KKsymbols Package Documentation

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Version 1.0.4 (2025/10/18)

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1 Acknowledgements / Credit

In developing this package, I made extensive use of the advice I received from Yusuke Terada.

2 Installation

Place KKsymbols.sty in a directory where LaTeX can find it, e.g., your local texmf tree or alongside your document.

Dependencies:

- LuaLaTeX-ja
- tikz
- clac

Load the package:

\usepackage{KKsymbols}

3 Caution

Since this package internally calls \ltjghostbeforejachar and \ltjghostafterjachar, it can be used only in a LuaLaTeX environment.

4 Commands

4.1 The maru series

This package provides \maru, \kuromaru, and \nmaru. Each of them takes one mandatory argument and no optional arguments. You can pass strings of any length and in any font as arguments. However, using lowercase letters as arguments is not recommended.

They are used as follows.

表 1: maru series

| argument | \maru | \kuromaru | \nmaru |
|----------|--------------------|-----------|------------|
| 1 | 1 | 0 | |
| 97 | 97) | 97 | 9 7 |
| だ | Œ | 19 | (E) |
| ばばば | (1.0.1) (1.0.1) | | |

They behave as if they were single kanji or hiragana characters:

The spacing between \maru and other characters is adjusted using \ltjghostbeforejachar and \ltjghostafterjachar so that it behaves like hiragana or kanji.

Naturally, these commands also work correctly in vertical writing environments.

When changing the font size using commands such as \Large, each command is scaled proportionally according to the font size change:



You can also change the current font:



4.1.1 Lowercase letters and "Q"

As mentioned earlier, using lowercase letters as arguments for this macro is not recommended. However, it is not entirely impossible if you really want to do so.

▶ Multiple strings which include characters with descenders

This package provides two commands, \dccare and \ndccare. Characters with descenders, such as g or Q, can be handled using \dccare{g}, while characters without descenders can be handled using \ndccare{a}. When \maru (or the like) accepts

multiple strings as an argument, and there are characters with descenders among them, treat them as shown below:

\maru{\dccare{g}}\maru{\dccare{j}}\maru{\dccare{jj}}\\
maru{\ndccare{a}}
\maru{\dccare{j}\maru{A\dccare{j}}\\
maru{\dccare{j}}\maru{A\dccare{j}}\\
maru{\dccare{a}}
\maru{\dccare{a}}

⊳ Single string which includes a descender

In this case, use the special command \slowcare and handle it as follows.

\maru{\slowcare{a}}...\maru{\slowcare{g}}...

Among uppercase alphabetic characters, **Q** is the only one that has a descender. In this case, you should use \dccare in **ANY** case.

\maru{\dccare{Q}}\maru{\dccare{QQQ}}\maru{\dccare{Q}.12}



(jbj) (bg) (Aj) (Ha)

4.2 Others

For certain fonts, the characters may still extend beyond the frame even with these adjustments. In such cases, use commands like \scalebox or \raisebox to adjust them as needed.

5 The seihou series

The commands introduced below are used in exactly the same way as the maru series.

表 2: seihou series

| argument | \seihou | \kuroseihou |
|----------|----------------------|-------------|
| 1 | 1 | 1 |
| 97 | 97 | 97 |
| だ | だ | だ |
| ばばば | 13 13 13 10 10 10 | 131313 |

表 3: seimaru series

| argument | \seimaru | \kuroseimaru |
|----------|----------|--------------|
| 1 | 1 | 1 |
| 97 | 97 | 97 |
| だ | だ | だ |
| ばばば | | uu |

表 4: hishi series

| argument | \hishi | \kurohishi | urohishi \maruhishi \kuromar | |
|----------|------------|------------|------------------------------|----------|
| 1 | 1> | • | 1> | • |
| 97 | ∮ 7 | 9 | 97 | • |
| だ | \E | • | E | * |
| ばばば | | • | | |

Examples with lowercase alphabet characters are additionally provided.

 $\label{locare{ggg}}\seihou{\dccare{j}}\seihou{\dccare{j}}\seihou{\dccare{jj}}\seihou{\dccare{a}}$

 $\label{thm:locare} $$\ \care{j}\\care{g}}\ dccare{g}}\ dccare{g}$

 $\label{linear} $$ \left(\frac{gg}}\right)\left(\frac{j}\right) \ f'(\care{jj}) \ f'(\care{jjj}) \ f'(\care{a}) \ f'(\car$

 $\label{thishidecare} $$ \left(\frac{j} \right) $$ \left(\frac{\delta}{\delta \cdot \left(\frac{g}{hishi} A \cdot \left(\frac{g}{hishi} \right) \right)} \right) $$$



jbj | あg | Aj | 田a

 $\langle g \rangle \langle gg \rangle \langle j \rangle \langle ij \rangle \langle a \rangle$

(jb) (h) (A) (h)

6 The kakko series

The commands introduced below are used in exactly the same way as the maru series.

表 5: kakko series ①

| argument | \kakko | \sumikakko | \kakukakko | \kikakko | \ykakko |
|----------|--------|------------|------------|----------|---|
| 1 | (1) | [1] | [1] | (1) | $\langle 1 \rangle$ |
| 97 | (97) | [97] | [97] | [97] | ⟨97⟩ |
| だ | (だ) | 【だ】 | [だ] | (だ) | 〈だ〉 |
| ばばば | (111) | (Jana) | | | <## style="background-color: blue;">(111) |

表 6: kakko series ②

| argument | \nykakko | \namikakko | \kagikakko | \nkagikakko | \period | \ichimoji |
|----------|--|--|------------------|-----------------|---------|-----------|
| 1 | 《1》 | {1} | $\lceil_1 floor$ | ${\mathbb I}_1$ | 1. | 1 |
| 97 | 《97》 | {97} | 「97」 | ₽97』 | 97. | 97 |
| だ | 《だ》 | {だ} | 「だ」 | 『だ』 | だ. | だ |
| ばばば | (Internal of the control of the cont | {\psi \psi \psi \psi \psi \psi \psi \psi | Litht Look | | M. | 1313 |

Examples with lowercase alphabet characters are additionally provided.

