Unicode declarations for \LaTeX documents

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May 28, 2020

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Some of the supported symbols

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1 About this file

In order to write LATEX documents using unicode in the source code, we must often tell LATEX what we want the unicode characters to be rendered as.

There are at least two ways to inform LATEX of unicode character translations;

- \DeclareUnicodeCharacter; this command does not work with XeLaTeX or LuaLaTeX, which I use.
- \newunicodechar; this command is provided by the newunicodechar package, which may not be preinstalled for all LATEX users.

This collection uses the second.

1.1 Usage

This file generates (via Org Babel tangling) the file unicode.sty.

To use it, either place it in the same directory as your .tex file, and require it via \usepackage{unicode}. Alternatively, place it in your texmf directory to allow global usage on your system. That directory is commonly located at the following locations on various OS's.

- Linux
 - ~/texmf/tex/latex/local/
- Mac OS X
 - /Users/<user name>/Library/texmf/tex/latex/local/
- Windows 10 (and miktex)
 - C:\Users\<user name>\Appdata\Local\MikTex\<number>\tex\latex\local\
- Windows Vista/7
 - C:\Users\<user name>\texmf\tex\latex\local\
- Windows XP
 - C:\Documents and Settings\<user name>\texmf\tex\latex\local\

By default, we assume the standard pdflatex typesetting engine is used, if you are using XeLaTeX or LuaLaTeX, then simply declare:

\pdflatexfalse

%% \pdflatexfalse

1.2 Required LATEX packages

Of course we require the newunicodechar package to use that command.

```
\usepackage{newunicodechar}
```

```
\usepackage{ifxetex, ifluatex} % Also used in agda.sty: xifthen
\% https://tex.stackexchange.com/questions/47576/combining-ifxetex-and-ifluatex-with-the-

    logical-or-operation

\newif\ifpdflatex
\ifxetex
  \pdflatexfalse
\else
  \ifluatex
    \pdflatexfalse
  \else
    \pdflatextrue
  \fi
\fi
%\newif\ightharpoonup
%\pdflatextrue
%% To use other typesetting engines, declare the following:
```

The unicode-math package "provides a complete implementation of unicode maths for XeLaTeX and Lu-aLaTeX".

1.3 Contributing to this document

This document is written in Emacs using Org mode. While the exported PDF version, etc., show a collection of LaTeX source blocks, these are in fact generated by an Emacs Lisp script below.

That means that contributions to this document should modify the Emacs Lisp script, not unicode.sty or the LATEX source blocks themselves.

1.4 The Emacs Lisp script

In this document, several lists of unicode character, LATEX translation pairs are declared, and then "wrapped" into latex source blocks, using this function to map the pairs into newunicodechar declarations.

2 Blackboard, Calligraphic, and Bold-font

These lists are most likely complete, unless I have missed some characters aside from Latin letters, Greek letters and Arabic numerals which should be included.

For Agda users, the unicode symbols may be entered using the following sequences:

Blackboard $\begin{tabular}{ll} \begin{tabular}{ll} \begin{tabula$

```
\ifpdflatex
\DeclareMathAlphabet\mathbfcal{OMS}{cmsy}{b}{n}
\fi
```

