

MAT_TAL_X symbol list

v 2.7.1

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Content

| | |
|---------------------------------------|----|
| Introduction..... | 2 |
| Browser and operating system..... | 2 |
| Important differences with LaTeX..... | 2 |
| Contact..... | 2 |
| Tutorial..... | 3 |
| Default shortcuts..... | 3 |
| Commands and operators..... | 4 |
| Mathematics..... | 5 |
| Unary and binary operators..... | 5 |
| Calculus..... | 7 |
| Relation..... | 8 |
| Delimiters..... | 10 |
| Logic..... | 10 |
| Geometry..... | 11 |
| Arrows..... | 11 |
| Fractions..... | 13 |
| Chemistry..... | 13 |
| Introduction..... | 13 |
| Symbols..... | 14 |
| Matrix..... | 14 |
| Greek letters..... | 15 |
| Hebrew letters..... | 16 |
| Fonts..... | 17 |
| Combining symbols..... | 18 |

| | |
|--------------------------------|----|
| Subscript and superscript..... | 19 |
| Chess & card games..... | 20 |
| Money and currency..... | 20 |
| Music..... | 21 |
| Box drawings..... | 21 |
| Other symbols..... | 21 |
| Space, line break, tab..... | 22 |
| Outside mathmode..... | 23 |

Introduction

Browser and operating system

If you are using Windows, MatTalX in Google Chrome works very well. However, on a Linux-based system, we recommend Firefox. MatTalX saves your work in progress, so you don't have to rewrite everything if you close the popup. As a Linux user, this feature works better on Firefox.

N.B. Every software renders unicode characters differently, which explains most bugs and weirdness.

Important differences with LaTeX

An important difference from LaTeX is that you can't "build" a symbol in MatTalX (see "Combining symbols" in the table of contents for nuance). As an example, $\stackrel{\text{def}}{=}$ is simply `\def` in MatTalX, but `\stackrel{\rm def}{=}` in LaTeX.

Since MatTalX converts commands into UTF characters. Some expressions are impossible to build. As an example, $x^{x^{x^x}}$ couldn't work since everything has to fit in a line. The same goes for $\frac{\frac{\frac{a}{b}}{c}}{d}$, which can't work. If you need an expression like that, you can write $x^{(x^{(x^x)})}$ and $((a/b)/c)/d$, respectively.

If you build your own command, you currently can't have command arguments. If you build an operator, you can only have a single one. More info under "Commands and operators".

Output:


$$\sum_x x^{x^{x^x}} \quad \text{vs} \quad \sum_x x^{(x^{(x^x)})}$$

Contact

If you find a bug or have any suggestion, please tell me via <https://github.com/samueleblanc/MatTalX/issues>

Tutorial

MatTalX is a simple extension; there are only four main buttons.

1. If you press **Convert**, the text written in the first area will be translated, and the output will appear in the second area.
2. If you press **Copy text**, the text of the second area will be automatically copied on your clipboard so you can paste and send it afterward.
3. If you press **Clear**, it will erase both areas.
4. If you hover over the question mark  you will be able to see this document under “Documentation”, the code under “Code (GitHub)”, and you can uncheck “Adjust spaces”.

With “Adjust spaces” checked

Input: $x > y \wedge y \geq 0 \implies x > 0$

Output: $x > y \wedge y \geq 0 \implies x > 0$

Input: $\Gamma(k) = \sum_{k=1} (2k^2 + 4)$

Output: $\Gamma(k) = \sum_{k=1} (2k^2 + 4)$

Input: $x \equiv_5 y$

Output: $x \equiv_5 y$

With “Mathematical font” checked, every character will be converted to its mathematical counterpart. For instance, $f(x) = y$ outputs $f(x) = y$. If you do not want that, you can uncheck the button. Please note that it will also affect the Greek alphabet since the letters alpha and beta will be α, β , and α, β with the button checked and unchecked, respectively.

Finally, the button “Math mode” unchecked requires the user to manually enter math mode, with “\$”, “\$\$”, and “\”. It is, therefore, useful if one wants to embed symbols in the text, and not only output various symbols.

Example with “Math mode” unchecked:

Input: Let $A \in M_{m \times n}(F)$ be a matrix over a field F

Output: Let $A \in M_{m \times n}(F)$ be a matrix over a field F

To write subscript or superscript characters, start with “_” or “^”, respectively. For instance, abc gives “ abc ” and $_{ijk}$ gives “ $_{ijk}$ ”.

Other commands starts with “\” (e.g. \subset gives “ \subset ”)

Default shortcuts

Alt+M opens and closes MatTalX

Alt+I copies the text in the first box (intput)

Alt+O copies the text in the second box (output)

Alt+C opens and closes the completion box

Commands and operators

In the settings, it is possible to build or modify commands. To do so, simply click “Build” under “Commands & Operators”.

There are four options.

Before reviewing them, it’s important to state that the general goal is to give the user more freedom over each command’s name. As stated above, it is currently impossible to have new commands with arguments, and operators take one and only one argument.

