Unicode declarations for LATEX documents

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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 pre-installed 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

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-op
\newif\ifpdflatex
\iffitetex
\pdflatexfalse
\else
\iffutatex
\pdflatexfalse
\else
\pdflatextrue
\fi
\fi
\fi
\text{fi}

\text{newif}\ifpdflatex
\pdflatextrue
\ffi
\text{To use other typesetting engines, declare the following:}

\text{\pdflatexfalse}
\end{align*
```

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

```
\ifpdflatex
  \usepackage{pifont}
  \usepackage{stmaryrd}
  \usepackage{amsmath, amssymb, amsthm, latexsym, amscd, enumerate, bbm, etex, nicefrac, mathrsfs}
\else
  \usepackage{unicode-math}
\fi
```

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

 $\label{lem:decomposition} $$ \end{are MathAlphabet} \end{are MathAlphabet} $$ \end{are MathAlphabet} $$$ \end{are MathAlphabet} $$$ \end{are MathA$

2.1 Blackboard

2.1.1 Lowercase Latin

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

```
\fi
\ifpdflatex
 \else
 \fi
\ifpdflatex
 \newunicodechar{e}{\ensuremath{\mathbbm{e}}}
 \newunicodechar{@}{\ensuremath{\mathbb{e}}}}
\fi
\ifpdflatex
 \else
 \newunicodechar{f}{\ensuremath{\mathbb{f}}}}
\fi
\ifpdflatex
 \newunicodechar{g}{\ensuremath{\mathbbm{g}}}}
 \newunicodechar{g}{\ensuremath{\mathbb{g}}}}
\fi
\ifpdflatex
 \mbox{\newunicodechar}{h}{\consumerath{\mbb{h}}}
\fi
\ifpdflatex
 \newunicodechar{i}{\ensuremath{\mathbbm{i}}}
\else
 \newunicodechar{i}{\ensuremath{\mathbb{i}}}
\fi
\ifpdflatex
 \newunicodechar{j}{\ensuremath{\mathbbm{j}}}}
 \newunicodechar{j}{\ensuremath{\mathbb{j}}}}
\fi
\ifpdflatex
 \mbox{\newunicodechar}_{k}{\newunicodechar}_{k}}
\fi
\ifpdflatex
 \else
 \mbox{l}{\ensuremath{\mathbb{1}}}
\fi
\ifpdflatex
 \else
 \newunicodechar{m}{\ensuremath{\mathbb{m}}}}
\fi
\ifpdflatex
```

```
\newunicodechar{n}{\ensuremath{\mathbbm{n}}}
\else
 \fi
\ifpdflatex
 \newunicodechar{0}{\ensuremath{\mathbbm{o}}}}
\else
 \newunicodechar{0}{\ensuremath{\mathbb{0}}}}
\fi
\ifpdflatex
 \label{lem:p} $$\operatorname{p}{\operatorname{mathbom}\{p\}}$
 \fi
\ifpdflatex
 \label{eq:lemmath} $$\operatorname{q}{\operatorname{q}}{\operatorname{mathbbm}_{q}}$$
 \fi
\ifpdflatex
 \mbox{newunicodechar}{r}{\mbox{newunicodechar}{r}}
 \mbox{newunicodechar}{r}{\mbox{newunicodechar}}
\fi
\ifpdflatex
 \newunicodechar{s}{\ensuremath{\mathbbm{s}}}
 \newunicodechar{s}{\ensuremath{\mathbb{s}}}}
\fi
\ifpdflatex
 \newunicodechar{t}{\ensuremath{\mathbbm{t}}}
\else
 \fi
\ifpdflatex
 \mbox{\newunicodechar}\{u\}{\newunicodechar}\{u\}\}
\else
 \mbox{\newunicodechar}\{u\}{\newunicodechar}\{u\}\}
\fi
\ifpdflatex
 \fi
\ifpdflatex
 \fi
\ifpdflatex
 \newunicodechar{x}{\ensuremath{\mathbbm{x}}}
\else
```