2.1 Blackboard

2.1.1 Lowercase Latin

```
\ifpdflatex
   \newunicodechar{0}{\ensuremath{\mathbbm{a}}}
\else
   \newunicodechar{0}{\ensuremath{\mathbb{a}}}
\fi
\ifpdflatex
   \newunicodechar{b}{\ensuremath{\mathbbm{b}}}
\else
   \newunicodechar{b}{\ensuremath{\mathbbm{b}}}}
\fi
\ifpdflatex
```

```
\else
 \label{condition} $$\operatorname{c}{\operatorname{c}}{\operatorname{mathbb}\{c\}}$$
\fi
\ifpdflatex
 \newunicodechar{d}{\ensuremath{\mathbbm{d}}}}
\else
 \newunicodechar{d}{\ensuremath{\mathbb{d}}}}
\fi
\ifpdflatex
 \newunicodechar{@}{\ensuremath{\mathbbm{e}}}}
 \newunicodechar{e}{\ensuremath{\mathbb{e}}}}
\fi
\ifpdflatex
 \newunicodechar{f}{\ensuremath{\mathbbm{f}}}}
 \fi
\ifpdflatex
 \newunicodechar{q}{\ensuremath{\mathbbm{g}}}}
 \newunicodechar{q}{\ensuremath{\mathbb{g}}}}
\fi
\ifpdflatex
 \else
 \new unicode char {$h$} {\new unicode char {$h$}} {\new unicode char {$h$}} 
\fi
\ifpdflatex
 \newunicodechar{i}{\ensuremath{\mathbbm{i}}}
\else
 \newunicodechar{i}{\ensuremath{\mathbb{i}}}}
\fi
\ifpdflatex
 \new unicode char{|||}{\operatorname{mathbbm}{|||}}
\else
 \fi
\ifpdflatex
 \fi
\ifpdflatex
 \fi
\ifpdflatex
 \newunicodechar{m}{\ensuremath{\mathbbm{m}}}
\else
```

```
\newunicodechar{m}{\ensuremath{\mathbb{m}}}}
\fi
\ifpdflatex
 \newunicodechar{m}{\ensuremath{\mathbbm{n}}}
 \fi
\ifpdflatex
 \newunicodechar{0}{\ensuremath{\mathbbm{o}}}}
 \newunicodechar{0}{\ensuremath{\mathbb{o}}}}
\fi
\ifpdflatex
 \newunicodechar{p}{\ensuremath{\mathbbm{p}}}}
\else
 \mbox{newunicodechar}{p}{\mbox{ensuremath}\{\mathbb{p}\}}
\fi
\ifpdflatex
 \newunicodechar{q}{\ensuremath{\mathbbm{q}}}}
 \newunicodechar{q}{\ensuremath{\mathbb{q}}}}
\fi
\ifpdflatex
 \new unicode char \{r\} {\new unicode char \{r\}} \}
\fi
\ifpdflatex
 \newunicodechar{$}{\ensuremath{\mathbbm{s}}}
 \fi
\ifpdflatex
 \newunicodechar{\bar{\bar{\bar{t}}}}
\else
 \fi
\ifpdflatex
 \newunicodechar{u}{\ensuremath{\mathbbm{u}}}
 \fi
\ifpdflatex
 \newunicodechar{v}{\ensuremath{\mathbbm{v}}}
 \newunicodechar{v}{\ensuremath{\mathbb{v}}}}
\fi
\ifpdflatex
 \newunicodechar{w}{\ensuremath{\mathbb{w}}}}
\fi
```

```
\ifpdflatex
          \newunicodechar{x}{\ensuremath{\mathbbm{x}}}
         \newunicodechar{x}{\ensuremath{\mathbb{x}}}}
\fi
\ifpdflatex
         \newunicodechar{y}{\ensuremath{\mathbbm{y}}}
         \newunicodechar{y}{\ensuremath{\mathbb{y}}}}
\fi
\ifpdflatex
         \mbox{\codechar}{z}{\codechar}{x}
\else
         \label{eq:local_ensuremath} $$\operatorname{z}{{\ensuremath}_{z}}$
\fi
2.1.2 Uppercase Latin
\mbox{\newunicodechar}{\B}{\consumerath}{\mbox{\mathbb}}
\mbox{\codechar}{\mathbb{C}}{\codechar}{\codechar}{\codechar}{\codechar}
\mbox{\newunicodechar}{\mathbb{D}}{\newunicodechar}{\mathbb{D}}}
\mbox{\codechar}{\mathbb{E}}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codecha
```

$\mbox{\newunicodechar}{\mathbb{G}}{\newunicodechar}{\mbox{\newunicodechar}}$ $\mbox{\newunicodechar}{H}{\c mathbb{H}}$ \newunicodechar{||}{\ensuremath{\mathbb{I}}}} \newunicodechar{\J}{\ensuremath{\mathbb{J}}}} $\mbox{\newunicodechar}{\cline{L}}{\cline{L}}}$ \newunicodechar{M}{\ensuremath{\mathbb{M}}} $\new unicode char {\mathbb{N}} {\new unicode char {\mathbb{N}}} {\new unicode char {\mathbb{N}}}$ $\new unicode char { 0 } {\new unicode char { 0 } {\new unicode char { 0 } } }$ $\new unicode char {P}{\new unicode char {P}}{\new unicode char {P}}{\new unicode char {P}}}$ $\new unicode char{\mathbb{R}}{\new unicode char{\mathbb{R}}}$ $\new unicode char {\$}{\new unicode char {\$}}{\new unicode char {\$}}$ $\new unicode char {T}{\new unicode char {T}}{\new unicode char {T}}{\new unicode char {T}}{\new unicode char {T}}}$ $\mbox{\newunicodechar}{\mathbb{U}}{\newunicodechar}{\mathbb{U}}}$ $\mbox{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}$ $\mbox{\newunicodechar}{\w}_{\newunicodechar}{\w}_{\newunicodechar}$ $\mbox{\newunicodechar}{X}{\newunicodechar}{X}}$

2.1.3 Arabic Numerals

```
% For double stroke digits with pdflatex
\usepackage[bbgreekl] {mathbbol}
\DeclareSymbolFontAlphabet{\mathbbl}{bbold}
\ifpdflatex
\newunicodechar{1}{\ensuremath{\mathbbl}{1}}}
```

```
\else
      \newunicodechar{1}{\ensuremath{\mathbb{1}}}
\fi
\ifpdflatex
      \newunicodechar{2}{\ensuremath{\mathbbl{2}}}}
     \newunicodechar{2}{\ensuremath{\mathbb{2}}}}
\fi
\ifpdflatex
     \newunicodechar{3}{\ensuremath{\mathbbl{3}}}
     \newunicodechar{3}{\ensuremath{\mathbb{3}}}}
\fi
\ifpdflatex
     \newunicodechar{4}{\ensuremath{\mathbbl{4}}}}
     \newunicodechar{4}{\ensuremath{\mathbb{4}}}}
\fi
\ifpdflatex
     \newunicodechar{5}{\ensuremath{\mathbbl{5}}}
\else
     \newunicodechar{5}{\ensuremath{\mathbb{5}}}}
\fi
\ifpdflatex
     \newunicodechar{6}{\ensuremath{\mathbbl{6}}}}
     \newunicodechar{6}{\ensuremath{\mathbb{6}}}}
\fi
\ifpdflatex
      \mbox{\newunicodechar}{\label{7}}
      \new unicode char { } {\new unicode char { } {\new unicode char { } } }
\fi
\ifpdflatex
     \newunicodechar{\B}{\ensuremath{\mathbb{8}}}}
\fi
\ifpdflatex
     \else
     \fi
\ifpdflatex
     \newunicodechar{0}{\ensuremath{\mathbbl{0}}}}
\else
      \new unicode char {0}{\new unicode char {0}}{\new unicode char {0}{\new unicode char {0}}{\new unicode char {0}{
\fi
```