1. `\newcommand{Entry1}{Entry2}`

Entry1: The new name for the command.

Entry2: What this new command must output.

Example: `\newcommand{\coolHi}{\mathcal{H}\mathfrak{i}}`

Output: `\coolHi` → $\mathcal{H}\mathfrak{i}$

N.B. \newcommand does not work if the command name is already defined. In that case, use \renewcommand.

2. `\renewcommand{Entry1}{Entry2}`

Entry1: The new name for the command.

Entry2: What this new command must output.

Example: `\renewcommand{\a}{\alpha}`

Output: `\a` → α

N.B. \renewcommand could always be used instead of \newcommand. However, it is safer to use \newcommand if you don’t want to override existing commands.

3. `\DeclareMathOperator{Entry1}{Entry2}`

Entry1: The new name for the operator.

Entry2: What this new command must output, minus the argument.

Example: `\DeclareMathOperator{\Var}{\mathrm{Var}}`

Output: `\Var{X_i}` → $\mathrm{Var}[X_i]$

4. `\DeclareUnicodeCharacter{Entry1}{Entry2}`

Entry1: The new name for the command.

Entry2: The unicode value of the desired output.

Example: `\DeclareUnicodeCharacter{\HiraganaN}{\u3093}`

Output: `\HiraganaN` → ズ

Mathematics

Unary and binary operators

| | |
|---|-------------------------------------|
| <code>+</code> , <code>-</code> , <code>\dotminus</code> , <code>\times</code> | $+$, $-$, $\dot{-}$, \times |
| <code>\fracline</code> , <code>/</code> , <code>\div</code> , <code>\longdiv</code> | $/$, $/$, \div , $\overline{)}$ |
| <code>\divideontimes</code> , <code>\smashtimes</code> | \divtimes , $\smash{\times}$ |
| <code>\rtimes</code> , <code>\ltimes</code> | \rtimes , \ltimes |
| <code>\rthree</code> , <code>\lthree</code> | \prec , \succ |
| <code>#</code> | $\#$ |
| <code>!</code> | $!$ |
| <code>\neg</code> | \neg |

| | |
|---|---|
| <code>\sqrt[n]{x}</code> , <code>\sqrt{x}</code> | $\sqrt[n]{x}$, \sqrt{x} |
| <code>\prod</code> , <code>\sum</code> | \prod , \sum |
| <code>\cdot</code> , <code>\cdotp</code> , <code>\bullet</code> | \cdot , \cdot , \bullet |
| <code>\ast</code> , <code>\star</code> , <code>\circ</code> , <code>\diamond</code> | \ast , \star , \circ , \diamond |
| <code>\pm</code> , <code>\mp</code> | \pm , \mp |

| | |
|------------------|-------|
| <code>\wr</code> | \wr |
|------------------|-------|

| | |
|----------------------|-----------|
| <code>\bowtie</code> | \bowtie |
|----------------------|-----------|

| | |
|--|-----------------------------------|
| <code>\sin</code> , <code>\cos</code> , <code>\tan</code> | \sin , \cos , \tan |
| <code>\arcsin</code> , <code>\arccos</code> , <code>\arctan</code> | \arcsin , \arccos , \arctan |
| <code>\cot</code> , <code>\csc</code> , <code>\sec</code> | \cot , \csc , \sec |

| | |
|--|---|
| <code>\arccot</code> , <code>\arccsc</code> , <code>\arcsec</code> | <code>arccot</code> , <code>arccsc</code> , <code>arcsec</code> |
|--|---|

| | |
|--------------------------------------|------------------------------------|
| <code>\ln</code> , <code>\log</code> | <code>ln</code> , <code>log</code> |
|--------------------------------------|------------------------------------|

| | |
|-------------------------|-------------------|
| <code>\det</code> | <code>det</code> |
| <code>\rank</code> | <code>rank</code> |
| <code>\hermitian</code> | \dagger |

| | |
|--------------------|-------------------|
| <code>\grad</code> | <code>grad</code> |
| <code>\div</code> | <code>div</code> |
| <code>\curl</code> | <code>curl</code> |

| | |
|--|-------------------------------------|
| <code>\mod</code> , <code>\bmod</code> | <code>mod</code> , <code>mod</code> |
| <code>\pmod{n}</code> | $(\bmod n)$ |

| | |
|---|-----------------------------|
| <code>\cup</code> , <code>\cap</code> | \cup , \cap |
| <code>\sqcup</code> , <code>\sqcap</code> | \sqcup , \sqcap |
| <code>\Cup</code> , <code>\Cap</code> | \mathbb{U} , \mathbb{M} |
| <code>\sqCup</code> , <code>\sqCap</code> | \mathbb{W} , \mathbb{M} |
| <code>\cupplus</code> | \uplus |
| <code>\setminus</code> | \setminus |
| <code>\amalg</code> | \amalg |

| | |
|--|---------------------------------|
| <code>\oplus</code> , <code>\ominus</code> | \oplus , \ominus |
| <code>\otimes</code> , <code>\odot</code> , <code>\oslash</code> | \otimes , \odot , \oslash |
| <code>\ocirc</code> , <code>\bullet</code> , <code>\circ</code> | \odot , \bullet , \circ |

| | |
|---|-----------------------------|
| <code>\operp</code> , <code>\oparallel</code> , <code>\oeq</code> | $\perp, \mathbb{P}, \equiv$ |
| <code>\opluslhrim</code> , <code>\oplusrhrim</code> | \oplus, \oplus |
| <code>\otimeslhrim</code> , <code>\otimesrhrim</code> | \otimes, \otimes |
| <code>\boxplus</code> , <code>\boxminus</code> | \boxplus, \boxminus |
| <code>\boxtimes</code> , <code>\boxdot</code> | \boxtimes, \boxdot |