\kakko{\dccare{g}}\kakko{\dccare{j}}\kakko{\dccare{jjj}}
}\kakko{\ndccare{a}}

 $\label{thm:linear} $$\kakko{dccare{j}}\kakko{\delta\dccare{g}}\kakko{A\dccare{j}}\kakko{\Pi\dccare{a}}$$$

(g)(gg)(j)(jjj)(a)

(jbj)(bg)(Aj)(Ha)

⊳ \ichimoji

On 2025/10/18, I added \ichimoji command which forces ANY arguments to fit in zenkaku width (=1em).

As follows, \kakko for example, is actually not fits in accurate zenkaku width:

(123)あ(123)あ

However, if you want to made its width fit in accurate zenkaku width, you can use them together as follows:

\fbox{\ichimoji{\kakko{123}}}\fbox{\beta}\ichimoji{\kakko{123}}\beta

(13)あ(13)あ

Personally, I don't think those should always be used together. The reason is that, when I originally designed \kakko, I intentionally settled on the current adjustment out of concern that forcing it to fit strictly within a zenkaku-width space would compromise its visual appearance. This package was never intended to pursue "uniform zenkaku width alignment" as its goal; rather, the decision was made to prioritize providing versatile and visually pleasing commands. Therefore, please regard the recommended usage as a fallback measure—something to be applied only when the layout is severely disrupted due to the lack of zenkaku width alignment.

7 License

Released under the LaTeX Project Public License (LPPL) 1.3c.

8 Example outputs

```
\maru{\slowcare{a}}
\maru{\slowcare{b}}
\maru{\slowcare{c}}
\maru{\slowcare{d}}
\maru{\slowcare{e}}
\maru{\slowcare{f}}
\maru{\slowcare{g}}
\maru{\slowcare{h}}
\maru{\slowcare{i}}
\maru{\slowcare{j}}
\maru{\slowcare{k}}
\maru{\slowcare{1}}
\maru{\slowcare{m}}
\maru{\slowcare{n}}
\maru{\slowcare{o}}
\maru{\slowcare{p}}
\maru{\slowcare{q}}
\maru{\slowcare{r}}
\maru{\slowcare{s}}
\maru{\slowcare{t}}
\maru{\slowcare{u}}
\maru{\slowcare{v}}
\maru{\slowcare{w}}
\maru{\slowcare{x}}
\maru{\slowcare{y}}
\maru{\slowcare{z}}
\maru{A}
\maru{B}
\maru{C}
\maru{D}
\maru{E}
\maru{F}
\maru{G}
\maru{H}
\maru{I}
```

- $\max\{J\}$
- $\max\{K\}$
- \maru{L}
- \maru{M}
- \maru{N}
- \maru{0}
- \maru{P}
- \maru{\dccare{Q}}}
- \maru{R}
- \maru{S}
- $\max\{T\}$
- \maru{U}
- \maru{V}
- -
- \maru{W}
- $\max\{X\}$
- \maru{Y}
- $\max\{Z\}$
- \seihou{\slowcare{a}}
- \seihou{\slowcare{b}}
- \seihou{\slowcare{c}}
- \seihou{\slowcare{d}}
- \seihou{\slowcare{e}}
- \seihou{\slowcare{f}}
- \seihou{\slowcare{g}}
- \seihou{\slowcare{h}}
- \seihou{\slowcare{i}}
- \seihou{\slowcare{j}}
- \seihou{\slowcare{k}}
- \seihou{\slowcare{1}}
- \seihou{\slowcare{m}}
- \seihou{\slowcare{n}}
- \seihou{\slowcare{o}}
- \seihou{\slowcare{p}}
- \seihou{\slowcare{q}}}
- \seihou{\slowcare{r}}
- \seihou{\slowcare{s}}
- \seihou{\slowcare{t}}
- $\verb|\slowcare{u}| \}$
- \seihou{\slowcare{v}}

```
\seihou{\slowcare{w}}
\seihou{\slowcare{x}}
\seihou{\slowcare{y}}
\seihou{\slowcare{z}}
\seihou{A}
\seihou{B}
\seihou{C}
\seihou{D}
\seihou{E}
\seihou{F}
\seihou{G}
\sl H
\sim {I}
\sim {J}
\seihou{K}
\sl L
\seihou{M}
\sl N
\seihou{0}
\seihou{P}
\seihou{\dccare{Q}}}
\sl R
\seihou{S}
\sim T
\seihou{U}
\seihou{V}
\seihou{W}
\seihou{X}
\seihou{Y}
\sim {Z}
\hishi{\slowcare{a}}
\hishi{\slowcare{b}}
\hishi{\slowcare{c}}
\hishi{\slowcare{d}}
\hishi{\slowcare{e}}
\hishi{\slowcare{f}}
\hishi{\slowcare{g}}
```

\hishi{\slowcare{h}}

```
\hishi{\slowcare{i}}
\hishi{\slowcare{j}}
\hishi{\slowcare{k}}
\hishi{\slowcare{1}}
\hishi{\slowcare{m}}
\hishi{\slowcare{n}}
\hishi{\slowcare{o}}
\hishi{\slowcare{p}}
\hishi{\slowcare{q}}
\hishi{\slowcare{r}}
\hishi{\slowcare{s}}
\hishi{\slowcare{t}}
\hishi{\slowcare{u}}
\hishi{\slowcare{v}}
\hishi{\slowcare{w}}
\hishi{\slowcare{x}}
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\hishi{\slowcare{z}}
\hishi{A}
\hishi{B}
\hishi{C}
\hishi{D}
\hishi{E}
\hishi{F}
\hishi{G}
\hishi{H}
\hishi{I}
\hishi{J}
\hishi{K}
\hishi{L}
\hishi{M}
\hishi{N}
\hishi{0}
\hishi{P}
\hishi{\dccare{Q}}}
\hishi{R}
\hishi{S}
\hishi{T}
\hishi{U}
```