2.2 Calligraphic

2.2.1 Lowercase Latin

```
\ifpdflatex
      \mbox{\newunicodechar}\{a\}{\newunicodechar}\{a\}\}
      \verb|\newunicodechar|{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\newunicodechar}{a}{\n
\fi
\ifpdflatex
      \verb|\newunicodechar|{b}{\newunicodechar}{b}| \\
      \mbox{\newunicodechar}{b}{\newunicodechar}{b}}
\fi
\ifpdflatex
      \new = c {\new = c} {\new = c} 
      \new unicode char \{c\} \{\new unit code char \{c\}\}\}\
\fi
\ifpdflatex
      \verb|\newunicodechar{|}d}{\newunicodechar{d}}|
\else
      \verb|\newunicodechar|{d}{\columnwidth}| \\
\fi
\ifpdflatex
      \new unicode char{e}{\new unicode char{e}}
      \mbox{\codechar}\{e\}{\codechar}\{e\}\}
\fi
\ifpdflatex
      \new unicode char \{f\} \{\new unicode char \{f\}\} \}
      \new unicode char \{f\} {\new unicode char \{f\}} \}
\fi
\ifpdflatex
      \mbox{\ensuremath}{g}{\ensuremath}{g}
      \verb|\newunicodechar{g}{\newunicodechar{g}}| \\
\fi
\ifpdflatex
      \verb|\newunicodechar|{h}{\newunicodechar}{h}| \\
\else
      \new unicode char\{h\}{\new unicode char\{h\}}\}
\fi
\ifpdflatex
      \newunicodechar{i}{\ensuremath{i}}}
\else
      \new unicode char \{i\} \{\new unit math cal \{i\}\}\}
\fi
\ifpdflatex
      \new unicode char {j}{\new unicode char {j}}
      \newunicodechar{j}{\ensuremath{\mathcal{j}}}}
```

```
\fi
\ifpdflatex
      \new unicode char \{k\} \{\new unimpose k\} \}
\else
      \verb|\newunicodechar|{k}{\newunicodechar}{k}| \\
\fi
\ifpdflatex
      \new unicode char \{l\} \{\new unimpose \} \}
      \mbox{\newunicodechar}{l}{\newunicodechar}{l}{\newunicodechar}{l}}
\fi
\ifpdflatex
      \verb|\newunicodechar{|m|}{\newunicodechar{m|}}|
\else
      \mbox{\newunicodechar}{m}{\codechar}{m}{\codechar}{m}{\codechar}{m}{\codechar}{m}{\codechar}{m}{\codechar}{m}{\codechar}{m}{\codechar}{\codechar}{m}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\co
\fi
\ifpdflatex
      \verb|\newunicodechar{n}{\newunicodechar{n}}|
      \verb|\newunicodechar|{n}{\newunicodechar{n}}|
\fi
\ifpdflatex
      \newunicodechar{o}{\ensuremath{o}}}
      \newunicodechar{o}{\ensuremath{\mathcal{o}}}}
\fi
\ifpdflatex
      \new unicode char \{p\} \{\new unicode char \{p\}\} \}
\else
      \new unicode char \{p\} \{\new unicode char \{p\}\}\}\
\fi
\ifpdflatex
      \verb|\newunicodechar{|q|}{\newunicodechar{|q|}}|
      \fi
\ifpdflatex
      \mbox{\newunicodechar}{r}{\consumerath{\mathcal}{r}}
\fi
\ifpdflatex
      \new unicode char \{s\} \{\new unicode char \{s\}\} \}
\else
      \mbox{\newunicodechar}{s}{\newunicodechar}{s}}
\fi
\ifpdflatex
      \verb|\newunicodechar|{t}{\newunicodechar}{t}| \\
\else
      \verb|\newunicodechar|{t}{\newunicodechar}{t}| \\
\fi
\ifpdflatex
```

```
\verb|\newunicodechar| \{u\} \{ \texttt| \{u\} \} \}
\else
          \verb|\newunicodechar| \{u\} \{\newunicodechar \{u\} \} \}
\fi
\ifpdflatex
          \new unicode char \{v\} \{\new unicode char \{v\}\} \}
\else
           \mbox{\newunicodechar}\{v\}{\newunicodechar}\{v\}\}
\fi
\ifpdflatex
          \new unicode char\{w\}\{\new unicode char\{w\}\}\}\
          \fi
\ifpdflatex
           \new unicode char\{x\}\{\new unimpose x\}\}\
           \verb|\newunicodechar{}x}{\newunicodechar{}x}{\newunicodechar{}x}|
\fi
\ifpdflatex
          \newunicodechar{y}{\ensuremath{y}}}
           \newunicodechar{y}{\ensuremath{\mathcal{y}}}}
\fi
\ifpdflatex
          \new = \{z\} \{\new = z\} \}
           \mbox{\newunicodechar}{z}{\newunicodechar}{z}}
\fi
2.2.2 Uppercase Latin
\new unicode char {A}{\new unicode char {A}}{\new unicode char {A}
\mbox{\newunicodechar}{B}}
\new unicode char \{C\} \{\new unit ode char \{C\}\} \}
\mbox{\newunicodechar}{\mathcal{D}}{\newunicodechar}{\mathbb{D}}}
\mbox{\codechar}{\mathcal{E}}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codecha
\mbox{\newunicodechar}{\mathcal{F}}{\newunicodechar}{\mathcal{F}}}
\verb|\newunicodechar{$\mathcal{G}$}{\newunicodechar{$\mathcal{G}$}}|
\mbox{\newunicodechar}{\mathcal{H}}{\newunicodechar}{\mathcal{H}}}
\new unicode char {\mathcal{I}}{\new unicode char {\mathcal{I}}} 
\new unicode char {\mathcal{J}}{\new unicode char {\mathcal{J}}} 
\mbox{\newunicodechar}{\mathcal{K}}{\newunicodechar}{\mathcal{K}}}
\verb|\newunicodechar{$\mathcal{L}$}{\newunicodechar{$L$}}|
\verb|\newunicodechar{$\mathcal{M}$}{\newunicodechar{$\mathbb{M}$}}|
\new unicode char {O}{\new unicode char {O}} {\new unicode char {O}} }
\verb|\newunicodechar{$\mathcal{P}$}{\newunicodechar{$\mathbb{P}$}}|
\new unicode char {\it Q}{\new unicode char {\it Q}}{\new unicode char {\it
\mbox{\newunicodechar}{\mathcal{R}}{\newunicodechar}{\mathbb{R}}}
```

```
\label{eq:local_variance} $$\operatorname{U}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname{U}}_{\operatorname
```