Calculus

| | |
|--|-------------------------------------|
| <code>\int</code> , <code>\iint</code> , <code>\iiint</code> , <code>\iiiiint</code> | $\int, \iint, \iiint, \iiiiint$ |
| <code>\oint</code> , <code>\oiint</code> , <code>\oiint</code> | \oint, \oiint, \oiint |
| <code>\intclockwise</code> | \int |
| <code>\ointclockwise</code> , <code>\ointctrcklockwise</code> | \oint, \oint |
| <code>\sqint</code> , <code>\timesint</code> | \sqint, \timesint |
| <code>\cupint</code> , <code>\capint</code> | \cupint, \capint |
| <code>\fint</code> | f |
| <code>\overbarint</code> , <code>\underbarint</code> | $\overline{\int}, \underline{\int}$ |

| | |
|---|----------------------------|
| <code>\sum</code> , <code>\osum</code> , <code>\sumint</code> | Σ, \mathbb{S}, \sum |
|---|----------------------------|

| | |
|--|-------------|
| <code>'</code> , <code>"</code> , <code>\tprime</code> | $', ", '''$ |
| <code>\partial</code> | ∂ |
| <code>\nabla</code> | ∇ |

| | |
|-------------------|--------|
| <code>\lim</code> | \lim |
|-------------------|--------|

Relation

| | |
|---|--|
| <code>=, \neq</code> | $=, \neq$ |
| <code>\equiv, \superequiv</code> | \equiv, \equiv |
| <code>\cong, \ncong</code> | $\cong, \not\cong$ |
| <code>\approx</code> | \approx |
| <code>\sim, \nsim, \simeq</code> | \sim, \simeq, \subseteq |
| <code>\doteq, \eqdot, \def, \quest</code> | $\doteq, \dot{=}, \stackrel{\text{def}}{=}, \stackrel{?}{=}$ |
| <code>\triangleq, \mqquest, \dotequiv</code> | $\triangleq, \stackrel{\text{m}}{=}, \dot{=}$ |
| <code>\coloneqq, \eqqcolon</code> | \coloneqq, \equiv |
| <code><, ></code> | $<, >$ |
| <code>\nless, \ngtr</code> | \nless, \ngtr |
| <code>\ll, \gg, \lll, \ggg</code> | \ll, \gg, \lll, \ggg |
| <code>\lquest, \rquest</code> | \lquest, \rquest |
| <code>\leq, \geq, \leqslant, \geqslant</code> | $\leq, \geq, \leqslant, \geqslant$ |
| <code>\nsim, \gnsim</code> | \nsim, \gnsim |
| <code>\napprox, \gnapprox</code> | \napprox, \gnapprox |
| <code>\lneq, \gneq, \lneqq, \gneqq</code> | $\lneq, \gneq, \lneqq, \gneqq$ |
| <code>\propto</code> | \propto |
| <code>∴, \colon, \because, \therefore</code> | $\therefore, \therefore, \because, \because$ |

| | |
|---|--------------------------------|
| <code>\prec, \succ, \nprec, \nsucc</code> | $\prec, \succ, \nprec, \nsucc$ |
| <code>\preceq, \succeq</code> | \preceq, \succeq |
| <code>\precneqq, \succneqq</code> | \precneqq, \succneqq |
| <code>\precnsim, \succnsim</code> | \precnsim, \succnsim |
| <code>\precnapprox, \succnapprox</code> | $\precnapprox, \succnapprox$ |

| | |
|---------------------------------------|--------------------------------|
| <code>\in, \ni, \notin</code> | \in, \ni, \notin |
| <code>\subset, \supset</code> | \subset, \supset |
| <code>\nsubset, \nsupset</code> | $\not\subset, \not\supset$ |
| <code>\subseteq, \supseteq</code> | \subseteq, \supseteq |
| <code>\nsubseteq, \nsupseteq</code> | $\not\subseteq, \not\supseteq$ |
| <code>\Subset, \Supset</code> | \Subset, \Supset |
| <code>\sqsubset, \sqsupset</code> | \sqsubset, \sqsupset |
| <code>\sqsubseteq, \sqsupseteq</code> | \sqsubseteq, \sqsupseteq |
| <code>\subsetplus, \supsetplus</code> | \subsetplus, \supsetplus |
| <code>\osubset, \osupset</code> | \osubset, \osupset |
| <code>\pitchfork, \toppitch</code> | \pitchfork, \toppitch |