- \hishi{V}
- \hishi{W}
- \hishi{X}
- \hishi{Y}
- \hishi{Z}
- \kakko{\slowcare{a}}
- \kakko{\slowcare{b}}
- \kakko{\slowcare{c}}
- \kakko{\slowcare{d}}
- \kakko{\slowcare{e}}
- \kakko{\slowcare{f}}
- \kakko{\slowcare{g}}
- \kakko{\slowcare{h}}
- \kakko{\slowcare{i}}
- \kakko{\slowcare{j}}
- \kakko{\slowcare{k}}
- \kakko{\slowcare{1}}
- \kakko{\slowcare{m}}
- $\kakko{\slowcare{n}}$
- \kakko{\slowcare{o}}
- $\kakko{\slowcare{p}}$
- \kakko{\slowcare{q}}
- \kakko{\slowcare{r}}
- \kakko{\slowcare{s}}
- \kakko{\slowcare{t}}
- \kakko{\slowcare{u}}
- (th) elbowold, joanba,
- \kakko{\slowcare{v}}
- \kakko{\slowcare{w}}
- \kakko{\slowcare{x}}
- \kakko{\slowcare{y}}
- \kakko{\slowcare{z}}
- \kakko{A}
- \kakko{B}
- \kakko{C}
- \kakko{D}
- \kakko{E}
- \kakko{F}
- \kakko{G}

| \kakko{I} |
|---|
| \kakko{J} |
| \kakko{K} |
| \kakko{L} |
| \kakko{M} |
| \kakko{N} |
| \kakko{0} |
| \kakko{P} |
| \kakko{\dccare{Q}} |
| \kakko{R} |
| \kakko{S} |
| \kakko{T} |
| \kakko{U} |
| \kakko{V} |
| \kakko{W} |
| \kakko{X} |
| \kakko{Y} |
| \kakko{Z} |
| |
| |
| a b c d e f g h i j k l m n o p q r s t u v w |
| x y z |
| |
| X Y Z |
| |
| |
| |
| |
| $ (a) \ (b) \ (c) \ (d) \ (e) \ (f) \ (g) \ (h) \ (i) \ (j) \ (k) \ (l) \ (m) \ (n) \ (o) \ (p) \ (q) \ (r) \ (s) \ (t) \ (u) \ (v) \ (w) $ |
| (x) (y) (z) |
| (A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W |
| |
| (X)(Y)(Z) |
| |

 \kakko{H}

9 Version History

```
    v1.0.0 (2025/10/03) — Initial public release.
    v1.0.1 (2025/10/04) — Added \slowcare, and adjusted \dccare.
    v1.0.2 (2025/10/05) — Fixed a problem related to dependency environments.
    v1.0.3 (2025/10/12) — Fixed a problem related to maru series.
    v1.0.4 (2025/10/18) — Added \ichimoji command.
```

10 Source Code

```
\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{KKsymbols}[2025/10/18, Version 1.0.4]
\RequirePackage{luatexja-adjust}
\RequirePackage{expl3}
\RequirePackage{calc}
\RequirePackage{tikz}
\usetikzlibrary{shapes}
\newcommand{\dccare}[1]{%
 \ifnum\ltjgetparameter{direction}=3
   \vphantom{\pi}\raisebox{\dimexpr.09\dimexpr\f@size pt\relax}{\scalebox
       {1}[.8]{#1}}%
 \else
   % 横書き
   \mbox{\dimexpr.155\dimexpr\f@size pt\relax}{\scalebox}
       {1}[.8]{#1}}%
 \fi
}
\newcommand{\ndccare}[1]{\vphantom{田}#1}
\newcommand{\VerticalAdjustSlowcare}{%
 \ifnum\ltjgetparameter{direction}=3
   Oem % 縦組
 \else
```

```
-.04em % 横組
 \fi
}
\newcommand{\VerticalAdjustSlowcareX}{%
 \ifnum\ltjgetparameter{direction}=3
   Oem % 縦組
 \else
   .35em % 横組
 \fi
}
\ExplSyntaxOn
\newsavebox\jpmid_box
\NewDocumentCommand{\slowcare}{m}
{
 \jpmid_iterate:n { \ndccare{\raisebox{\VerticalAdjustSlowcare}{#1}} }
\cs_new_protected:Nn \jpmid_iterate:n
 \tl_map_inline:nn { #1 }
   \sbox\jpmid_box{##1}%
   \raisebox{-\dimexpr(\ht\jpmid_box-\dp\jpmid_box)/2\relax + \dimexpr\
       VerticalAdjustSlowcareX}{\usebox\jpmid_box}%
 }
}
\ExplSyntaxOff