2.3 Bold-font

2.3.1 Lowercase Latin

```
\newunicodechar{a}{\ensuremath{\mathbf{a}}}}
\verb|\newunicodechar{b}{\newunicodechar{b}}| \\
\newunicodechar{c}{\ensuremath{\mathbf{c}}}}
\mbox{\newunicodechar}{d}{\newunicodechar}{d}}
\newunicodechar{e}{\ensuremath{\mathbf{e}}}}
\newunicodechar{f}{\ensuremath{\mathbf{f}}}
\new unicode char \{g\} \{\new unit ode char \{g\} \} \}
\newunicodechar{h}{\ensuremath{\mathbf{h}}}}
\newunicodechar{i}{\ensuremath{\mathbf{i}}}
\newunicodechar{j}{\ensuremath{\mathbf{j}}}}
\new unicode char \{l\} {\new unicode char \{k\}} \}
\newunicodechar{l}{\ensuremath{\mathbf{1}}}
\newunicodechar{m}{\ensuremath{\mathbf{m}}}}
\newunicodechar{n}{\ensuremath{\mathbf{n}}}
\newunicodechar{o}{\ensuremath{\mathbf{o}}}}
\newunicodechar{p}{\ensuremath{\mathbf{p}}}}
\newunicodechar{q}{\ensuremath{\mathbf{q}}}}
\newunicodechar{r}{\ensuremath{\mathbf{r}}}
\newunicodechar{s}{\ensuremath{\mathbf{s}}}
\new unicode char \{t\} {\new unit} \{t\} \}
\new unicode char \{u\} {\new unicode char \{u\}} \}
\newunicodechar{w}{\ensuremath{\mathbf{w}}}}
\newunicodechar{y}{\ensuremath{\mathbf{y}}}}
```

2.3.2 Uppercase Latin

```
\label{lem:newunicodechar} $$ \operatorname{A}{\operatorname{A}}_{\mathcal{B}} \rightarrow \mathbb{B}} \rightarrow \mathbb{B}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}} \rightarrow \mathbb{B}_{\mathcal{B}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{C}}_{\mathcal{B}}} \rightarrow \mathbb{B}_{\mathcal{C}}_{\mathcal{B}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}} $$ \operatorname{A}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B}}_{\mathcal{B
```

2.4 \mathcal{B} old \mathcal{C} alligraphic

```
% For bold calligraphic letters
\ifpdflatex
\DeclareMathAlphabet\mathbfcal{OMS}{cmsy}{b}{n}
\fi
```

