1 Latex

1.1 commonly used special symbols

use the shortcut created to don't waste time

    \\= \textbackslash
    |= \textbar
    _ = _

1.2 Greek and Hebrew Letters

α	\ alpha	κ	\ kappa	ψ	\ psi
β	\ beta	λ	\ lambda	ρ	\ rho
χ	\ chi	μ	\ mu	τ	\ tau
ϵ	\ epsilon	$\o$	\ o	θ	\ theta
η	\ eta	ω	\ omega	υ	\ upsilon
γ	\ gamma	ϕ	\ phi	ξ	\ xi
ι	\ iota	π	\ pi	ζ	\ zeta
F	\ digamma	Δ	\ Delta	Θ	\ Theta
ε	\ varepsilon	Γ	\ Gamma	Υ	\ Upsilon
$\varkappa$	\ varkappa	Λ	\ Lambda	Ξ	\ Xi
φ	\ varphi	Ω	\ Omega		
ϖ	\ varpi	Φ	\ Phi	$\aleph$	\ aleph
ϱ	\ varrho	Π	\ Pi	$\beth$	\ beth
ς	\ varsigma	Ψ	\ Psi	$\daleth$	\ daleth
ϑ	\ vartheta	Σ	\ Sigma	$\gimel$	\ gimel

1.3 math constructs

$\frac{abc}{xyz}$	\frac{abc}{xyz}	$\overline{abc}$	\overline{abc}	$\overrightarrow{abc}$	\overrightarrow{abc}
f'	\f'	$\underline{abc}$	\underline{abc}	$\overleftarrow{abc}$	\overleftarrow{abc}
$\sqrt{abc}$	\sqrt{abc}	$\widehat{abc}$	\widehat{abc}	$\overbrace{abc}$	\overbrace{abc}
$\sqrt[n]{abc}$	\sqrt[n]{abc}	$\widetilde{abc}$	\widetilde{abc}	$\underbrace{abc}$	\underbrace{abc}

1.4 Delimeters

$\vert$	—	{	{	\ {	$\lfloor$	\lfloor	/	/	
$\vert$	\vert	{	{	\}	$\rfloor$	\rfloor	\	\backslash	
$\|$	\\|	$\langle$	\langle		$\lceil$	\lceil	[	[	
$\|$	\Vert	$\rangle$	\rangle		$\rceil$	\rceil	]	]	

    use the pair /lefts and /rights
    example:
    \left| *expr* \right|

1.5 Variable Sized simbols

$\sum$	\sum	$\int$	\int	$\biguplus$	\biguplus
$\prod$	\prod	$\oint$	\oint	$\bigcap$	\bigcap
$\coprod$	\coprod	$\iint$	\iint	$\bigcup$	\bigcup
$\bigoplus$	\bigoplus	$\bigvee$	\bigvee	$\bigotimes$	\bigotimes
$\bigwedge$	\bigwedge	$\bigodot$	\bigodot	$\bigsqcup$	\bigsqcup

1.6 binary operation relation symbols

$\cap$	\cap	$\cup$	\cup
$\uplus$	\uplus	$\sqcup$	\sqcup
$\sqcap$	\sqcap	$\wedge$	\wedge
$\vee$	\vee	$\equiv$	\equiv
$\neq$	\neq	$\simeq$	\simeq
$\approx$	\approx	$\doteq$	\doteq
$\subset$	\subset	$\because$	\because
$\sqsubset$	\sqsubset	$\sqsubseteq$	\sqsubseteq
$\geq$	\geq	$\therefore$	\therefore

1.7 arrow symbols

$\leftarrow$	\leftarrow	$\Leftarrow$	\Leftarrow
$\rightarrow$	\rightarrow	$\Rightarrow$	\Rightarrow
$\leftrightarrow$	\leftrightarrow	$\Leftrightarrow$	\Leftrightarrow
$\uparrow$	\uparrow	$\Uparrow$	\Uparrow
$\downarrow$	\downarrow	$\Downarrow$	\Downarrow
$\updownarrow$	\updownarrow	$\Updownarrow$	\Updownarrow
$\nearrow$	\nearrow	$\searrow$	\searrow
$\swarrow$	\swarrow	$\nwarrow$	\nwarrow

1.8 miscelanious

∞	\infty	∂	\partial
$\cdots$	\cdots	$\vdots$	\vdots
$\vdots$	\vdots	$\ldots$	\ldots
$\ddots$	\ddots	$\forall$	\forall
$\exists$	\exists	$\nexists$	\nexists
$\emptyset$	\emptyset	$\angle$	\angle
$\angle$	\angle	$\measuredangle$	\measuredangle
$\cap$	\cap	$\cap$	\cap
$\cap$	\cap	$\cap$	\cap

1.9 Matrices

matrices		
type	latex markup	Renders as
Plain	$\begin\{<opt> matrix\}$ 1 2\\ 2 3 $\end\{<opt> matrix\}$	1 2 3 4

$<$

opt >:

in this part you can specify which kind of matrix you wan't so you can place p: parenthesis matrix ()

b:bracket matrix []
B: for braces matrix
v: for pipes matrix —
V: for double pipe ——

2 Install python version

```
# download the python version you need from https://www.python.org/downloads/source/
# unpack in the .local/src/pythonversions/pythonVersion.tgz
tar zxvf pythonVersion.tgz
cd pythonVersion
# Install the python version
./configure
make
sudo make install
make clean
# check python version
python[python_version] --version
# create a python environment using that python version
python[python_version] -m venv venv/
# source the environment
source venv/bin/activate
# for deactivating
deactivate
```