\newcommand{\VerticalAdjustMaru}{%
 \ifnum\ltjgetparameter{direction}=3
   -0.06ex % 縦組
 \else
   0.19ex % 横組
 \fi
}
\newcommand{\maybescale}[3]{%
```

```
\ifdim #1 > #2%
   \ifdim #1 > Opt%
     \edef\scalefactor{%
      \fpeval{ \strip@pt\dimexpr #2\relax / \strip@pt\dimexpr #1\relax }%
    }%
   \else%
     \def\scalefactor{1}%
   \fi%
   \scalebox{\scalefactor}[1]{#3}%
 \else%
   #3%
 \fi%
}
%maru系縦方向
\newcommand{\maybescaleV}[3]{%
 \ifnum\ltjgetparameter{direction}=3
   #3%
 \else
   \ifdim \dimexpr 1.5\dimexpr #1\relax < #2%
     \edef\verticalscale{%
      \fpeval{0.72 * (\strip@pt\dimexpr #2\relax / \strip@pt\dimexpr #1\
           relax)}%
     }%
     \scalebox{1}[\verticalscale]{#3}%
    #3%
   \fi%
 \fi
}
%seihou系縦方向
\newcommand{\maybescaleVV}[3]{%
 \ifnum\ltjgetparameter{direction}=3
   #3%
 \else
   \ifdim \dimexpr 1.5\dimexpr #1\relax < #2%
     \edef\verticalscale{%
      \fpeval{0.64 * (\strip@pt\dimexpr #2\relax / \strip@pt\dimexpr #1\
           relax)}%
```

```
}%
     \scalebox{1}[\verticalscale]{#3}%
   \else%
     #3%
   \fi%
 \fi
}
%hishi系縱方向
\newcommand{\maybescaleVVV}[3]{%
 \ifnum\ltjgetparameter{direction}=3
   #3%
 \else
   \ifdim \dimexpr 1.5\dimexpr #1\relax < #2%
     \edef\verticalscale{%
      \fpeval{0.58 * (\strip@pt\dimexpr #2\relax / \strip@pt\dimexpr #1\
           relax)}%
     }%
     \scalebox{1}[\verticalscale]{#3}%
     #3%
   \fi%
 \fi
}
%kakko系
\newcommand{\maybescaleVVVV}[3]{%
 \ifnum\ltjgetparameter{direction}=3
   #3%
 \else
   \ifdim \dimexpr 1.5\dimexpr #1\relax < #2%
     \edef\verticalscale{%
      \fpeval{0.58 * (\strip@pt\dimexpr #2\relax / \strip@pt\dimexpr #1\
           relax)}%
     }%
     \scalebox{1}[\verticalscale]{#3}%
   \else%
     #3%
   \fi%
 \fi
```

```
\newlength{\maru@boxwidth}
\newlength{\maru@textwidth}
\newlength{\maru@textheight}
\DeclareRobustCommand{\maru}[1]{%
 \settowidth{\maru@textwidth}{#1}%
 \settoheight{\maru@textheight}{#1}%
 \setlength{\maru@boxwidth}{\f@size pt}%
 \multiply\maru@boxwidth by 105 % 123から105へ
 \divide\maru@boxwidth by 100 %
 \ltjghostbeforejachar%
 \vphantom{羅}\raisebox{\VerticalAdjustMaru}{%
   \hbox to \maru@boxwidth{%
    \hss
    \tikz[baseline=(char.base)]{%
      \node[
        shape=circle,
        line width=0.1ex,
        minimum size=.9\maru@boxwidth, % .92から.9へ
        draw,
        inner sep=\dimexpr -0.22\dimexpr\f@size pt % .25から.22へ
      ] (char) {%
        \raisebox{0.033ex}{\scalebox{0.75}{\vphantom{$m$}\makebox[.83]}}
            maru@boxwidth][c]{\maybescale{\maru@textwidth}{.83\
            maru@boxwidth}{\maybescaleV{\maru@textheight}{\maru@boxwidth
            }{#1}}}}% 0.8倍から0.75倍へ・.9\maru@boxwidth から 85\
            maru@boxwidth^
      };
    }%
    \hss
   }%
 }%
 \ltjghostafterjachar
\newlength{\kuromaru@boxwidth}
\newlength{\kuromaru@textwidth}
\newlength{\kuromaru@textheight}
\DeclareRobustCommand{\kuromaru}[1]{%
```