| | |
|---------------------------------------|--|
| <code>\originalof, \imageof</code> | $\xrightarrow{\quad}, \xrightarrow{\quad}$ |
| <code>\multimap, \leftmultimap</code> | \multimap, \leftmultimap |
| <code>\uptack</code> | \intercal |

| | |
|--|---------------------------------------|
| <code>\triangleleft, \triangleright</code> | $\triangleleft, \triangleright$ |
| <code>\trianglelefteq, \trianglerighteq</code> | $\trianglelefteq, \trianglerighteq$ |
| <code>\ntriangleleft, \ntriangleright</code> | $\ntriangleleft, \ntriangleright$ |
| <code>\ntrianglelefteq, \ntrianglerighteq</code> | $\ntrianglelefteq, \ntrianglerighteq$ |

| | |
|-----------------------|------------|
| <code> , \nmid</code> | $, \nmid$ |
|-----------------------|------------|

| | |
|------------------------|-------------|
| <code>\emptyset</code> | \emptyset |
|------------------------|-------------|

| | |
|-------------------------|--------------|
| <code>\min, \max</code> | \min, \max |
|-------------------------|--------------|

Delimiters

| | |
|---|------------------------------------|
| $(,)$ | $(,)$ |
| <code>\lparenthesis, \rrparenthesis</code> | $(,)$ |
| $\{, \}$ | $\{, \}$ |
| <code>\lBrace, \rBrace</code> | $\{, \}$ |
| $[,]$ | $[,]$ |
| <code>\llbracket, \rrbracket</code> | \llbracket, \rrbracket |
| $ $ | $ $ |
| <code>\langle, \rangle</code> | \langle, \rangle |
| <code>\llangle, \rrangle</code> | \langle, \rangle |
| <code>\lceil, \rceil, \lfloor, \rfloor</code> | $\lceil, \rceil, \lfloor, \rfloor$ |

Logic

| | |
|--|--------------------------------|
| <code>\exists, \nexists, \exists !</code> | $\exists, \nexists, \exists !$ |
| <code>\land or \wedge, \lor or \vee</code> | \wedge, \vee |
| <code>\sqland, \sqlor</code> | \boxtimes, \boxplus |
| <code>\doublewedge, \doublevee</code> | \mathbb{A}, \mathbb{W} |
| <code>\curlywedge, \curlyvee</code> | \curlyand, \curlyor |
| <code>\forall</code> | \forall |
| <code>\invamp</code> | \nexists |

| | |
|---------------------------------------|---------------------------|
| <code>\vdash, \dashv, \nvDash</code> | \dashv, \vdash, \nvdash |
| <code>\Dashv, \VDash, \invDash</code> | \dashv, \vdash, \nvdash |
| <code>\dashV, \Vdash, \nVdash</code> | \dashv, \vdash, \nvdash |
| <code>\DashV, \VDash, \nVDash</code> | \dashv, \vdash, \nvdash |

| | |
|--|--|
| <code>\top</code> , <code>\bot</code> | \top , \perp |
| <code>\xor</code> , <code>\nand</code> , <code>\nor</code> | $\underline{\vee}$, $\overline{\wedge}$, $\overline{\vee}$ |

| | |
|--|-------------|
| <code>\qed</code> | ■ |
| <code>\blacksquare</code> , <code>\square</code> | ■, □ |
| <code>\lightning</code> , <code>\dbend</code> | ⚡, Σ |

Geometry

| | |
|---|--|
| <code>\parallel</code> , <code>\nparallel</code> , <code>\vvvert</code> , <code>\nvvvert</code> | \parallel , \nparallel , , |
| <code>\asymp</code> | \asymp |
| <code>\perp</code> , <code>\not{\perp}</code> , <code>\Perp</code> | \perp , \nperp , \Perp |
| <code>\angle</code> , <code>\rightangle</code> | \angle , \rightangle |
| <code>\measuredangle</code> , <code>\sphericalangle</code> | \sphericalangle , \sphericalangle |
| <code>\mid</code> or <code> </code> , <code>\mid</code> | $ $, \mid |
| <code>\between</code> | \between |

Arrows

| | |
|--|--------------------------------|
| <code>\leftarrow</code> , <code>\rightarrow</code> | \leftarrow , \rightarrow |
| <code>\longrightarrow</code> | \longrightarrow |
| <code>\leftrightharrow</code> | \leftrightarrow |
| <code>\uparrow</code> , <code>\downarrow</code> | \uparrow , \downarrow |
| <code>\updownarrow</code> | \updownarrow |
| <code>\nleftarrow</code> , <code>\nrightarrow</code> | \nleftarrow , \nrightarrow |
| <code>\nleftrightharrow</code> | \nleftrightarrow |
| <code>\Leftarrow</code> , <code>\Rightarrow</code> | \Leftarrow , \Rightarrow |

