square}}</code>
R	Line	<code>\overleftrightarrow{\mathrm{\square}}</code>
O	Arc	<code>\overset{\frown}{\mathrm{\square}}</code>

Key	Inserts	Result
S	Sum (limits stacked)	$\sum\limits_{\square}^{\square}$
M	Limit (condition below)	$\lim\limits_{\square \rightarrow \square}$
T	Hangul proviso	$\quad \text{(단, \square)}$
F	Korean fraction	$\dfrac{\text{\square}}{\text{\square}}$

13.8 Assigning shortcuts on the InDesign side

The MyMath plugin registers **two commands** with InDesign. Assign the keys you like to them in InDesign's keyboard shortcuts dialog, and you can open the editor from the keyboard alone, without clicking the panel button.

Command name	What it does
New Equation	Opens the editor to build a new equation
Edit Selected Equation	Loads the selected equation into the editor for re-editing

- 1 Open **Edit > Keyboard Shortcuts** in InDesign.
- 2 The "Default" set cannot be changed directly, so make a copy with **[New Set]**.
- 3 Under Product Area choose the **plugins** group, and find **New Equation** or **Edit Selected Equation** in the list.
- 4 Click in the "New Shortcut" box and press the key you want (if another command already uses it, its name is shown just below).
- 5 Save with **[Assign]** → **[OK]**.

Limits on the InDesign side

Adding a button to the InDesign toolbar, extending the right-click menu, and opening the editor by double-clicking an equation are not offered by the current plugin technology (UXP). Instead, the large **[Edit Equation]** button in the panel (which recognizes the selected equation and re-edits it) and the shortcut assignment above do the same job in a single action.

The shortest route

For a short equation you don't even need to open the editor. Type $\frac{1}{2}$, x^2 , $\sqrt{2}$ and the like in the panel's **quick-insert** box and press **Enter** : it goes straight in at the cursor.

14. Troubleshooting

Install and connection

Symptom	Fix
[Plugins] → MyMath is missing from the InDesign menu	① Check that InDesign is 18.5 or later (Help → About InDesign) ② Quit InDesign completely and start it again ③ If the installer said the plugin could not be added, run the installer once more
A permission request appears when I click [Edit Equation]	That is normal. Tick [Remember my choice] and click [Allow] — you only do this once (2.3)
[Edit Equation] does not open the editor window	You may have clicked [Block] in the permission request. Start MyMath Editor from the desktop yourself and the panel connects straight away. Keeping the editor open while you work is also the fastest way
The panel says the exchange folder is not set	Normally it connects by itself. The reason for the failure is shown after the message; check it, then use Folder [Change] under "Connection settings" in the panel to pick <code>Documents\MyMath\exchange</code> once. It won't ask again

Placing equations

Symptom	Fix
Body text vanished from the screen after placing an equation	Click [Redraw view] in the panel's "Document" section. It recomposes the text and redraws the screen. (The text was never deleted; it is a screen refresh problem)

Symptom	Fix
The equation landed on the page by itself instead of inside the line	Check that the text cursor was in the text before placing. With no cursor, the equation is placed on the page
I used quick insert but the editor opened with a note about an "empty slot"	The equation has an unfilled slot (□). Fill it in the editor, then [Id InDesign]
The equation sits too high or too low in the line	Select the equation and adjust it with [▲][▼] under "Vertical offset" in the panel. [0] puts it back
Only the lines with equations have wider leading	A tall equation has increased the line height. Set the paragraph's leading to a fixed value and the page comes out even

Batch operations

Symptom	Fix
The \$...\$ conversion finds nothing	① If the scope is "selected frame" and there is no cursor, you only get a hint — put the cursor in, or switch to "whole document" ② Check that each  has its partner on the same line
[Re-render all equations] says no equations were found	Check with [Count equations] first. If it says 0, this document has no MyMath equations
A batch operation never finishes	Check that the editor window is open. If there is no response for 10 minutes, the operation stops automatically
The equation list does not show in the editor	Scroll down the editor's sidebar to the "document equations" section. The list appears automatically when you click [Send list to editor] in the panel

The editor

Symptom	Fix
The editor closed suddenly	Open it again and a bar appears saying "The previous edit ended abruptly" . Click [restore]
Two editors open	They don't. If one is already open, that window comes to the front
I see red text in the equation	It marks a mistake in the equation's syntax. Delete that part and build it again, or check the source with [view LaTeX] in the ribbon
Hangul looks broken inside an equation	Try another font under Preferences → "Korean font for text in equations"

Output

Symptom	Fix
Equations look heavy and clotted in the PDF	Check whether "print color" in Preferences is set to RGB. For print, K100 is the default
The printer asks for the fonts	Equations use no fonts. Send the body text fonts only
A link warning appears when I reopen the document	Equations are inside the document and have no links. It may be a link problem with some other image

If it still doesn't work — the log files

The panel keeps its own record of its start-up steps and errors. Send these files along when you ask for help and the cause can be found right away.