```
\label{thm:property:constraint} $$ \left( x^{x} \right) $$ iipdflatex $$ \left( x^{y} {\operatorname{mathbb}\{y\}} \right) $$ iese $$ \operatorname{mathbb}\{y^{y}\} $$ ifpdflatex $$ \operatorname{mathbb}\{y^{y}\} $$ ifpdflatex $$ \operatorname{mathbbm}\{z^{y}\} $$ else $$ \operatorname{mathbbm}\{z^{y}\} $$ iese $$ \operatorname{mathbbm}\{z^{y}\} $$ inewunicodechar\{z^{y}$$ iensuremath\{\operatorname{mathbbm}\{z^{y}\}\} $$ iese $$ \operatorname{mewunicodechar}\{z^{y}$$ iensuremath\{\operatorname{mathbb}\{z^{y}\}\} $$ ifi $$ iensuremath\{\operatorname{mathbb}\{z^{y}\}\} $$ iese $$ \operatorname{mewunicodechar}\{z^{y}\}$$ iensuremath\{\operatorname{mathbb}\{z^{y}\}\} $$ iensuremath
```

2.1.2 Uppercase Latin

```
\mbox{\newunicodechar}{A}{\c mathbb{A}}
 \mbox{\newunicodechar}{\mathbb{B}}{\newunicodechar}{\mathbb{B}}}
 \mbox{\colored} \mbox{\color
 \mbox{\codechar}{\mathbb{D}}{\codechar}{\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{F}}{\newunicodechar}{\mathbb{F}}}
 \mbox{\codechar}{\mathbb{G}}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\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
 \newunicodechar{||}{\ensuremath{\mathbb{I}}}}
 \newunicodechar{J}{\ensuremath{\mathbb{J}}}}
 \mbox{\newunicodechar}(\mathbb{K}){\newunicodechar}(\mathbb{K})
 \mbox{\newunicodechar}{\cline{L}}{\cline{L}}}
 \newunicodechar{M}{\ensuremath{\mathbb{M}}}
 \mbox{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}
 \new unicode char {0}{\new unicode char {0}}{\new unicode char {0}}}
 \mbox{\codechar}{\P}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}
 \new unicode char \{R\}{\new unicode char \{R\}}\}
 \newunicodechar{\S}{\ensuremath{\mathbb{\S}}}}
 \mbox{\newunicodechar}{T}{\color{T}}}
 \mbox{\newunicodechar}{\ensuremath}{\mbox{\mathbb}{U}}}
 \mbox{\newunicodechar}{\wbsymbol{V}}{\newunicodechar}{\normath{\mbsymbol{V}}}
 \mbox{\newunicodechar}{\w}_{\newunicodechar}{\hbb}{\hb}
 \mbox{\newunicodechar}{X}{\c mathbb{X}}
 \newunicodechar{\mathbb{\gamma}}\ensuremath{\mathbb{\gamma}}}
 \mbox{\newunicodechar}{\mathbb{Z}}{\newunicodechar}{\mbox{\newunicodechar}}
```

2.1.3 Arabic Numerals

```
% For double stroke digits with pdflatex
\usepackage[bbgreek1] {mathbbol}
\DeclareSymbolFontAlphabet{\mathbbl}{bbold}

\ifpdflatex
\newunicodechar{1}{\ensuremath{\mathbbl}{1}}}
\else
\newunicodechar{1}{\ensuremath{\mathbbl}{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}}}
\else
      \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}{\newunicodechar}{\newunicodechar}{\normath{\mbbl{7}}}
      \new unicode char {\it T}{\new unicode char {\it T}{\new unicode char {\it T}}} \new unicode char {\it T}{\new unicode char {\it T}}{\new unicode char {\it 
\fi
\ifpdflatex
      \newunicodechar{8}{\ensuremath{\mathbbl{8}}}
      \newunicodechar{8}{\ensuremath{\mathbb{8}}}}
\fi
\ifpdflatex
      \newunicodechar{\mathbbl{9}}}
      \newunicodechar{\mathbb{9}}}
\fi
\ifpdflatex
      \new unicode char {\tt 0}{\tt new unicode char {\tt 0}{\tt new unicode char {\tt 0}}}
\else
      \newunicodechar{0}{\ensuremath{\mathbb{0}}}}
\fi
2.2
                 Calligraphic
2.2.1 Lowercase Latin
\ifpdflatex
      \new new nicode char{a}{\operatorname{a}}{\operatorname{a}}
\else
```