}

```
\settowidth{\kuromaru@textwidth}{#1}%
 \settoheight{\kuromaru@textheight}{#1}%
 \setlength{\kuromaru@boxwidth}{\f@size pt}%
 \multiply\kuromaru@boxwidth by 105 %
 \divide\kuromaru@boxwidth by 100 %
 \ltjghostbeforejachar%
 \vphantom{羅}\raisebox{\VerticalAdjustMaru}{%
   \hbox to \kuromaru@boxwidth{%
     \hss
     \tikz[baseline=(char.base)]{%
      \node[
        shape=circle,
        line width=0.1ex,
        minimum size=.9\kuromaru@boxwidth,
        draw, fill=black,
        inner sep=\dimexpr -0.22\dimexpr\f@size pt
      ] (char) {%
        \raisebox{0.033ex}{\textcolor{white}{\scalebox{0.75}{\vphantom{羅}\
             makebox[.85\kuromaru@boxwidth][c]{\maybescale{\
             kuromaru@textwidth}{.85\kuromaru@boxwidth}{\maybescaleV{\
            kuromaru@textheight}{\kuromaru@boxwidth}{#1}}}}}%
      };
     }%
     \hss
   }%
 }%
 \ltjghostafterjachar
}
\newlength{\nmaru@boxwidth}
\newlength{\nmaru@textwidth}
\newlength{\nmaru@textheight}
\DeclareRobustCommand{\nmaru}[1]{%
 \settowidth{\nmaru@textwidth}{#1}%
 \settoheight{\nmaru@textheight}{#1}%
 \setlength{\nmaru@boxwidth}{\f@size pt}%
 \multiply\nmaru@boxwidth by 105 %
 \divide\nmaru@boxwidth by 100 %
 \ltjghostbeforejachar%
 \vphantom{羅}\raisebox{\VerticalAdjustMaru}{%
```

```
\hbox to 1.02\nmaru@boxwidth{%
                    \hss
                   \tikz[baseline=(char.base),scale=.93]{%
                          \node[
                                shape=circle,
                                line width=0.1ex,
                                minimum size=.9\nmaru@boxwidth,
                                draw, double, double distance=0.08ex,
                                 inner sep=\dimexpr -0.22\dimexpr\f@size pt
                          ] (char) {%
                                 \color=0.033ex{0.033ex}{\color=0.7}{\color=0.7}{\color=0.85}
                                                 nmaru@boxwidth] [c] {\maybescale{\nmaru@textwidth}} \{.85\
                                                 nmaru@boxwidth {\mbox{\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{
                                                 }{#1}}}}%
                         };
                   }%
                   \hss
            }%
      }%
      \ltjghostafterjachar
\newcommand{\VerticalAdjustMaruX}{%
      \ifnum\ltjgetparameter{direction}=3
             -.13ex % 縦組
      \else
            -.11ex % 横組
      \fi
}
\newcommand{\VerticalAdjustMaruY}{%
      \ifnum\ltjgetparameter{direction}=3
              .124ex % 縦組
      \else
              .25ex % 横組
      \fi
}
\newlength{\seihou@boxwidth}
```

```
\newlength{\seihou@textwidth}
\newlength{\seihou@textheight}
\DeclareRobustCommand{\seihou}[1]{%
    \settowidth{\seihou@textwidth}{#1}%
    \settoheight{\seihou@textheight}{#1}%
    \setlength{\seihou@boxwidth}{\f@size pt}%
    \multiply\seihou@boxwidth by 123 %
    \divide\seihou@boxwidth by 100 %
    \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustMaruX}{%
    \mbox{%
    \hbox to \seihou@boxwidth{%
    \tikz[baseline=(char.base)]{%
            \node[draw, line width=0.1ex, minimum size=\dimexpr 0.95\dimexpr\f@size
                        pt, inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center] (
                      char) {\vphantom{\raisebox{0.124ex}{羅}}}{\raisebox{\
                      VerticalAdjustMaruY}{\scalebox{.8}{\hspace*{\dimexpr 0.1\
                      seihou@boxwidth]\makebox[.82\seihou@boxwidth][c]{\maybescale{\
                      seihou@textwidth\} \{.82\seihou@boxwidth\} \{\mbox{$\maybescaleVV} \{\mbox{$\maybescaleVV} \} \} \} $$ \cite{Constraints} $$ \cite{Constra
                      seihou@textheight}{\seihou@boxwidth}{#1}}}\hspace*{\dimexpr 0.1\
                      seihou@boxwidth}}}};
    }\hss}}\ltjghostafterjachar
}
\newlength{\kuroseihou@boxwidth}
\newlength{\kuroseihou@textwidth}
\newlength{\kuroseihou@textheight}
\DeclareRobustCommand{\kuroseihou}[1]{%
    \settowidth{\kuroseihou@textwidth}{#1}%
    \settoheight{\kuroseihou@textheight}{#1}%
    \setlength{\kuroseihou@boxwidth}{\f@size pt}%
    \multiply\kuroseihou@boxwidth by 123 %
    \divide\kuroseihou@boxwidth by 100 %
    \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustMaruX}{%
    \hbox to \kuroseihou@boxwidth{%
    \hss
    \tikz[baseline=(char.base)]{%
           \node[draw, fill=black, line width=0.1ex, minimum size=\dimexpr 0.95\
                      dimexpr\f@size pt, inner sep=-\dimexpr 0.125\dimexpr\f@size pt,
```

```
align=center] (char) {\vphantom{\raisebox{0.124ex}{羅}}{\raisebox{\
                       VerticalAdjustMaruY}{\scalebox{.8}{\hspace*{\dimexpr 0.1\
                       kuroseihou@boxwidth}\textcolor{white}{\makebox[.82\
                      kuroseihou@boxwidth][c]{\maybescale{\kuroseihou@textwidth}{.82\
                      kuroseihou@boxwidth}{\maybescaleVV{\kuroseihou@textheight}{\
                      kuroseihou@boxwidth}{#1}}}\hspace*{\dimexpr 0.1\
                       kuroseihou@boxwidth}}}};
    }\hss}}\ltjghostafterjachar
}
\newlength{\seimaru@boxwidth}
\newlength{\seimaru@textwidth}
\newlength{\seimaru@textheight}
\DeclareRobustCommand{\seimaru}[1]{%
    \settowidth{\seimaru@textwidth}{#1}%
    \settoheight{\seimaru@textheight}{#1}%
    \setlength{\seimaru@boxwidth}{\f@size pt}%