Send them to: uibsee@hanmail.net or GitHub Issues

File	Location
<code>panel-boot.log</code>	The <code>PluginData</code> folder under
	<code>%APPDATA%\Adobe\UXP\PluginsStorage\IDSN</code>
<code>autoconnect-diag.json</code>	(paste the first part into the address bar of File Explorer and browse from there)

15. What it cannot do — honestly

InDesign does not open certain features to plugins, so the following are **impossible in principle**. We have provided another way to get there instead.

Not possible	Use this instead
Double-clicking an equation to edit it	Click the equation → [Edit Equation] in the panel (one extra click)
Adding a button to the InDesign toolbar	The large [Edit Equation] button in the panel
Adding items to the equation's right-click menu	In InDesign, [Edit → Keyboard Shortcuts] lets you assign your own shortcuts to the MyMath commands

InDesign version

MyMath runs only in **InDesign 18.5 (August 2023) or later**. Earlier versions have no plugin-panel feature at all.

Frequently asked questions

Does it work on a Mac?

The editor is prepared so that it can be built for Mac, but this has not been built or verified yet. For now only Windows is confirmed.

What if a document with equations is opened on a computer without MyMath?

Equations are inside the document as vectors, so they **display and print as they are**. To *edit* an equation on that computer, however, MyMath must be installed.

Can several people work on the same document?

Yes. To keep typesetting consistent, pass around a style set file; to share frequently used snippets, pass around the clips folder.

Where is the equation source stored?

As plain LaTeX text in the **label** of each equation frame. With the document file alone you can always recover the source, and no sidecar files are created.

Appendix. The complete palette list

The palette has **28 families · 646 items**. Click a family button in the ribbon and the items of that family open on one screen (the basic items and the "more" items appear together). Hover over a button and the number of items is shown, as in [Greek \(43 items\)](#).

Only "matrix" is different

The other families open a list of items, but the **matrix** button opens a **wizard**. The "Presets" buttons at the top of the wizard are the 14 items of this family (see section 6.7).

A.1 The families at a glance

#	Family	Icon	Basic	More	Total	Typical items
1	Korean notation	한	12	20	32	${}_nP_r$ · ${}_nC_r$ · repeating decimal · $\{a_n\}$ · $\sim$ similar · $\equiv$ congruent · // parallel · $\rightarrow AB$ vector
2	Fraction	—	11	6	17	a/b · display fraction · small fraction · slashed · continued fraction · binomial coefficient · mixed number
3	Radical	$\sqrt{}$	4	0	4	$\sqrt{x}$ · $^n\sqrt{x}$ · $^3\sqrt{x}$ · $^4\sqrt{x}$
4	Script	x^2	12	5	17	x^2 · x_2 · both · prescript · prime · evaluation bar · substack
5	Delimiters	(.)	8	8	16	() [] { } · absolute value · norm · angle brackets · floor · ceiling · $\mathbb{W}big \sim \mathbb{W}Bigg$
6	Integral	$\int$	24	0	24	$\int$ · $\int_a^b$ · $\iint$ · $\iiint$ · $\iiiii$ · $\oint$ · $\oiint$ · $\oiiint$ · dx · dV · dA · ds
7	Sum	$\sum$	8	0	8	$\sum$ · $\sum_{i=1}^n$ · $\sum_{n=0}^{\infty}$ · double sum · multiple conditions