2.4.1 Lowercase Latin

```
\noindent \noindent\noindent \noindent \noindent \noindent \noindent \noindent \noin
\new unicode char \{b\} \{\new unit ode char \{b\} \} \}
\mbox{\codechar}{c}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{
\mbox{\newunicodechar}{d}{\consuremath{\mathbfcal{d}}}
\verb|\newunicodechar| \{e\} \{\newunicodechar| \{e\} \} \}
\newunicodechar{f}{\ensuremath{\mathbfcal{f}}}
\newunicodechar{g}{\ensuremath{\mathbfcal{g}}}}
\verb|\newunicodechar|{h}{\columnwidth}| wathbfcal{h}| \\
\newunicodechar{i}{\ensuremath{\mathbfcal{i}}}
\newunicodechar{j}{\ensuremath{\mathbfcal{j}}}}
\new unicode char \{k\} \{\new unit h\{\nathbf cal\{k\}\}\}\
\new unicode char \{l\} {\new unicode char \{l\}} \}
\verb|\newunicodechar|{m}{\column{m}{\column{m}{}}}|
\mbox{\newunicodechar}{n}{\column{n}}
\newunicodechar{o}{\ensuremath{\mathbfcal{o}}}}
\newunicodechar{p}{\ensuremath{\mathbfcal{p}}}}
\new unicode char \{q\} \{\new unit ode char \{q\}\} \}
\verb|\newunicodechar|{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r}{\column{r
\new unicode char \{s\} {\new unicode char \{s\}} 
\new unicode char \{t\} {\new unicode char \{t\}} \}
\verb|\newunicodechar| \{u\} \{\newunicodechar \{u\} \} \}
\verb|\newunicodechar| \{v\} \{ \texttt| \newunicodechar| \{v\} \} \}
\verb|\newunicodechar| \{w\} \{\texttt| \mathbfcal\{w\}\}\}|
\mbox{\newunicodechar}{x}{\consumerath}{\mbox{\mathbfcal}{x}}}
\newunicodechar{y}{\ensuremath{\mathbfcal{y}}}
\mbox{\newunicodechar}{z}{\newunicodechar}{z}}
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2.4.2 Uppercase Latin

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\mbox{\newunicodechar}{A}{\c mathbfcal{A}}
\mbox{\newunicodechar}{\mathcal{B}}{\column{B}}
\mbox{\codechar}{\mathcal{C}}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codecha
\new unicode char \{ \mathcal{D} \} \{ \new unit ode char \{ \mathcal{D} \} \} \}
\mbox{\codechar}{\mathcal{E}}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codecha
\mbox{\newunicodechar}{\mathcal{F}}{\newunicodechar}{\mathcal{F}}}
\new unicode char \{G\} \{\new unit ode char \{G\}\} \}
\mbox{\newunicodechar}{\mathcal{H}}{\newunicodechar}{\mathcal{H}}}
\mbox{\newunicodechar}{\mathcal{I}}{\newunicodechar}{\mbox{\newunicodechar}{\mathbb{I}}}
\new unicode char {\mathcal{J}}{\new unicode char {\mathcal{J}}}{\new unicode char {\mathcal{J}}}}
\mbox{\newunicodechar}(\mathcal{K}){\newunicodechar}(K)}
\verb|\newunicodechar{$\mathcal{L}$}{\newunicodechar{$\mathcal{L}$}}|
\mbox{\newunicodechar}{\mathcal{M}}{\newunicodechar}{\mathcal{M}}{\newunicodechar}{\mathcal{M}}{\newunicodechar}{\mathcal{M}}{\newunicodechar}{\mathcal{M}}{\newunicodechar}{\mathcal{M}}{\newunicodechar}{\mathcal{M}}{\newunicodechar}{\newunicodechar}{\mathcal{M}}{\newunicodechar}{\newunicodechar}{\mathcal{M}}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodec
\verb|\newunicodechar{$\mathcal{N}$}{\newunicodechar{\{N\}}}|
\new unicode char {O}{\new unicode char {O}} {\new unicode char {O}} }
\mbox{\newunicodechar}{\mathcal{P}}{\column{P}}
\new unicode char {\it Q}{\new unicode char {\it Q}}{\new unicode char {\it
\mbox{\newunicodechar}{\mathcal{R}}{\column{R}}
\new unicode char \{S\} \{\new unit ode char \{S\}\} \}
\mbox{\newunicodechar}{\mathcal{T}}{\column{T}}
\mbox{\colored} \mbox{\color
\new unicode char \{V\} {\new unicode char \{V\}} \}
\mbox{\newunicodechar}{\mathcal{W}}{\newunicodechar}{\mathbb{W}}}
\mbox{\newunicodechar}(\mathcal{X}){\newunicodechar}(X)
\mbox{\newunicodechar}{\mathcal{Y}}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunico
\new unicode char \{\mathcal{Z}\} \{\new unit ode char \{\mathcal{Z}\}\} \}
```