| | |
|--|-------------------------------|
| <code>\Leftrightarrow</code> , <code>\iff</code> | \Leftrightarrow, \iff |
| <code>\Longleftarrow</code> , <code>\implies</code> | $\Longleftarrow, \Rightarrow$ |
| <code>\Uparrow</code> , <code>\Downarrow</code> | \Uparrow, \Downarrow |
| <code>\Updownarrow</code> | \Updownarrow |
| <code>\nLeftarrow</code> , <code>\nRightarrow</code> | $\nLeftarrow, \nRightarrow$ |
| <code>\nLeftrightarrow</code> | \nLeftrightarrow |
| <code>\mapsto</code> | \mapsto |

| | |
|---|--|
| <code>\rightharpoonup</code> , <code>\rightharpoondown</code> | $\rightharpoonup, \rightharpoondown$ |
| <code>\leftharpoonup</code> , <code>\leftharpoondown</code> | $\leftharpoonup, \leftharpoondown$ |
| <code>\leftrightharpoons</code> , <code>\rightleftharpoons</code> | $\leftrightharpoons, \rightleftharpoons$ |
| <code>\upharpoonleft</code> , <code>\upharpoonright</code> | $\upharpoonleft, \upharpoonright$ |
| <code>\downharpoonleft</code> , <code>\downharpoonright</code> | $\downharpoonleft, \downharpoonright$ |

| | |
|---|--|
| <code>\twoheadleftarrow</code> , <code>\twoheadrightarrow</code> | $\twoheadleftarrow, \twoheadrightarrow$ |
| <code>\twoheaduparrow</code> , <code>\twoheaddownarrow</code> | $\twoheaduparrow, \twoheaddownarrow$ |
| <code>\leftleftarrows</code> , <code>\rightrightarrows</code> | $\leftleftarrows, \rightrightarrows$ |
| <code>\upuparrows</code> , <code>\downdownarrows</code> | $\upuparrows, \downdownarrows$ |
| <code>\leftrightsquigarrow</code> , <code>\rightleftsquigarrow</code> | $\leftrightsquigarrow, \rightleftsquigarrow$ |
| <code>\hookleftarrow</code> , <code>\hookrightarrow</code> | $\hookleftarrow, \hookrightarrow$ |
| <code>\looparrowleft</code> , <code>\looparrowright</code> | $\looparrowleft, \looparrowright$ |
| <code>\Lsh</code> , <code>\Rsh</code> | \Lsh, \Rsh |
| <code>\nwarrow</code> , <code>\nearrow</code> | \nwarrow, \nearrow |
| <code>\searrow</code> , <code>\swarrow</code> | \searrow, \swarrow |
| <code>\Lleftarrow</code> , <code>\Rrightarrow</code> | $\Lleftarrow, \Rrightarrow$ |

| | |
|--|--|
| <code>\leftarrowtail</code> , <code>\rightarrowtail</code> | \leftarrowtail , \rightarrowtail |
| <code>\leftsquigarrow</code> , <code>\rightsquigarrow</code> | \leftsquigarrow , \rightsquigarrow |
| <code>\leftrightsquigarrow</code> | \leftrightsquigarrow |
| <code>\circlearrowleft</code> , <code>\circlearrowright</code> | \circlearrowleft , \circlearrowright |
| <code>\curvearrowleft</code> , <code>\curvearrowright</code> | \curvearrowleft , \curvearrowright |
| <code>\tildeabovearrow</code> , <code>\tildebelowarrow</code> | \tildeabovearrow , \tildebelowarrow |
| <code>\equalabovearrow</code> | \equalabovearrow |

Fractions

| | |
|--|-------------------------------|
| <code>\frac{1}{2}</code> , <code>\frac*{1}{2}</code> | $\frac{1}{2}$, $\frac{1}{2}$ |
| <code>\frac{f(x)}{g(x)}</code> | $(f(x)/g(x))$ |

The difference between `\frac*{a}{b}` and `\frac{a}{b}` is that `\frac*` will first look for a single character fraction; if it doesn't exist, it will act as if you wrote `\frac` and output at least three characters (numerator, division, denominator).

Chemistry

Introduction

To write a chemistry equation, you can start by writing **!chem** as the first word of the text. It won't automatically turn every letter in italics or "math style" (i.e. $f \rightarrow f$ instead of f) and it won't add spaces around "`-`", "`=`", "`\equiv`", "`\equiv`" to allow the *drawing* of molecules.

ex:

Input: `!chem CO_{2}\longrightarrow O\above{:}\below{:}=C=O\above{:}\below{:}`

Output: $\text{CO}_2 \longrightarrow \ddot{\text{O}}=\text{C}=\ddot{\text{O}}$

Also, "`:`" is equivalent to "`\colon`" with `!chem`, if you want it to be the same as without "`!chem`", use "`\ratio`" instead.

Symbols

`-`, `=`, `\tbond`, `\qbond`

`-`, `=`, `\equiv`, `\equiv`

`\mddot` (or `:`) `F` `\above{.}` `\below{.}` `\mdot`

`:F:`

`\mddot` `Ca` `\longrightarrow` `Ca ^{2-}`

`:Ca \longrightarrow Ca^{2-}`

`\mdot` \approx `\cdot` and `\mddot` = `\colon`

`x\above{.}` = `\dot{x}` and `x\above{.}` = `\ddot{x}`

For arrows, see table of content.