```
\new unicode char{a}{\operatorname{a}}{\operatorname{mathcal}\{a\}}}
\fi
\ifpdflatex
              \new unicode char \{b\} \{\new unicode char \{b\}\} \}
              \new unicode char \{b\} \{\new unit code char \{b\}\} \}
\fi
\ifpdflatex
              \new unicode char \{c\} \{\new unimpose char \{c\}\} \}
              \new unicode char \{c\} \{\new unit code char \{c\}\}\}\
\fi
\ifpdflatex
              \verb|\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newunicodechar{|}d}{\newu
\else
              \verb|\newunicodechar{|}d}{\newunicodechar{d}}|
\fi
\ifpdflatex
              \new unicode char{e}{\new unicode char{e}}
              \new unicode char \{e\} \{\new unit code char \{e\}\}\}
\fi
\ifpdflatex
              \new unicode char{f}{\new unicode char{f}}
              \new unicode char{f}{\new unicode char{f}}{\new unicode char{f}}
\fi
\ifpdflatex
              \new unicode char \{g\} \{\new unimpose g\} \}
              \new unicode char \{g\} \{\new unit ode char \{g\} \} \}
\fi
\ifpdflatex
              \new unicode char{h}{\new unicode char{h}}
\else
              \new unicode char\{h\}\{\new unicode char\{h\}\}\}\
\fi
\ifpdflatex
              \newunicodechar{i}{\ensuremath{i}}}
              \new unicode char \{i\} \{\new unit code char \{i\} \} \}
\fi
\ifpdflatex
              \new unicode char {j}{\new unicode char {j}}
              \mbox{\colored} \mbox{\color
\fi
\ifpdflatex
              \new unicode char {j}{\new unicode char {j}}
              \new unicode char \{j\} \{\new unit code char \{j\} \} \}
\fi
```

```
\ifpdflatex
           \new unicode char \{l\} \{\new unimpose \{1\}\} \}
           \new unicode char \{l\} {\tt \new unicode char} \{l\} {\tt \new unicode char
\fi
\ifpdflatex
           \verb|\newunicodechar|{m}{\newunicodechar}{m}| \\
           \fi
\ifpdflatex
           \verb|\newunicodechar{n}{\newunicodechar{n}}|
\else
           \mbox{\codechar}{n}{\codechar}{n}
\fi
\ifpdflatex
           \newunicodechar{o}{\ensuremath{o}}}
\else
           \new unicode char {o}{\new unicode char {o}{\new unicode char {o}}}
\fi
\ifpdflatex
           \new unicode char \{p\} \{\new unimpose p\} \}
           \new unicode char \{p\} \{\new unicode char \{p\}\}\}\
\fi
\ifpdflatex
           \new unicode char{q}{\operatorname{q}}{\operatorname{msuremath}{q}}
           \new unicode char \{q\} \{\new unit ode char \{q\}\} \}
\fi
\ifpdflatex
           \new unicode char\{r\}\{\new unicode char\{r\}\}\}\
           \new unicode char\{r\}\{\new unicode char\{r\}\}\}\
\fi
\ifpdflatex
           \new unicode char \{s\} \{\new unimpose shape sha
           \new unicode char \{s\} {\new unicode char \{s\}} 
\fi
\ifpdflatex
           \verb|\newunicodechar|{t}{\newunicodechar}{t}| \\
\else
           \verb|\newunicodechar|{t}{\newunicodechar}{t}| \\
\fi
\ifpdflatex
           \new unicode char \{u\} \{\new unicode char \{u\}\} \}
           \verb|\newunicodechar{|u|}{\newunicodechar{|u|}}|
\fi
\ifpdflatex
           \new unicode char\{v\}\{\new unicode char\{v\}\}\}\
```

```
\else
                        \new unicode char \{v\} {\new unicode char \{v\}} \}
\fi
\ifpdflatex
                      \new unicode char\{w\}\{\new unimed w\}\}\
                      \mbox{\newunicodechar}\{w\}{\mbox{\newunicodechar}\{w\}}\}
\fi
\ifpdflatex
                      \new = x {\new = x} {\new = x} 
                      \mbox{\newunicodechar}{x}{\newunicodechar}{x}}
\fi
\ifpdflatex
                      \newunicodechar{y}{\ensuremath{y}}}
                      \mbox{\newunicodechar}{y}{\columnwidth}
\fi
 \ifpdflatex
                      \verb|\newunicodechar{|z|}{\newunicodechar{|z|}}|
 \else
                      \mbox{\codechar}{z}{\codechar}{z}}
 \fi
2.2.2
                                                                          Uppercase Latin
 \mbox{\newunicodechar}{A}{\c nsuremath}{\mbox{\mathcal}{A}}
 \mbox{\codechar}{B}{\codechar}{B}
 \mbox{\codechar}{C}{\codechar}{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
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2.3 Bold-font