#	Family	Icon	Basic	More	Total	Typical items
8	Product	$\prod$	11	0	11	$\prod \cdot \amalg \cdot \cup \cdot \cap \cdot \oplus \cdot \otimes \cdot \odot$
9	Limit	$\lim$	11	0	11	$x \rightarrow a \cdot x \rightarrow 0 \cdot x \rightarrow \infty \cdot$ one-sided limits $\cdot$ limsup $\cdot$ liminf $\cdot$ sup $\cdot$ inf
10	Derivative	$\frac{d}{dx}$	11	0	11	$df/dx \cdot d^2f/dx^2 \cdot d/dx \cdot \dot{f} \cdot \ddot{f} \cdot f' \cdot f^{(n)}$
11	Partial derivative	∂	13	0	13	$\partial f / \partial x \cdot$ second-order and mixed partials $\cdot \nabla \cdot \nabla^2 \cdot \nabla \cdot \nabla \times \cdot \Delta$
12	Matrix (wizard)	$\prod$	14	0	14	2×2–5×5 $\cdot$ square brackets $\cdot$ determinant $\cdot$ cases $\cdot$ aligned equations $\cdot$ row and column vectors $\cdot$ augmented matrix
13	Function	$\sin$	8	27	35	$\sin \cos \tan \cdot \log \ln \exp \cdot$ inverse trigonometric $\cdot$ hyperbolic $\cdot$ det $\cdot$ dim $\cdot$ ker $\cdot$ gcd $\cdot$ mod
14	Accents	$\hat{x}$	12	25	37	$\hat{x} \cdot \bar{x} \cdot \tilde{x} \cdot \dot{x} \cdot \rightarrow x$ vector $\cdot$ overbrace $\cdot$ cancel strokes $\cdot$ 8 typefaces $\cdot \text{\texttt{Wtext}}$
15	Greek	α	11	32	43	24 lowercase $\cdot$ 11 capitals $\cdot \aleph \cdot \beth$
16	Relation	$\leq$	13	24	37	$\leq \geq \neq \approx \cdot \equiv$ congruent $\cdot \sim$ similar $\cdot //$ parallel $\cdot \perp$ perpendicular $\cdot \propto \cdot \ll \gg$
17	Operator	$\pm$	10	18	28	$\pm \mp \times \div \cdot * \oplus \otimes \circ \bullet \boxplus \boxminus \boxtimes \cdot \wedge \vee \neg$
18	Arrow	$\rightarrow$	12	18	30	$\rightarrow \leftarrow \uparrow \downarrow \leftrightarrow \Rightarrow \Leftarrow \Leftrightarrow \mapsto \cdot$ labeled arrows $\cdot$ long arrows $\cdot$ diagonals
19	Sets/logic	$\in$	12	30	42	$\in \notin \subset \supset \cup \cap \emptyset \forall \exists \cdot \therefore \because \cdot \mathbb{R} \mathbb{N} \mathbb{Z} \mathbb{Q} \mathbb{C} \cdot \wedge \vee \neg \Rightarrow \Leftrightarrow$

#	Family	Icon	Basic	More	Total	Typical items
20	Other	∞	12	28	40	$\infty \partial \nabla \hbar \ell \wp \cdot ^\circ ' \cdot \dots \dots : \ddots \cdot b$ $\# \cdot \dagger \ddagger \cdot$ currency and card-suit symbols
21	Frame		7	0	7	$\mathbb{W}\text{boxed} \cdot \mathbb{W}\text{fbox} \cdot \mathbb{W}\text{framebox} \cdot$ color box $\cdot$  end of proof
22	Space	$\sqcup$	13	0	13	$\mathbb{W}, \mathbb{W}: \mathbb{W}; \mathbb{W}! \cdot \mathbb{W}\text{quad} \mathbb{W}\text{qqquad} \cdot$ $\mathbb{W}\text{hspace} \mathbb{W}\text{vspace} \cdot$ 2 dashes
23	Shape	$\triangle$	12	9	21	$\triangle \blacktriangle \nabla \blacktriangledown \triangleleft \triangleright \cdot \bigcirc \bullet \square \blacksquare$ $\diamond \blacklozenge \cdot \angle \propto \nlessgtr \cdot \cap \cup$
24	Digit	$\frac{1}{2}$	11	20	31	$\frac{1}{2} \frac{1}{3} \frac{2}{3} \frac{1}{4} \frac{3}{4} \frac{1}{5} \frac{1}{6} \frac{1}{8} \frac{3}{8} \frac{5}{8} \frac{7}{8} \cdot$ superscript 0–9 $\cdot$ subscript 0–9
25	Align $\cdot$ equations	$\equiv$	12	17	29	align $\cdot$ gather $\cdot$ cases $\cdot$ split $\cdot$ line break $\cdot$ alignment marker $\cdot$ $\mathbb{W}\text{hline} \cdot \mathbb{W}\text{displaystyle}$
26	Template		12	36	48	quadratic formula $\cdot$ Pythagoras $\cdot$ definition of the derivative $\cdot$ normal distribution $\cdot$ 4 kinds of column arithmetic $\cdot$ chemical formulas $\cdot$ units