3 Other letters or letterlike symbols

 $\new unicode char{\ell}{\new unicode char{\ell}}$

4 Greek alphabet

4.1 Normal

```
\mbox{\newunicodechar}{\Delta}{\colored{\Delta}}
\new unicode char \{\epsilon\} \{\new unit ode char \{\epsilon\}\} \}
\ifpdflatex
           \newunicodechar{E}{\ensuremath{E}}}
\else
          \mbox{\codechar}{E}{\codechar}{\codechar}
\fi
\new unicode char {\zeta}{\new unicode char}{\new unicode char}
\ifpdflatex
          \new = \{Z\} \{\new = \{Z\}\} \}
\else
           \fi
\new unicode char {\eta}{\new unicode char {\eta}{\new unicode char {\eta}}}
\ifpdflatex
           \newunicodechar{H}{\ensuremath{H}}}
          \verb|\newunicodechar{H}{\newunicodechar{H}}{\newunicodechar{H}}|
\fi
\verb|\newunicodechar{$\theta$}{\newunicodechar{$\theta$}}|
\new unicode char {\Theta} {\new unicode char {\Theta
\new unicode char \{\iota\} \{\new unit ode char \{\iota\}\} \}
\ifpdflatex
          \mbox{\ensuremath}{I}{\ensuremath}{I}
\else
           \new unicode char{I}{\new unicode char{I}}
\fi
\new nicode char {\kappa}{\new nicode char {\kappa}}{\new nicode char {\kappa}}{\new nicode char {\kappa}}
\ifpdflatex
           \newunicodechar{K}{\ensuremath{K}}
          \new unicode char \{K\} \{\new unimpose \{K\}\} \}
\fi
\new unicode char {\lambda}{\new unicode char {\lambda}}{\new unicode char {\lambda}
\new unicode char {$\Lambda$} {\new unicode char {$\Lambda$}} 
\mbox{\newunicodechar}\{\mu\}{\newunicodechar}\{\mu\}\}
\ifpdflatex
          \new unicode char \{M\} \{\new unimmath \{M\}\} \}
\else
           \mbox{\newunicodechar}{M}{\consuremath}{\Mu}
\fi
\new unicode char \{\nu\} \{\nu\} \}
\ifpdflatex
           \new unicode char{N}{\new unicode char{N}}
\else
          \new unicode char{N}{\new unicode char{N}}
\mbox{\newunicodechar}{\xi}{\newunicodechar}{\chi i}
\mbox{\newunicodechar}{\Xi}{\newunicodechar}{\Xi}{\newunicodechar}
\ifpdflatex
           \new unicode char {o}{\new unicode char {o}}
\else
```

```
\newunicodechar{o}{\ensuremath{\omicron}}}
 \fi
\ifpdflatex
               \newunicodechar{O}{\ensuremath{0}}}
               \newunicodechar{O}{\ensuremath{\Omicron}}}
\fi
 \mbox{\newunicodechar}{\pi}{\consumerath}{\consumerath}
 \mbox{\newunicodechar}{\Pi}{\consuremath}{\Pi}}
 \new unicode char {\rho}{\new unicode char {\rho}}{\new unicode char {\rho}}
\ifpdflatex
                \newunicodechar{P}{\ensuremath{P}}}
 \else
               \new unicode char \{P\} \{\new unimpose Applies Applies
\fi
 \new new nicode char {\sigma}{\new new nicode char {\sigma}{\new new new nicode char {\sigma}}}
 \new unicode char {\Sigma}{\new unicode char {\Sigma}{\new unicode char {\Sigma}}}
 \verb|\newunicodechar{$\tau$}{\newunicodechar{$\tau$}}|
 \ifpdflatex
                \verb|\newunicodechar{T}{\newunicodechar{T}}|
 \else
               \newunicodechar{T}{\newunicodechar{T}}
 \fi
 \verb|\newunicodechar|{v}{\color=0}|
 \mbox{\newunicodechar}{\Upsilon}{\newunicodechar}
 \mbox{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi}{\newunicodechar}{\phi
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 \mbox{\newunicodechar}{\chi}{\c nsuremath}{\c hi}}
\ifpdflatex
                \newunicodechar{X}{\ensuremath{X}}}
               \mbox{\newunicodechar}{X}{\cmath{\Chi}}
 \mbox{\newunicodechar}{\psi}{\newunicodechar}{\psi}{\newunicodechar}{\psi}{\newunicodechar}{\psi}{\newunicodechar}{\psi}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{
 \verb|\newunicodechar{$\Psi$}{\newunicodechar{$\Psi$}}|
 \new unicode char {\omega}{\new unicode char {\omega}{\new unicode char {\omega}}}
 \mbox{\newunicodechar}{\Omega}{\consuremath}
```

4.2 Also: var-variants

incomplete

Note that some of the default Agda input entries are in this list, rather than the default above. Also, varbeta is missing here; it requires a choice of some other package to add support for it.

```
\label{eq:constant} $$\operatorname{\varepsilon}_{\varepsilon}_{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\operatorname{\varepsilon}}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon}^{\varepsilon}_{\varepsilon
```

5 Sub-, Super-, Under-, and Over-scripts

Note that while the alphabetic lists are complete, **there are missing letters**, because unfortunately Unicode does not have characters for every letter subscript and superscript.

5.1 Subscripts

Note there are no uppercase letter subscripts.

5.1.1 Lowercase alphabet

```
\new unicode char \{a\} {\new unicode char \{a\}} 
\newunicodechar{<sub>e</sub>}{\ensuremath{{}_{e}}}}
\newunicodechar{h}{\ensuremath{{}_{h}}}
\new unicode char \{_i\} {\new unicode char \{_i\} \} }
\verb|\newunicodechar{||}{\newunicodechar{||}}| \\
\new unicode char {k}{\new unicode char {k}}{\new unicode char {k}}{\new unicode char {k}}}
\new unicode char \{_l\} {\new unicode char \{_l\} \}}
\verb|\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{|}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodehar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{|}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{||}{\newunicodechar|{|}{\newunicodechar|{|}{\newunicodechar|{|}{\newunicodechar|{|}{\newunicodec
\verb|\newunicodechar{|}_n } {\newunicodechar{|}_n } {\n
\newunicodechar{<sub>o</sub>}{\ensuremath{{}_{o}}}}
\new unicode char {r}{\new unicode char {r}}{\new unicode char {r}
\newunicodechar{s}{\ensuremath{{}_{s}}}
\newunicodechar{<sub>t</sub>}{\ensuremath{{}_{t}}}
\verb|\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{|}{\newunicodechar{||}{\newunicodechar{||}{\newunicodechar{||}{\ne
\verb|\newunicodechar|{||}{v}| \leq math{{||}_{v}}|
\new unicode char {x}{\operatorname{new unicodechar}{x}}
```

5.1.2 Numeric

```
\label{thm:codechar} $$ \operatorname{1}{\operatorname{1}}_{1}} \ \operatorname{1}} \ \operatorname{
```

5.1.3 Other

```
\newunicodechar{_}}{\ensuremath{{}_{+}}}
\newunicodechar{_}}{\ensuremath{{}_{-}}}
\newunicodechar{_}}{\ensuremath{{}_{=}}}
```