2.3.1 Lowercase Latin

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2.3.2 Uppercase Latin

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2.4 Bold Calligraphic

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2.4.1 Lowercase Latin

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2.4.2 Uppercase Latin

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\mbox{\codechar}{\mathcal{P}}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\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{R}}{\newunicodechar}{\mathbb{R}}}
\mbox{\codechar}{S}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\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}{\mathcal{T}}{\newunicodechar}{\mathcal{T}}{\newunicodechar}{\mathcal{T}}}
\mbox{\colored} \mbox{\color
\mbox{\codechar}{V}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{\codechar}{
\verb|\newunicodechar{$\mathcal{W}$}{\newunicodechar{$\mathcal{W}$}}|
\verb|\newunicodechar{$\mathcal{X}$}{\newunicodechar{$X$}}|
\new unicode char \{ \mathcal{Y} \} \{ \new unit ode char \{ Y \} \} \}
\mbox{\codechar}{Z}{\codechar}{\lambda}
```

3 Other letters or letterlike symbols

4 Greek alphabet

4.1 Normal

```
\new unicode char \{\alpha\} \{\new unit math \{\alpha\}\}\
\ifpdflatex
   \new new nicode char {A}{\new new nicode char {A}}
\else
   \new unicode char {A}{\new unicode char {A}}{\new unicode char {A}}{\new unicode char {A}}
\fi
\verb|\newunicodechar{$\beta$}{\newunicodechar{$\beta$}}|
\ifpdflatex
   \verb|\newunicodechar|{B}{\newunicodechar}{B}| \\
\else
   \new unicode char \{B\} \{\new unicode char \{B\}\} \}
\new unicode char \{\gamma\} \{\new unit math \{\new unit math \}\}\
\mbox{\newunicodechar}{\Gamma}{\newunicodechar}
\new unicode char {\delta}{\new unicode char {\delta}}{\new unicode char {\delta}}
\mbox{\newunicodechar}{\Delta}{\consuremath}
\new unicode char {\epsilon}{\new unicode char {\epsilon}}{\new unicode char {\epsilon}}
\ifpdflatex
   \new unicode char \{E\} \{\new unicode char \{E\}\} \}
\else
   \mbox{\newunicodechar}{E}{\newunicodechar}
\new nicode char {\zeta}{\new new nicode char {\zeta}{\new new nicode char {\zeta}}}
\ifpdflatex
   \new unicode char \{Z\} \{\new unicode char \{Z\}\} \}
   \new unicode char \{Z\} \{\new unit ode char \{Z\}\} \}
```

```
\fi
 \new new nicode char {\eta}{\new new nicode char {\eta}{\new new new nicode char {\eta}}{\new new nicode char {\eta}}{\new new nicode char {\eta}}{\new nicode char {\eta}
\ifpdflatex
                 \mbox{\ensuremath{H}}{\ensuremath{H}}
 \else
                 \new unicode char \{H\} \{\new unimpose AH\} \{\new un
\fi
 \new unicode char \{\theta\} \{\new unicode char \{\theta\}\} \}
 \new unicode char {\Theta}{\new unicode char {\Theta}} {\new u
 \new unicode char \{\iota\} \{\new unit ode char \{\iota\}\} \}
\ifpdflatex
                 \new unicode char \{I\} \{\new unicode char \{I\}\} \}
 \else
                 \new unicode char \{I\} \{\new unimpose A \{I\} \} \}
\fi
 \new new nicode char {\kappa}{\new new nicode char {\kappa}{\new new new nicode char {\kappa}}}
 \ifpdflatex
                 \verb|\newunicodechar{K}{\newunicodechar{K}}| \\
 \else
                 \new unicode char \{K\} \{\new unit ode char \{K\} \}\}
\fi
 \new new nicode char {\lambda}{\new new nicode char {\lambda}{\new new new nicode char {\lambda}}{\new new nicode char {\lambda}}{\new new nicode char {\lambda}}{\new nicode char {\lambda}
 \mbox{\newunicodechar}{\Lambda}{\consuremath{\Lambda}}
 \mbox{\newunicodechar}{\mu}{\consuremath}{\mu}}
\ifpdflatex
                 \verb|\newunicodechar{|M|}{\newunicodechar{M}}|
 \else
                 \fi
 \verb|\newunicodechar{$\nu$}{\nu}| \\
 \ifpdflatex
                 \new new nicode char{N}{\new new nicode char{N}}
 \else
                 \new unicode char{N}{\new unicode char{N}}
\fi
 \new unicode char \{\xi\} \{\new unit (xi)\}
 \newunicodechar{\(\Xi\)}
 \ifpdflatex
                 \newunicodechar{o}{\ensuremath{o}}}
\else
                 \newunicodechar{o}{\ensuremath{\omicron}}}
\fi
\ifpdflatex
                 \new unicode char {O}{\new unicode char {O}}
                 \new unicode char {O}{\new unicode char {O}{\new unicode char {O}}}
 \mbox{\ensuremath{\langle pi \rangle}}
 \mbox{\newunicodechar}{\Pi}{\newunicodechar}{\Pi}
 \new new nicode char {\rho}{\new new nicode char {\rho}{\new new new nicode char {\rho}}}
 \ifpdflatex
```