#	Family	Icon	Basic	More	Total	Typical items
Font Aa	10	8	18	italic · uprig ht · bold · bold italic · sans serif · mon ospa ce · black boar d bold · script · frakt ur · Kore an text · NZQ RC · small er · large r		

#	Family	Icon	Basic	More	Total	Typical items
Color 	7	2	9	red · blue · gree n · oran ge · purpl e · gray · black · yello w back grou nd · bord ered box		
Total			313	333	646	

Typefaces and colors have two routes

To insert a frame at the cursor, choose from the "font" and "color" families; to change something already written, it is shorter to select it by dragging and use the control bar above the canvas (5.3). To manage the same color across a whole document, use  color styles (section 6.10).

A.2 "Korean notation" — all 32 items

This family is collected from the <Terms and Symbols> lists of the Korean Ministry of Education notice [Annex 8] *Mathematics Curriculum*. It gathers in one place the notations that **differ from international practice** or are **hard to build by hand**. You will find it in the first group of the ribbon's top row, "Korean textbook".

Korean notation
close X

${}_nP_r$	${}_nC_r$	${}_nH_r$	${}_n\Pi_r$	0.12̄	0.3̄	7.215̄	$\{a_n\}$	$\backsimeq$	$\equiv$	//	$\rightarrow AB$	$\leftrightarrow AB$	
$\rightarrow AB$ ray	$\overline{AB}$	$\cap AB$	$\cap AB$ wide	$\log N$	$\log_a N$	$\ln x$	$A \subset B$	$A - B$	A^C	$\sim p$			
$\times$	$\div$	Σ stacked	under lim	$(\frac{1}{2}, \dots)$	Korean fraction		$\{x \mid \dots\}$	$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$					

Click an item = insert into canvas + close the dialog · ESC or click outside = close

The "Korean notation" family

Item	LaTeX	Description
${}_nP_r$	<code>\{}_n\mathrm{P}\{}_r</code>	Permutation — the P is upright
${}_nC_r$	<code>\{}_n\mathrm{C}\{}_r</code>	Combination
${}_nH_r$	<code>\{}_n\mathrm{H}\{}_r</code>	Combination with repetition
${}_n\Pi_r$	<code>\{}_n\mathrm{Pi}\{}_r</code>	Permutation with repetition
0.12̄	<code>0.\dot{ } \}\dot{ } { }</code>	Repeating decimal — two digits
0.3̄	<code>0.\dot{ } { }</code>	Repeating decimal — one digit
7.215̄	<code>\dot{ } { } { } \dot{ } { }</code>	Repeating decimal — three digits or more. Dots go on the first and last digits only; the middle is left bare
$\{a_n\}$	<code>\{a_{\mathrm{n}}\}</code>	Sequence — an item because braces typed as is simply disappear
$\backsimeq$	<code>\backsim</code>	Similar. <code>\sim</code> ($\sim$) is a different character , mirrored left to right
$\equiv$	<code>\equiv</code>	Congruent — where Korea parts from the international $\cong$
//	<code>\mathbin{/\!/}</code>	Parallel — printed as two slashes
$\rightarrow AB$	<code>\overrightarrow{ }</code>	Vector — a long arrow covering all the letters

Item	LaTeX	Description
$\leftrightarrow AB$	<code>\overleftrightarrow{\mathrm{ }}{ }</code>	Line
$\rightarrow AB$ ray	<code>\overrightarrow{\mathrm{ }}{ }</code>	Ray
$\overline{AB}$	<code>\overline{\mathrm{ }}{ }</code>	Line segment
$\frown AB$	<code>\overset{\frown}{\mathrm{ }}{ }</code>	Arc — a small $\frown$, closer to the textbook look
$\overparen{AB}$ wide	<code>\overparen{\mathrm{ }}{ }</code>	Arc — a wide arch
$\log N$	<code>\log</code>	Common logarithm — omitting the base is the formal style
$\log_a N$	<code>\log_{a}</code>	General logarithm
$\ln x$	<code>\ln</code>	Natural logarithm — not <code>\log_e</code>
$A \subset B$	<code>\subset</code>	Subset — $\subseteq$ is not in the list
$A - B$	<code>-</code>	Set difference — not <code>\setminus</code>
A^C	<code>^{C}</code>	Complement — a capital C
$\sim p$	<code>\sim</code>	Negation — not <code>\neg</code>
$\times$	<code>\times</code>	Multiplication — $\times$ rather than $\cdot$ even in high school
$\div$	<code>\div</code>	Division
$\sum$ stacked	<code>\sum\limits_{ }^{ }</code>	Sum — limits above and below even inline
under lim	<code>\lim\limits_{ } \to</code>	Limit — the condition below even inline
(단, ...)	<code>\quad \text{(단,)}</code>	A proviso in Korean ("provided that...")