5.2 Superscripts

5.2.1 Uppercase alphabet

```
\label{eq:local_abs} $$\operatorname{A}_{\operatorname{A}}(\operatorname{A}_{1}^{A})} $$\operatorname{A}_{1}^{B}} $$\operatorname{A}_{1}^{B}} $$
```

```
\verb|\newunicodechar|^E = \{ \text{ensuremath}_{\{\}}^{E} \} \}
\verb|\newunicodechar| \{G\} \{\newunicodechar| \{G\} \} \}
\new unicode char \{^{H}\} \{\new unicode char \{^{H}\}\} \}
\new unicode char \{^{I}\} \{\new unicode char \{^{I}\}\} \}
\newunicodechar\{J\}{\ensuremath\{\{\}^{J}\}}
\newunicodechar\{K\}{\ensuremath\{\{\}^{K}\}}
\verb|\newunicodechar|{O}| \{ \newunicodechar|{O}| \} \}
\new unicode char \{^P\} \{\new unicode char \{^P\} \} \}
\verb|\newunicodechar|{V}{\newunicodechar}{V}| \\
\mbox{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremath}{\ensuremat
```

5.2.2 Lowercase alphabet

 $\new unicode char {a}{\new unicode char {a}}{\new unicode char {a}}{\new unicode char {a}}}$ $\new unicode char \{^b\} \{\new unicode char \{^b\} \} \}$ $\new unicode char \{^e\} \{\new unimed \{\}^{e}\} \}$ $\new unicode char \{f\} \{\new unit = \{f\}\} \}$ $\new unicode char \{g\} \{\new unit \{g\}\} \}$ $\new unicode char \{^h\} \{\new unicode char \{^h\} \} \}$ $\new unicode char \{i\} \{\new unicode char \{i\}\} \}$ $\new unicode char \{^{l}\} \{\new unicode char \{^{l}\} \}$ $\verb|\newunicodechar|{}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}^m{\newunicodechar}{|}$ $\new unicode char {\it o}{\new unicode char {\it o}{\new$ $\new unicode char \{^p\} \{\new unicode char \{^p\} \} \}$ $\new unicode char \{^r\} \{\new unit math \{\{\}^{r}\}\} \}$ $\new unicode char {s}{\new unicode char {s}}{\new unicode char {s}}}$ $\verb|\newunicodechar| \{^t\} \{\newunited = \{t\}^{t}\} \}$ $\verb|\newunicodechar|{u}{\color=0}| $$ \operatorname{longuremath}{{}{}^{u}} $$$ $\new unicode char \{v\} \{\new unit \{\}^{v}\} \}$ $\new unicode char \{x\} \{\new unimpose x\} \}$ $\new unicode char \{y\} \{\new unit ode char \{y\}\} \}$ $\new unicode char{z}{\new unicode char{z}}{\new unicode char{z}}}$

5.2.3 Numeric

```
\label{thm:codechar} $$\operatorname{t}{\{}^{5}} \ \operatorname{th}{\{}^{5}} \ \operatorname{th}{\{}^{6}} \ \operatorname{th}{\{}^{6}} \ \operatorname{th}{\{}^{7}} \ \operatorname{th}{\{}^{7}} \ \operatorname{th}{\{}^{7}} \ \operatorname{th}{\{}^{7}} \ \operatorname{th}{\{}^{7}} \ \operatorname{th}{\{}^{8}} \ \operatorname{th}{\{}^{8}} \ \operatorname{th}{\{}^{8}} \ \operatorname{th}{\{}^{9}} \ \operatorname{th}{
```

5.2.4 Other

```
\newunicodechar{+}{\ensuremath{{}^{+}}}
\newunicodechar{-}{\ensuremath{{}^{-}}}
\newunicodechar{=}{\ensuremath{{}^{=}}}
```

6 Punctuation and Delimiters

6.1 Dots

```
\newunicodechar{...}{\ensuremath{\ldots}}
\newunicodechar{...}{\ensuremath{\cdots}}
\newunicodechar{;}{\ensuremath{\vdots}}
```

6.2 Dashes

```
\newunicodechar{-}{\ensuremath{\text{--}}}
\newunicodechar{--}{\ensuremath{\text{---}}}
```

6.3 Parentheses, braces and brackets

Note there are a few different braces I translate the same way. Braces and parentheses themselves are special characters in Agda, so they cannot be used in names.

```
\newunicodechar{||}{\ensuremath{(\!|)}}
\newunicodechar{||}{\ensuremath{\|\!|)}}
\newunicodechar{||}{\ensuremath{\|\rangle}}
\newunicodechar{||}{\ensuremath{\|\rangle}}
\newunicodechar{||}{\|\ensuremath{\|\mid\|\!\}}}
\newunicodechar{||}{\|\ensuremath{\|\rangle\|\!\|\rangle}}\
\newunicodechar{||}{\|\ensuremath{\|\rangle\|\!\|\rangle}}\
\newunicodechar{||}{\|\ensuremath{\|\f\|\}}\
\newunicodechar{||}{\|\ensuremath{\|\f\|\}}\
\newunicodechar{||}{\|\ensuremath{\|\f\|\}}\
\newunicodechar{||}{\|\ensuremath{\|\f\|\}}\
\newunicodechar{||}{\|\ensuremath{\|\f\|\}}\
\newunicodechar{||}{\|\ensuremath{\|\f\|\}}\
\newunicodechar{||}{\|\ensuremath{\|\f\|\}}\
\newunicodechar{||}{\|\ensuremath{\|\f\|\}}\
\newunicodechar{||}{\|\ensuremath{\|\f\|\}\}}\
```