```
\else
             \fi
\new unicode char {\sigma}{\new unicode char {\sigma}{\new unicode char {\sigma}}}
\verb|\newunicodechar{$\Sigma$}{\newunicodechar{$\Sigma$}}|
\mbox{\ensuremath{\tau}}
\ifpdflatex
             \new unicode char \{T\} \{\new unicode char \{T\}\} \}
             \mbox{\ensuremath{\Tau}}
\fi
\new unicode char \{v\} {\new unicode char \{v\} \{\new unicode char \{v\} \}\} \}
\mbox{\newunicodechar}{\Upsilon}{\consuremath}{\consuremath}
\new unicode char {\phi}{\new unicode char {\phi}}{\new unicode char {\phi}
\mbox{\newunicodechar}{\Phi}{\consuremath}{\consuremath}
\mbox{\newunicodechar}{\chi}{\cmath{\chi}}
\ifpdflatex
             \verb|\newunicodechar{X}{\newunicodechar{X}}| \\
\else
             \mbox{\newunicodechar}{X}{\cmath{\Chi}}
\fi
\mbox{\newunicodechar}{\psi}{\consuremath}{\consuremath}{\consuremath}{\consuremath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\consumerath}{\c
\mbox{\newunicodechar}{\Psi}{\consuremath}{\consuremath}
\newunicodechar{\omega}{\ensuremath{\omega}}
\new new nicode char {\Omega}{\new new nicode char {\Omega}{\new new new nicode char {\Omega}}}
```

4.2 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{thm:codechar} $$\operatorname{\varepsilon}_{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\varepsilon}}^{\operatorname{\varepsilon}}_{\operatorname{\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

5.1.2 Numeric

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

5.1.3 Other

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

5.2 Superscripts

5.2.1 Uppercase alphabet

```
\new unicode char {A}{\new unicode char {A}}{\new unicode char {A}}}
\verb|\newunicodechar|{B}{\newunicodechar}{B}| \\
\new unicode char \{^D\} \{\new unicode char \{^D\}\} \}
\newunicodechar\{E\}{\ensuremath\{\{\}^{E}\}}
\new unicode char \{G\} \{\new unicode char \{G\} \} \}
\new unicode char \{^{H}\} \{\new unicode char \{^{H}\}\} \}
\new unicode char \{^I\} \{\new unicode char \{^I\} \} \}
\newunicodechar\{J\}{\ensuremath\{\{\}^{J}\}}
\new unicode char \{K\} \{\new unicode char \{K\} \} \}
\new unicode char \{^{M}\} \{\new unicode char \{^{M}\}\} \}
\new unicode char {N}{\ensuremath {\{\}^{N}\}}
\label{lem:codechar} $$ \operatorname{C}_{\operatorname{C}}(\operatorname{C}_{\mathcal{C}}) = \operatorname{C}_{\operatorname{C}}^{O} $$
\verb|\newunicodechar|{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\newunicodechar}{P}{\n
\mbox{\ensuremath}{\{}\mbox{\ensuremath}{\{}\mbox{\ensuremath}{\{}\mbox{\ensuremath}{\{}\mbox{\ensuremath}{\{}\mbox{\ensuremath}{\}}\mbox{\ensuremath}{\}}
```

```
\label{eq:local_local_state} $$\operatorname{U}_{\operatorname{V}}(\operatorname{L}^{U})} $$\operatorname{L}^{V}_{\operatorname{U}}^{V}} $$\operatorname{L}^{V}_{\operatorname{U}}^{W}} $$
```

5.2.2 Lowercase alphabet