Matrix

| | |
|-------------------|---|
| <code>\id1</code> | $[1]$ |
| <code>\id2</code> | $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ |
| <code>\id3</code> | $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$ |
| <code>\id4</code> | $\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$ |
| <code>\idn</code> | $\begin{bmatrix} 1 & 0 & \cdots & 0 \\ 0 & 1 & \cdots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \cdots & 1 \end{bmatrix}$ |

To make the matrix of your choice, write **!matrix** as the first word, and then write the one you want. As an example, “`\id2`” could be written as `!matrix [1,0][0,1]`

Other examples:

`!matrix ...`

| | |
|------------------------------------|---|
| <code>[a,b,c][d,e,f][g,h,i]</code> | $\begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix}$ |
| <code>[1,2,3][a,b,c]</code> | $\begin{bmatrix} 1 & 2 & 3 \\ a & b & c \end{bmatrix}$ |
| <code>[10,200,300][a,b,c-1]</code> | $\begin{bmatrix} 10 & 200 & 300 \\ a & b & c-1 \end{bmatrix}$ |

If you want symbols in the matrix, you could do

Input : `!matrix [2,3,\sigma][\frac{*}{1}{2}, 0,1]`

Output :

$$\begin{bmatrix} 2 & 3 & \sigma \\ \frac{1}{2} & 0 & 1 \end{bmatrix}$$

It is recommended to uncheck “Mathematical font”, since the automatic spacing will be better with the regular font.

Greek letters

| | |
|--|-----------------------------|
| <code>\Alpha, \alpha</code> | A, α |
| <code>\Beta, \beta</code> | B, β |
| <code>\Gamma, \gamma</code> | Γ, γ |
| <code>\Delta, \varDelta \delta</code> | Δ, Δ, δ |
| <code>\Epsilon, \epsilon, \varepsilon</code> | E, ϵ, ε |
| <code>\Zeta, \zeta</code> | Z, ζ |
| <code>\Eta, \eta</code> | H, η |
| <code>\Theta, \theta, \vartheta</code> | $\Theta, \theta, \vartheta$ |
| <code>\Iota, \iota</code> | I, ι |
| <code>\Kappa, \kappa, \varkappa</code> | K, κ, \varkappa |

| | |
|--|-----------------------------|
| <code>\Lambda, \lambda</code> | Λ, λ |
| <code>\Nu, \nu</code> | N, ν |
| <code>\Xi, \xi</code> | Ξ, ξ |
| <code>\Omicron, \omicron</code> | O, o |
| <code>\Pi, \pi, \varpi</code> | Π, π, ϖ |
| <code>\Rho, \rho, \varrho</code> | P, ρ, ϱ |
| <code>\Sigma, \sigma, \varsigma</code> | $\Sigma, \sigma, \varsigma$ |
| <code>\Tau, \tau</code> | T, τ |
| <code>\Upsilon, \upsilon</code> | Υ, υ |
| <code>\Phi, \phi, \varphi</code> | Φ, ϕ, φ |
| <code>\Chi, \chi</code> | X, χ |
| <code>\Psi, \psi</code> | Ψ, ψ |
| <code>\Omega, \omega</code> | Ω, ω |

N.B. The font will be different if “Mathematical font” is unchecked.

Hebrew letters

| | |
|---------------------|-----------|
| <code>\aleph</code> | \aleph |
| <code>\beth</code> | \beth |
| <code>\gimel</code> | \gimel |
| <code>\dalet</code> | \daleth |

Fonts

| | |
|---|---|
| ABC abc 123 | <i>ABC abc 123</i> |
| $\mathbf{ABC\ abc\ 123}$ | <i>ABC abc 123</i> |
| $\mathbf{\backslash Alpha\backslash alpha\ \backslash Beta\backslash beta}$ | <i>A\alpha B\beta</i> |
| $\mathbf{ABC\ abc\ 123}$ | ABC abc 123 |
| $\mathbf{\frac{ABC\ abc}{}}$ | <i>\frac{ABC\ abc}{}</i> |
| $\mathbf{\mathcal{ABC\ abc}}$ | <i>\mathcal{ABC\ abc}</i> |
| $\mathbf{\frac{\mathcal{ABC\ abc}}{}}$ | <i>\frac{\mathcal{ABC\ abc}}{}</i> |
| $\mathbf{\mathcal{\frac{ABC\ abc}{}}}$ | <i>\mathcal{\frac{ABC\ abc}{}}</i> |
| ABC\ abc\ 123 | ABC abc 123 |
| $\textit{ABC\ abc\ 123}$ | ABC abc 123 |
| $\textbf{ABC\ abc\ 123}$ | ABC abc 123 |
| $\texttt{ABC\ abc\ 123}$ | ABC abc 123 |
| $\textbf{\textit{ABC\ abc\ 123}}$ | <i>ABC abc 123</i> |

| | |
|---|------------------|
| $\mathbf{\backslash Pi\ \backslash pi}$ | $\Pi\ \pi$ |
| $\mathbf{\backslash Gamma\ \backslash gamma}$ | $\Gamma\ \gamma$ |
| $\mathbf{\backslash Sigma}$ | Σ |