    \multiply\seimaru@boxwidth by 123 %
    \divide\seimaru@boxwidth by 100 %
    \verb|\tiphostbeforejachar| \| \tiphostbeforejachar| \| \tiphostbefore
    \mbox{%
    \hbox to \seimaru@boxwidth{%
    \hss
    \tikz[baseline=(char.base)]{%
             \node[draw, rounded corners=0.435ex, line width=0.1ex, minimum size=.8\
                       seimaru@boxwidth, inner sep=-\dimexpr 0.125\dimexpr\f@size pt,
                       align=center] (char) {\vphantom{\raisebox{0.124ex}{羅}}{\raisebox{\
                       VerticalAdjustMaruY}{\scalebox{.8}{\hspace*{\dimexpr 0.1\
                       seimaru@boxwidth}\makebox[.8\seimaru@boxwidth][c]{\maybescale{\
                       seimaru@textwidth{.82\seimaru@boxwidth}{\maybescaleVV{\}
                       seimaru@textheight}{\seimaru@boxwidth}{#1}}}\hspace*{\dimexpr 0.1\
                       seimaru@boxwidth}}}};
    }\hss}}\ltjghostafterjachar
}
\newlength{\kuroseimaru@boxwidth}
\newlength{\kuroseimaru@textwidth}
\newlength{\kuroseimaru@textheight}
\DeclareRobustCommand{\kuroseimaru}[1]{%
    \settowidth{\kuroseimaru@textwidth}{#1}%
```

```
\settoheight{\kuroseimaru@textheight}{#1}%
 \setlength{\kuroseimaru@boxwidth}{\f@size pt}%
 \multiply\kuroseimaru@boxwidth by 123 %
 \divide\kuroseimaru@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustMaruX}{%
 \mbox{%
 \hbox to \kuroseimaru@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[draw, fill=black, rounded corners=0.435ex, line width=0.1ex,
        minimum size=.8\kuroseimaru@boxwidth, inner sep=-\dimexpr 0.125\
         dimexpr\f@size pt, align=center] (char) {\vphantom{\raisebox{0.124}}
         ex}{羅}}{\raisebox{\VerticalAdjustMaruY}{\scalebox{.8}{\hspace*{\
         dimexpr 0.1\kuroseimaru@boxwidth}\textcolor{white}{\makebox[.8\
        kuroseimaru@boxwidth][c]{\maybescale{\kuroseimaru@textwidth}{.82\
        kuroseimaru@boxwidth}{\maybescaleVV{\kuroseimaru@textheight}{\
        kuroseimaru@boxwidth}}}};
 }\hss}}\ltjghostafterjachar
}
\newcommand{\VerticalAdjustMaruZ}{%
 \ifnum\ltjgetparameter{direction}=3
   .1ex % 縦組
 \else
   .42ex % 横組
 \fi
}
\newlength{\hishi@boxwidth}
\newlength{\hishi@textwidth}
\newlength{\hishi@textheight}
\DeclareRobustCommand{\hishi}[1]{%
 \settowidth{\hishi@textwidth}{#1}%
 \settoheight{\hishi@textheight}{#1}%
 \setlength{\hishi@boxwidth}{\f@size pt}%
 \multiply\hishi@boxwidth by 123 %
 \divide\hishi@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustMaruX}{%
 \mbox{%
```

```
\hbox to 1.05\hishi@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[draw, shape=diamond, line width=0.1ex, minimum size=\dimexpr
         0.95\dimexpr\f@size pt, inner sep=-\dimexpr .13\hishi@boxwidth,
         align=center] (char) {\vphantom{\raisebox{0.124ex}{羅}}{\raisebox{\
         VerticalAdjustMaruZ}{\scalebox{.7}{\hspace*{\dimexpr 0.1\
         \hishi@boxwidth\makebox[.67\hishi@boxwidth][c]{\maybescale{}}
         hishi@textwidth{.67\hishi@boxwidth}{\maybescaleVVV{\}
         hishi@textheight}{\hishi@boxwidth}{#1}}}\hspace*{\dimexpr 0.1\
         hishi@boxwidth}}}};
 }\hss}}\ltjghostafterjachar
}
\newlength{\kurohishi@boxwidth}
\newlength{\kurohishi@textwidth}
\newlength{\kurohishi@textheight}
\DeclareRobustCommand{\kurohishi}[1]{%
 \settowidth{\kurohishi@textwidth}{#1}%
 \settoheight{\kurohishi@textheight}{#1}%
 \setlength{\kurohishi@boxwidth}{\f@size pt}%
 \multiply\kurohishi@boxwidth by 123 %
 \divide\kurohishi@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustMaruX}{%
 \mbox{%
 \hbox to 1.05\kurohishi@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[draw, shape=diamond, fill=black, line width=0.1ex, minimum size=\
         dimexpr 0.95\dimexpr\f@size pt, inner sep=-\dimexpr .13\
         kurohishi@boxwidth, align=center] (char) {\vphantom{\raisebox{0.124}}
         ex}{羅}}{\raisebox{\VerticalAdjustMaruZ}{\scalebox{.7}{\hspace*{\
         dimexpr 0.1\kurohishi@boxwidth}\textcolor{white}{\makebox[.7\
         kurohishi@boxwidth][c]{\maybescale{\kurohishi@textwidth}{.7\
         kurohishi@boxwidth}{\maybescaleVVV{\kurohishi@textheight}{\
         kurohishi@boxwidth}{#1}}}\hspace*{\dimexpr 0.1\kurohishi@boxwidth
         }}}};;
 }\hss}}\ltjghostafterjachar
```

```
\newlength{\maruhishi@boxwidth}
\newlength{\maruhishi@textwidth}
\newlength{\maruhishi@textheight}
\DeclareRobustCommand{\maruhishi}[1]{%
    \settowidth{\maruhishi@textwidth}{#1}%
    \settoheight{\maruhishi@textheight}{#1}%
    \setlength{\maruhishi@boxwidth}{\f@size pt}%
    \multiply\maruhishi@boxwidth by 123 %
    \divide\maruhishi@boxwidth by 100 %
    \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustMaruX}{%
    \mbox{%
    \hbox to 1.05\maruhishi@boxwidth{%
    \hss
    \tikz[baseline=(char.base)]{%
            \node[draw, rounded corners=0.3ex, shape=diamond, line width=0.1ex,
                      minimum size=\dimexpr 0.95\dimexpr\f@size pt, inner sep=-\dimexpr
                       .13\maruhishi@boxwidth, align=center] (char) {\vphantom{\raisebox
                      {0.124ex}{羅}}{\raisebox{\VerticalAdjustMaruZ}{\scalebox{.7}{\
                      hspace*{\dimexpr 0.1\maruhishi@boxwidth}\makebox[.7\
                      maruhishi@boxwidth][c]{\maybescale{\maruhishi@textwidth}{.7\