Item	LaTeX	Description
Korean fraction	<code>\dfrac{\text{ }}{\text{ }}</code>	The (natural number)÷(natural number) form
$\{x \mid \dots\}$	<code>\{ \mid \text{ } \}</code>	Set-builder notation
각 $\rceil \sqsubset \sqsupset$	<code>\text{각 }</code>	Elementary school — vertices named with Korean consonants, a notation that does not use the $\angle$ sign

They look alike but are different characters

$\sim$ (similar, `\backsim`) and $\simeq$ (`\sim`) are two different characters, mirrored left to right. The "relation" family contains both, and each item's name says which one it is. The same goes for $\equiv$ and $\cong$, and for $\parallel$ and $\llcorner$.

$${}_5P_3 = 60 \quad \triangle ABC \sim \triangle DEF$$

Similar $\sim$ · parallel $\parallel$ · vector $\rightarrow$ AB

$$7.\dot{2}1\dot{5} \quad 0.\dot{1}\dot{2}$$

Repeating decimal — dots on the first and last digits only

A.3 "Greek" — 43 items

Greek

close X

α	β	γ	δ	θ	λ	μ	π	σ	φ	ω	ε	ζ	η	ι	κ	ν	ξ
ο	ρ	τ	υ	χ	ψ	ε	θ	φ	ω	ε	ς	Γ	Δ	Θ	Λ	Ξ	Π
Σ	Υ	Φ	Ψ	Ω	Ν	Ξ											

Click an item = insert into canvas + close the dialog · ESC or click outside = close

The "Greek" family

Group	Count	Items
Lowercase (basic)	11	$\alpha \beta \gamma \delta \theta \lambda \mu \pi \sigma \varphi \omega$
Lowercase (more)	19	$\varepsilon \zeta \eta \iota \kappa \nu \xi \omicron \rho \tau \upsilon \chi \psi \epsilon \vartheta \phi \varpi \varrho \varsigma$
Capitals	11	$\Gamma \Delta \Theta \Lambda \Xi \Pi \Sigma \Upsilon \Phi \Psi \Omega$
Hebrew letters	2	$\aleph \beth$

With **Ctrl+G** followed by a letter you can insert 26 of them directly — **A** → α , **B** → β , **G** → γ , **D** → δ , **Q** → θ , **L** → λ , **M** → μ , **P** → π , **S** → σ , **F** → φ , **W** → ω . Hold **Shift** as well for the capital ($\Gamma \Delta \Theta \Lambda \Xi \Pi \Sigma \Upsilon \Phi \Psi \Omega$).

A.4 "Relation" — 37 items

relation

close X

$\leq$	$\geq$	$\neq$	$\approx$	$\equiv$	$\sim$	$\simeq$	$\cong$	$\doteq$	$\propto$	$\ll$	$\gg$	$\prec$	$\preccurlyeq$	$\succ$	$\succcurlyeq$	$\lessgtr$	$\lessapprox$
$\nlessgtr$	$\nlessapprox$	$\nsubseteq$	$\nsupseteq$	$\nsubsetneq$	$\nsupsetneq$	$\napprox$	$\ncong$	$\ndoteq$	$\npropto$	$\nll$	$\nlg$	$\nprec$	$\npreccurlyeq$	$\nsucc$	$\nsucccurlyeq$	$\nlessgtr$	$\nlessapprox$
$\div$																	

Click an item = insert into canvas + close the dialog - ESC or click outside = close

The "relation" family — Korean and international notation side by side

Group	Items
Inequalities · equalities	$\leq \geq \neq \approx \simeq \div \ll \gg \lessgtr \lessapprox \prec \succ \preccurlyeq \succcurlyeq$
Similar · congruent	$\sim$ (Korean) · $\sim$ · $\equiv$ (Korean) · $\cong$ (international)
Parallel · perpendicular	$//$ (Korean) · $\parallel$ (international) · $\perp$
Order relations	$< \preccurlyeq > \succcurlyeq \sqsubseteq \sqsupset \subseteq \supseteq$