```
\new unicode char \{^b\} \{\new unit (\{\}^{b})\} \}
\new unicode char \{d\} \ensuremath \{\{\}^{d}\}\}
\new unicode char \{e\} \{\new unimpose e \} \}
\new unicode char \{f\} \{\new unit f \} \}
\new unicode char \{g\} \{\new unimpose for each of the following the following that the following the following that the following the following the following that the following the follow
\new unicode char \{i\} \{\new unit ode char \{i\} \} \}
\new unicode char \{j\} \{\new unicode char \{j\} \} \}
\new unicode char \{^k\} \{\new unit math \{ \}^{k} \} \}
\new unicode char {\it o} {\tt lensuremath} {\it o} 
\new unicode char \{^p\} \{\new unicode char \{^p\} \} \}
\new unicode char \{^r\} \{\new unicode char \{^r\} \} \}
\new unicode char \{^t\} \{\new unit \{\}^{t}\} \}
\new unicode char \{u\} \{\new unit \{u\} \} \}
\new unicode char \{x\} {\new unicode char \{x\} \}}
\new unicode char \{z\} \ensuremath \{z\} \}
```

5.2.3 Numeric

 $\label{thm:codechar} $$\operatorname{l}_{\ensuremath}_{?\{1\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{1\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{2\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{2\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{3\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{4\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{4\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{5\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{6\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{7\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{7\}} \rightarrow \operatorname{l}_{\ensuremath}_{?\{7\}} \rightarrow \operatorname{l}_{\ensuremath}_{\{1\}^{8}\}} \rightarrow \operatorname{l}_{\ensuremath}_{\{1\}^{8}} \rightarrow \operatorname{l}_{\ensuremath}_{\{1\}^{8}} \rightarrow \operatorname{l}_{\ensuremath}_{\{1\}^{8}\}} \rightarrow \operatorname{l}_{\ensuremath}_{\{1\}^{8}} \rightarrow \operatorname{l}_{\ensuremath}_{\{1\}^{8}\}}$

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.

6.4 Other paired delimiters

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 reason

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:codechar} $$ \operatorname{\emptyset}_{\operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}}} \rightarrow \mathbb{C}^{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $$ \operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} \rightarrow \mathbb{C}^{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $$ \operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} \rightarrow \mathbb{C}^{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $$ \operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $$ \operatorname{\mathbb{Q}} $$ \operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $$ \operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $$ \operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $$ \operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $$ \operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $$ \operatorname{\mathbb{Q}}_{\operatorname{\mathbb{Q}}} $
```

8.2 Relation operators

```
\newunicodechar{\\T}{\ensuremath{\top}}
\newunicodechar{\\T}{\ensuremath{\bot}}
\newunicodechar{\\T}{\ensuremath{\sqcup}}
\newunicodechar{\\T}{\ensuremath{\sqcap}}
\newunicodechar{\\T}{\ensuremath{\backslash}}
\newunicodechar{\\T}{\ensuremath{\T}}
```

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{ \( \frac{\psi}{\ensuremath{\nleq}}\)
\newunicodechar{>}{\ensuremath{\geq}}}
\newunicodechar{\(\neq\)}{\ensuremath{\ngeq}}}
\newunicodechar{$\text{\ensuremath{\nless}}}
\newunicodechar{≯}{\ensuremath{\ngtr}}
\mbox{\ensuremath{\leqq}} \
\newunicodechar{\(\(\neq\)\)}}\ensuremath{\lneqq}}
\mbox{\ensuremath{\ensuremath{\geqq}}}
\newunicodechar{\(\geq\)}}\ensuremath{\gneqq}}
\newunicodechar{$< $} {\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar}{\newunicodechar
\newunicodechar{\geq}{\ensuremath{\gtrsim}}
\newunicodechar{□}{\ensuremath{\sqsubset}}
\newunicodechar{\Box\} \left\{\sqsupset\}}
\newunicodechar{|}{\ensuremath{\mid}}
```

9 Generic or other operators

9.1 Arrows

9.2 "o"-operators

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

```
\label{thm:codechar} $$ \operatorname{\oplus}{\operatorname{\cdots}} \ensuremath{\operatorname{\cdots}} \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}
```

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

```
\DeclareMathOperator{\VCCompose}{\longrightarrow\hspace{-3.5ex}\oplus\;} \newunicodechar{\(\oplus\)}{\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{\cdot}}
\newunicodechar{\infty}}
\ifpdflatex
  \newunicodechar{\cdot:}{\ensuremath{\cdot:}}
\else
  \newunicodechar{\cdot:}{\ensuremath{\cdot:}}
\fi
```

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

```
\newunicodechar{\sqrt{\sqrt{\ensuremath{\checkmark}}}
\newunicodechar{\cdot\sqrt{\ensuremath{\times}}}
\newunicodechar{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sqrt{\cdot\sq
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