                      {\tt maruhishi@boxwidth} {\tt \mbox{maruhishi@textheight}} {\tt \mbox{maruhishi@textheight}} {\tt \mbox{maruhishi@textheight}} {\tt \mbox{maruhishi} {\tt \mbox{maruhishi}} {\tt \mbox{maruhi
                      maruhishi@boxwidth}{#1}}}\hspace*{\dimexpr 0.1\maruhishi@boxwidth
                      }}}};
    }\hss}}\ltjghostafterjachar
}
\newlength{\kuromaruhishi@boxwidth}
\newlength{\kuromaruhishi@textwidth}
\newlength{\kuromaruhishi@textheight}
\DeclareRobustCommand{\kuromaruhishi}[1]{%
    \settowidth{\kuromaruhishi@textwidth}{#1}%
    \settoheight{\kuromaruhishi@textheight}{#1}%
    \setlength{\kuromaruhishi@boxwidth}{\f@size pt}%
    \multiply\kuromaruhishi@boxwidth by 123 %
    \divide\kuromaruhishi@boxwidth by 100 %
    \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustMaruX}{%
    \mbox{%
    \hbox to 1.05\kuromaruhishi@boxwidth{%
    \tikz[baseline=(char.base)]{%
```

```
\node[draw, fill=black, rounded corners=0.3ex, shape=diamond, line
         width=0.1ex, minimum size=\dimexpr 0.95\dimexpr\f@size pt, inner
         sep=-\dimexpr .13\kuromaruhishi@boxwidth, align=center] (char) {\
         scalebox{.7}{\hspace*{\dimexpr 0.1\kuromaruhishi@boxwidth}\
         textcolor{white}{\makebox[.7\kuromaruhishi@boxwidth][c]{\maybescale
         {\bar t}_{.7\kuromaruhishi@textwidth}{..7\kuromaruhishi@boxwidth}{\kuromaruhishi@textwidth}{..7\kuromaruhishi@boxwidth}{\kuromaruhishi@textwidth}{...}
         maybescaleVVV{\kuromaruhishi@textheight}{\kuromaruhishi@boxwidth
         }{#1}}}\hspace*{\dimexpr 0.1\kuromaruhishi@boxwidth}}}}};
 }\hss}}\ltjghostafterjachar
}
\newcommand{\VerticalAdjustKakkoX}{%
 \ifnum\ltjgetparameter{direction}=3
   -Oex % 縦組
 \else
   -Oex % 横組
 \fi
}
\newlength{\kakko@boxwidth}
\newlength{\kakko@textwidth}
\newlength{\kakko@textheight}
\DeclareRobustCommand{\kakko}[1]{%
 \settowidth{\kakko@textwidth}{#1}%
 \settoheight{\kakko@textheight}{#1}%
 \setlength{\kakko@boxwidth}{\f@size pt}%
 \multiply\kakko@boxwidth by 123 %
 \divide\kakko@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \kakko@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\kakko@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         kakko@boxwidth}\makebox[.5\kakko@boxwidth][c]{\scalebox{.8}[1]{ (}\
         maybescale{\kakko@textwidth}{.5\kakko@boxwidth}{\maybescaleVVVV{\
         kakko@textheight}{\kakko@boxwidth}{#1}}\scalebox{.8}[1]{) }}\hspace
```

```
*{\dimexpr 0.02\kakko@boxwidth}}}};
 }\hss}}\ltjghostafterjachar
}
\newlength{\sumikakko@boxwidth}
\newlength{\sumikakko@textwidth}
\newlength{\sumikakko@textheight}
\DeclareRobustCommand{\sumikakko}[1]{%
 \settowidth{\sumikakko@textwidth}{#1}%
 \settoheight{\sumikakko@textheight}{#1}%
 \setlength{\sumikakko@boxwidth}{\f@size pt}%
 \multiply\sumikakko@boxwidth by 123 %
 \divide\sumikakko@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \sumikakko@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\sumikakko@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         sumikakko@boxwidth}\makebox[.5\sumikakko@boxwidth][c]{\scalebox
         {.6}[1]{ [}\maybescale{\sumikakko@textwidth}{.5\sumikakko@boxwidth
         }{\maybescaleVVVV{\sumikakko@textheight}{\sumikakko@boxwidth}{#1}}\
         scalebox{.6}[1]{] }}\hspace*{\dimexpr 0.02\sumikakko@boxwidth}}}};
 }\\hss}}\\ltjghostafterjachar
}
\newlength{\kakukakko@boxwidth}
\newlength{\kakukakko@textwidth}
\newlength{\kakukakko@textheight}
\DeclareRobustCommand{\kakukakko}[1]{%
 \settowidth{\kakukakko@textwidth}{#1}%
 \settoheight{\kakukakko@textheight}{#1}%
 \setlength{\kakukakko@boxwidth}{\f@size pt}%
 \multiply\kakukakko@boxwidth by 123 %
 \divide\kakukakko@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \kakukakko@boxwidth{%
```

```
\hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\kakukakko@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         kakukakko@boxwidth}\makebox[.5\kakukakko@boxwidth][c]{\scalebox
         {.6}[1]{ [}\maybescale{\kakukakko@textwidth}{.5\kakukakko@boxwidth
         }{\maybescaleVVVV{\kakukakko@textheight}{\kakukakko@boxwidth}{#1}}\
         scalebox{.6}[1]{] }}\hspace*{\dimexpr 0.02\kakukakko@boxwidth}}}};
 }\hss}}\ltjghostafterjachar
}
\newlength{\kikakko@boxwidth}
\newlength{\kikakko@textwidth}
\newlength{\kikakko@textheight}
\DeclareRobustCommand{\kikakko}[1]{%
 \settowidth{\kikakko@textwidth}{#1}%
 \settoheight{\kikakko@textheight}{#1}%
 \setlength{\kikakko@boxwidth}{\f@size pt}%
 \multiply\kikakko@boxwidth by 123 %
 \divide\kikakko@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \kikakko@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\kikakko@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         kikakko@boxwidth}\makebox[.5\kikakko@boxwidth][c]{\scalebox{.6}[1]{
          [}\maybescale{\kikakko@textwidth}{.5\kikakko@boxwidth}{\
         maybescaleVVVV{\kikakko@textheight}{\kikakko@boxwidth}{#1}}\
         scalebox{.6}[1]{] }}\hspace*{\dimexpr 0.02\kikakko@boxwidth}}}};
 }\hss}}\ltjghostafterjachar
}
\newlength{\ykakko@boxwidth}
\newlength{\ykakko@textwidth}
\newlength{\ykakko@textheight}
\DeclareRobustCommand{\ykakko}[1]{%
```

```
\settowidth{\ykakko@textwidth}{#1}%
 \settoheight{\ykakko@textheight}{#1}%
 \setlength{\ykakko@boxwidth}{\f@size pt}%
 \multiply\ykakko@boxwidth by 123 %