These are the only greek letters in $\mathbf{\backslash mathbb}$ as of v 2.0.3

Combining symbols

| | |
|---|---|
| <code>\hat{x}</code> , <code>\overline{y}</code> , <code>\underline{z}</code> | \hat{x} , \bar{y} , \underline{z} |
| <code>\acute{o}</code> , <code>\grave{u}</code> | \acute{o} , \grave{u} |
| <code>\breve{a}</code> , <code>\check{v}</code> | \breve{a} , \check{v} |
| <code>\overfrown{nm}</code> | $n\widehat{m}$ |
| <code>\oversmile{\rho\tau}</code> | $\overset{\smile}{\rho\tau}$ |
| <code>\undersmile{\mathbf{A}\mathbf{B}}</code> | $\underset{\smile}{\mathbf{A}\mathbf{B}}$ |
| <code>\underarrow{xz}</code> | \underarrow{xz} |
| <code>\underharpoon{\textbf{k}}</code> | $\underharpoon{\mathbf{k}}$ |
| <code>\tilde{\pi}</code> | $\tilde{\pi}$ |
| <code>\tilde{uv}</code> | \tilde{uv} |
| <code>\vec{e}</code> | \vec{e} |
| <code>\hvec{\alpha}</code> | $\vec{\alpha}$ |
| <code>\not{\perp}</code> | $\not\perp$ |
| <code>\dot{x}</code> , <code>\ddot{y}</code> | \dot{x} , \ddot{y} |
| <code>p \above{x}</code> | $\overset{\cdot}{p}$ |
| <code>n \below{x}</code> | $\underset{\cdot}{n}$ |

Please note that `\above{}` and `\below{}` contain only a few possible arguments, most aren't available in Unicode. But you can still do cool things like:

`\sum_{i=0}^n \above{n}_{0} k = (n+1)k \rightarrow \sum_{i=0}^n k = (n+1)k`
 (`\above{}` will be assigned to the character before it.)

Some will give a bad rendering (e.g. `\hat{A}` $\rightarrow \hat{A}$). However, the symbol might be positioned adequately in some apps or websites. I recommend using the “regular” alphabet if the goal is to add a hat, overline, etc. You can do so by doing `\hat{\text{A}}` instead $\rightarrow \hat{A}$ vs \hat{A} .

Subscript and superscript

To write regular characters as subscript or superscript, simply start the word with a “_” or “^”, respectively.

| | |
|---------------------------------|---------------------------------|
| $x^{\text{abc123}}, o^{1+2=3}$ | $x^{\text{abc123}}, o^{1+2=3}$ |
| $y_{\text{ijk456}}, i_{2(3)=6}$ | $y_{\text{ijk456}}, i_{2(3)=6}$ |

Some characters are missing because they do not exist in Unicode.

| | |
|------------|------------|
| β | β |
| γ | γ |
| Δ | δ |
| ϵ | ϵ |
| Λ | Λ |
| θ | θ |
| ι | ι |
| ν | ν |
| ρ | ρ |
| σ | σ |
| Φ | ϕ |
| χ | χ |

| | |
|---------------|---------------|
| \int | \int |
| \neq | \neq |
| \circ | \circ |
| $\$$ | $\$$ |
| \rightarrow | \rightarrow |
| ∞ | ∞ |
| \emptyset | \emptyset |

Chess & card games





| | |
|---------------------------------|------|
| <code>\wking, \bking</code> | ♔, ♚ |
| <code>\wqueen, \bqueen</code> | ♕, ♛ |
| <code>\wrook, \brook</code> | ♖, ♜ |
| <code>\wbishop, \bbishop</code> | ♗, ♝ |
| <code>\wknight, \bknight</code> | ♘, ♞ |
| <code>\wpawn, \bpawn</code> | ♙, ♟ |

| | |
|-----------------------------------|------|
| <code>\wspade, \bspade</code> | ♠, ♠ |
| <code>\wheart, \bheart</code> | ♥, ♥ |
| <code>\wclub, \bclub</code> | ♣, ♣ |
| <code>\wdiamond, \bdiamond</code> | ♦, ♦ |

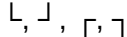
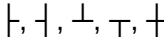

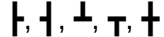
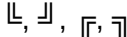
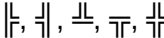
Money and currency

| | |
|--|---------------|
| <code>\dollar, \cent</code> | \$, ¢ |
| <code>\euro, \franc, \ruble, \pound, \hryvnia</code> | €, ₣, ₧, £, ₴ |
| <code>\yen, \rupee, \won, \baht</code> | ¥, ₹, ₩, ฿ |
| <code>\lira, \tlira</code> | ₺, ₺ |
| <code>\peso</code> | ₱ |
| <code>\austral</code> | ₣ |
| <code>\bitcoin</code> | ₿ |