Group	Items
Other	$\propto \vdash \models \triangleq \neg$

A.5 "Arrow" — 30 items

arrow

close X

$\rightarrow$	$\leftarrow$	$\uparrow$	$\downarrow$	$\leftrightarrow$	$\Rightarrow$	$\Leftarrow$	$\Leftrightarrow$	$\mapsto$	$\xrightarrow{n}$	$\xleftarrow{n}$	$\xleftrightarrow{n}$	$\rightarrow$	$\leftarrow$	$\leftrightarrow$	$\Rightarrow$	$\Leftarrow$
$\mapsto$	$\nearrow$	$\searrow$	$\swarrow$	$\nwarrow$	$\Uparrow$	$\Downarrow$	$\Updownarrow$	$\Rrightarrow$	$\curvearrowright$	$\curvearrowleft$	$\rightarrow$	$\rightarrow$				

Click an item = insert into canvas + close the dialog - ESC or click outside = close

The "arrow" family

Group	Items
Basic	$\rightarrow \leftarrow \uparrow \downarrow \leftrightarrow \Rightarrow \Leftarrow \Leftrightarrow \mapsto$
Labeled	<code>\xrightarrow{ }</code> · <code>\xleftarrow{ }</code> · <code>\xRrightarrow{ }</code> — text sits on top of the arrow
Long arrows	$\longrightarrow \longleftarrow \longleftrightarrow \Longrightarrow \Longleftarrow \mapsto$
Diagonals	$\nearrow \searrow \swarrow \nwarrow$
Double · hooks · harpoons	$\Uparrow \Downarrow \Updownarrow \Rrightarrow \hookrightarrow \hookleftarrow \rightarrowtail$

A.6 "Shape" — 21 items

shape

close X





Click an item = insert into canvas + close the dialog - ESC or click outside = close

The "shape" family

Group	Items
Triangles	      
Circles · squares · diamonds	       
Angles	  
Arcs	 

A.7 "Template" — 48 items

This family holds complete, ready-made equations. It is in the "Format" group of the ribbon's bottom row.

Group	Count	Items
Basic (shown right away)	12	Quadratic formula · Pythagoras · definition of the derivative · fundamental theorem of calculus · Gaussian integral · Euler's identity · Bayes' theorem · mean · variance · standard deviation · trigonometric identity · law of cosines
Series · transforms	4	Taylor · Maclaurin · Fourier transform · Laplace transform
Linear algebra	7	Cauchy–Schwarz · triangle inequality · determinant 2×2 and 3×3 · matrix product · dot product · cross product
Complex numbers	2	Euler's formula · De Moivre
Physics	8	Schrödinger · Maxwell's 4 equations · E=mc ² · F=ma · universal gravitation · Coulomb · ideal gas · entropy
Probability	3	Normal distribution · binomial distribution · expected value
Elementary column arithmetic	5	Long division · column addition · column subtraction · column multiplication · <code>\enclose{longdiv}</code>

Group	Count	Items
Chemistry · units	7	H ₂ O · CO ₂ · reaction · balanced reaction · °C · m/s ² · kg·m/s ²

Column arithmetic

Long division and column addition, subtraction and multiplication in elementary-school books need their digits lined up, which is tedious to build by hand. The "template" family has them with the digit alignment already done, so you only change the numbers.

A.8 "Space" — 13 items for touching up spacing

Item	Width	Where it is used
<code>\,</code>	3/18 em	The one used most — before <code>dx</code> and the like
<code>\:</code>	4/18 em	Medium
<code>\;</code>	5/18 em	Wide
<code>\!</code>	−3/18 em	Negative — for pulling things together
<code>\quad</code>	1 em	Between an equation and its proviso
<code>\qquad</code>	2 em	Very wide
<code>\</code> · <code>\sim</code> · <code>\enspace</code>	—	Normal space · non-breaking space · en width
<code>\hspace</code> · <code>\vspace</code>	As given	Type the pt value yourself
— · –	—	Em dash · en dash

Before inserting them one by one

If you keep touching up the same kind of spacing in equation after equation, then instead of inserting single spaces it is better to change the rule itself under **Ctrl+;** → **precision spacing**. You can set, in %, the spacing of fractions, scripts, big operators, delimiters, matrices and radicals, as well as the spacing around binary operators, relations and punctuation; the values are **saved with the style set** and carry over to your next job.

MyMath 0.25 · Free

The screenshots in this manual were captured automatically from the actual program.