6.4 Other paired delimiters

```
\newunicodechar{|}{\ensuremath{\lfloor}}
\newunicodechar{|}{\ensuremath{\rfloor}}
```

6.5 Whitespace

Non-breaking space. Though it may appear as a normal space, it is in fact a ~ in the LATEX —in classic LATEX one writes \,.

```
\newunicodechar{ }{\ensuremath{~}}}
```

I am a very long line whose words are separated by non-breaking spaces so I should run off the page at least at any reaso

7 Logic

7.1 Prepositional

7.2 Predicate

7.3 Model —Entailment

```
\newunicodechar{\\-}{\ensuremath{\vdash}}
\newunicodechar{\\-}{\ensuremath{\dashv}}
\newunicodechar{\\-}{\ensuremath{\vDash}}}
```

8 Sets, relations and functions

8.1 Sets

```
\label{thm:post} $$ \operatorname{dechar}{\emptyset}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densuremath}_{\operatorname{densurem
```

8.2 Relation operators

```
\label{thm:linear} $$\operatorname{T}{\operatorname{top}} \rightarrow \operatorname{top}} $$\operatorname{L}_{\operatorname{top}} \rightarrow \operatorname{L}_{\operatorname{top}} \rightarrow \operatorname{L}_{\operatorname{top}} $$\operatorname{Codechar}_{\operatorname{L}_{\operatorname{top}}} \rightarrow \operatorname{L}_{\operatorname{top}} $$\operatorname{Codechar}_{\operatorname{top}} \rightarrow \operatorname{L}_{\operatorname{top}} $$\operatorname{Codechar}_{\operatorname{top}} \rightarrow \operatorname{L}_{\operatorname{top}} $$\operatorname{Codechar}_{\operatorname{top}} \rightarrow \operatorname{L}_{\operatorname{top}} $$\operatorname{Codechar}_{\operatorname{top}} $$
```

8.3 Function operators

8.4 Relations

8.4.1 Equality like

Along with negations where they exist. Note that equivalences are within the 7 section.

8.4.2 Order like

```
\newunicodechar{\leq}}\ensuremath{\leq}}
\newunicodechar{$\\delta\}{\ensuremath{\nleq}}}
\newunicodechar{\geq}}\ensuremath{\geq}}
\newunicodechar{$\tau\}{\ensuremath{\nless}}}
\newunicodechar{≯}{\ensuremath{\ngtr}}
\newunicodechar{\leqq}}
\mbox{\newunicodechar} {\newunicodechar} \
\newunicodechar{≥}{\ensuremath{\geqq}}}
\newnicodechar{\geq}{\newnicodechar{\geq}}{\newnicodechar{\geq}}
\newunicodechar{≲}{\ensuremath{\lesssim}}}
\newunicodechar{≳}{\ensuremath{\gtrsim}}
\newunicodechar{□}{\ensuremath{\sqsubset}}
\newunicodechar{\( \sqrubseteq\) }
\newunicodechar{□}{\ensuremath{\sqsupset}}
\newunicodechar{□}{\ensuremath{\sqsupseteq}}
\newunicodechar{|}{\ensuremath{\mid}}
```

9 Generic or other operators

9.1 Arrows

9.2 "o"-operators

Agda users invoke $\setminus ox$ and $\setminus 0x$.

The "directed aggregation" operator \hookrightarrow is obtained with the Agda input method using \r .

```
\label{longrightarrowhspace} $$ \operatorname{\mathbb{C}}(Compose)_{\longrightarrowhspace_{-3.5ex}\circ;} \ensuremath_{\!\VCCompose}$$
```

9.3 Punctuation-like

The ':' below is a "ghost colon" that Agda users enter with \:. Its function is to provide an identifier that looks like a colon, but is not a colon —which is a reserved syntactical item in Agda. Main uses of the ghost colon are for quantifier notation to indicate the type of dummy variables.

• We almost always want to display it as a normal colon.

```
\newunicodechar{!}}{\ensuremath{!\!!}}
\newunicodechar{:}{\ensuremath{:}}
```

9.4 Others

Probably some of these belong somewhere else.

```
\newunicodechar{::}{\ensuremath{::}}
\else
  \newunicodechar{::}{\ensuremath{\Colon}}
\fi
```

10 Check- & X-marks, and Primes & Ticks

10.1 Check- and X-marks

11 TODO Misc

```
\newunicodechar{ }{\ensuremath{^{..}}}}
\newunicodechar{CONVERSE}{CONVERSE}
\mbox{\colored} \mbox{\color
% +latex_header: \newunicodechar{}{\ensuremath{QED}}}
\newunicodechar{0}{\ensuremath{\circ}}
\mbox{\codechar}{SHARP}{\consumerath}{SHARP}
\newunicodechar{'}{\ensuremath{'}}
% Agda: \Mix
    \newunicodechar{p}{p}
    \newunicodechar{a}{a}
    \newunicodechar{r}{r}
    \newunicodechar{e}{e}
    \newunicodechar{n}{n}
    \newunicodechar{t}{t}
    \newunicodechar{m}{m}
    \newunicodechar{1}{1}
    \newunicodechar{s}{s}
    \newunicodechar{o}{o}
    \newunicodechar{f}{f}
```