Music

| | |
|--|---|
| <code>\halfnote</code> , <code>\fullnote</code> , <code>\doublenote</code> |  |
| <code>\flat</code> , <code>\sharp</code> , <code>\natural</code> |  |
| <code>\eighthnote</code> , <code>\sixteenthnote</code> , <code>\quarternote</code> |  |
| <code>\trebleclef</code> |  |

Box drawings

| | |
|---|---|
| <code>\boxur</code> , <code>\boxul</code> , <code>\boxdr</code> , <code>\boxdl</code> |  |
| <code>\boxvr</code> , <code>\boxvl</code> , <code>\boxuh</code> , <code>\boxdh</code> , <code>\boxvh</code> |  |
| <code>\boxbfur</code> , <code>\boxbful</code> , <code>\boxbfdr</code> , <code>\boxbfdl</code> |  |
| <code>\boxbfvr</code> , <code>\boxbfvl</code> , <code>\boxbfuh</code> , <code>\boxbfdh</code> , <code>\boxbfvh</code> |  |
| <code>\boxUR</code> , <code>\boxUL</code> , <code>\boxDR</code> , <code>\boxDL</code> |  |
| <code>\boxVR</code> , <code>\boxVL</code> , <code>\boxUH</code> , <code>\boxDH</code> , <code>\boxVH</code> |  |

Other symbols

| | |
|---|---|
| <code>\infty</code> |  |
| <code>\iinfin</code> , <code>\tieinfty</code> , <code>\nvinfty</code> |  |
| <code>\acidfree</code> |  |
| <code>\radioactive</code> , <code>\biohazard</code> |  |
| <code>\atom</code> |  |
| <code>\hbar</code> |  |
| <code>\wp</code> |  |
| <code>\ell</code> |  |
| <code>\angstrom</code> |  |

| | |
|---|-----------------|
| <code>\mho</code> | ℳ |
| <code>\dagger, \ddagger</code> | †, ‡ |
| <code>\section, \paragraph</code> | §, ¶ |
| <code>\textbullet, \bigbullet</code> | •, ● |
| <code>\copyright, \registered</code> | ©, ® |
| <code>\qc</code> | ♣ |
| <code>\smile, \frown</code> | ☺, ☹ |
| <code>\emdash</code> | — |
| <code>\squaredots</code> | ⋮ |
| <code>\ldots, \cdots, \udots, \vdots, \ddots</code> | ..., ⋯, ⋮, ⋱, ⋴ |
| <code>\male, \female</code> | ♂, ♀ |
| <code>\Hermaphrodite, \neuter</code> | ♂, ♀ |
| <code>\femalemale</code> | ♀♂ |
| <code>\malemale, \femalefemale</code> | ♂♂, ♀♀ |
| <code>\^, _</code> | ^, _ |

Space, line break, tab

Space: “`\:`”

Double spaces: “`\;`”

Triple spaces: “`\quad`”

Quadruple spaces: “`\qqquad`”

Remove space: “`\!`” (*useful to cancel automatic spacing with “Adjust spaces”*)

Line break: “`\`” or “`\linebreak`”

Tab: “`\tab`”

To skip multiple lines, use “`\vskip{1}`”, “`\vskip{2}`”, ... “`\vskip{n}`”

To add multiple spaces, use “`\hspace{1}`”, “`\hspace{2}`”, ... “`\hspace{n}`”

To add the same number of spaces as characters in a word (or in a command), use “``”, “``”, etc. where `` outputs 3 spaces and `` outputs 1.

Also, note that it's possible to uncheck “Adjust spaces” (more info in “Tutorial”) and to make modifications, including adding or removing spaces, skipping a line, etc., once the converted text is in the second area.

Outside mathmode

| | |
|---|---|
| <code>\LaTeX, \TeX, \MatTaIX</code> | $L^A\mathrm{TeX}$, TeX , $\mathrm{MAT}\mathrm{TAL}\mathrm{X}$ |
| <code>\O, \o</code> | Ø, ø |
| <code>\L, \l</code> | Ł, ł |
| <code>\i, \j</code> | ı, j |
| <code>\OE, \oe</code> | Œ, œ |
| <code>\AE, \ae</code> | Æ, æ |
| <code>\`{a}, \'{e}, \^{i}, \^{o}, \H{u}, \~{y}</code> | à, é, î, ö, ú, ÿ |
| <code>\u{m}, \v{n}, \r{o}, \={p}, \.{q}</code> | ǻ, ǻ, ǻ, ǻ, ǻ |
| <code>\c{c}, \k{k}, \b{b}, \d{d}</code> | ç, k, <u>b</u> , d |
| <code>\textbf{abc}</code> | abc |
| <code>\textit{def}</code> | <i>def</i> |
| <code>\texttt{hij}</code> | h i j |
| <code>\textbullet, \textbackslash</code> | •, \ |
| <code>\section, \paragraph</code> | §, ¶ |
| <code>\copyright, \registered</code> | ©, ® |
| <code>\today</code> | April 8, 2023 |