 \divide\ykakko@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \ykakko@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\ykakko@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         ykakko@boxwidth}\makebox[.5\ykakko@boxwidth][c]{\scalebox{.6}[1]{
          \maybescale{\ykakko@textwidth}{.5\ykakko@boxwidth}{\
         maybescaleVVVV{\ykakko@textheight}{\ykakko@boxwidth}{#1}}\scalebox
         \{.6\}[1]\{\}}\hspace*{\dimexpr 0.02\ykakko@boxwidth}}}};
 }\hss}}\ltjghostafterjachar
}
\newlength{\nykakko@boxwidth}
\newlength{\nykakko@textwidth}
\newlength{\nykakko@textheight}
\DeclareRobustCommand{\nykakko}[1]{%
 \settowidth{\nykakko@textwidth}{#1}%
 \settoheight{\nykakko@textheight}{#1}%
 \setlength{\nykakko@boxwidth}{\f@size pt}%
 \multiply\nykakko@boxwidth by 123 %
 \divide\nykakko@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \nykakko@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\nykakko@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         nykakko@boxwidth}\makebox[.5\nykakko@boxwidth][c]{\scalebox{.6}[1]{
          \maybescale{\nykakko@textwidth}{.5\nykakko@boxwidth}{\
         maybescaleVVVV{\nykakko@textheight}{\nykakko@boxwidth}{#1}}\
```

```
scalebox{.6}[1]{\(\rightarrow\)} \\hspace*{\dimexpr 0.02\nykakko@boxwidth}}}};
 }\hss}}\ltjghostafterjachar
}
\newlength{\namikakko@boxwidth}
\newlength{\namikakko@textwidth}
\newlength{\namikakko@textheight}
\DeclareRobustCommand{\namikakko}[1]{%
 \settowidth{\namikakko@textwidth}{#1}%
 \settoheight{\namikakko@textheight}{#1}%
 \setlength{\namikakko@boxwidth}{\f@size pt}%
 \multiply\namikakko@boxwidth by 123 %
 \divide\namikakko@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \namikakko@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\namikakko@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         namikakko@boxwidth}\makebox[.5\namikakko@boxwidth][c]{\scalebox
         {.6}[1]{ {}\maybescale{\namikakko@textwidth}{.5\namikakko@boxwidth
         }{\maybescaleVVVV{\namikakko@textheight}{\namikakko@boxwidth}{#1}}\
         scalebox{.6}[1]{} }}\hspace*{\dimexpr 0.02\namikakko@boxwidth}}}};
 }\\hss}}\\ltjghostafterjachar
}
\newlength{\kagikakko@boxwidth}
\newlength{\kagikakko@textwidth}
\newlength{\kagikakko@textheight}
\DeclareRobustCommand{\kagikakko}[1]{%
 \settowidth{\kagikakko@textwidth}{#1}%
 \settoheight{\kagikakko@textheight}{#1}%
 \setlength{\kagikakko@boxwidth}{\f@size pt}%
 \multiply\kagikakko@boxwidth by 123 %
 \divide\kagikakko@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \kagikakko@boxwidth{%
```

```
\hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\kagikakko@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         kagikakko@boxwidth}\makebox[.5\kagikakko@boxwidth][c]{\scalebox
         {.6}[1]{ \( \)\)\maybescale{\kagikakko@textwidth}\{.5\kagikakko@boxwidth\)
         }{\maybescaleVVVV{\kagikakko@textheight}{\kagikakko@boxwidth}{#1}}\
         scalebox{.6}[1]{\( \) }}\hspace*{\dimexpr 0.02\kagikakko@boxwidth\\)}};
 }\hss}}\ltjghostafterjachar
}
\newlength{\nkagikakko@boxwidth}
\newlength{\nkagikakko@textwidth}
\newlength{\nkagikakko@textheight}
\DeclareRobustCommand{\nkagikakko}[1]{%
 \settowidth{\nkagikakko@textwidth}{#1}%
 \settoheight{\nkagikakko@textheight}{#1}%
 \setlength{\nkagikakko@boxwidth}{\f@size pt}%
 \multiply\nkagikakko@boxwidth by 123 %
 \divide\nkagikakko@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \nkagikakko@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\nkagikakko@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         nkagikakko@boxwidth}\makebox[.5\nkagikakko@boxwidth][c]{\scalebox
         {.6}[1]{ \[ \] \maybescale{\nkagikakko@textwidth}{.5\
         nkagikakko@boxwidth}{\maybescaleVVVV{\nkagikakko@textheight}{\
         nkagikakko@boxwidth}{#1}}\scalebox{.6}[1]{__}}\hspace*{\dimexpr
         0.02\nkagikakko@boxwidth}}}};
 }\hss}}\ltjghostafterjachar
}
\newlength{\period@boxwidth}
\newlength{\period@textwidth}
\newlength{\period@textheight}
```

```
\DeclareRobustCommand{\period}[1]{%
 \settowidth{\period@textwidth}{#1}%
 \setlength{\period@boxwidth}{\f@size pt}%
 \settoheight{\period@textheight}{#1}%
 \multiply\period@boxwidth by 123 %
 \divide\period@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \period@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\period@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         period@boxwidth}\makebox[.5\period@boxwidth][c]{\maybescale{\
         period@textwidth}{.5\period@boxwidth}{\maybescaleVVVV{\
         period@textheight}{\period@boxwidth}{#1}}\scalebox{1}[1]{.}}\hspace
         *{\dimexpr 0.02\period@boxwidth}}}};
 }\hss}}\ltjghostafterjachar
}
\newlength{\ichimoji@boxwidth}
\newlength{\ichimoji@textwidth}
\newlength{\ichimoji@textheight}
\DeclareRobustCommand{\ichimoji}[1]{%
 \settowidth{\ichimoji@textwidth}{#1}%
 \setlength{\ichimoji@boxwidth}{\f@size pt}%
 \settoheight{\ichimoji@textheight}{#1}%
 \multiply\ichimoji@boxwidth by 100 %
 \divide\ichimoji@boxwidth by 100 %
 \ltjghostbeforejachar\vphantom{羅}\raisebox{\VerticalAdjustKakkoX}{%
 \mbox{%
 \hbox to \ichimoji@boxwidth{%
 \hss
 \tikz[baseline=(char.base)]{%
     \node[inner sep=-\dimexpr 0.125\dimexpr\f@size pt, align=center,
         minimum size=.8\ichimoji@boxwidth] (char) {{\raisebox{\
         VerticalAdjustKakkoX}{\scalebox{1}{\hspace*{\dimexpr 0.02\
         ichimoji@boxwidth}\makebox[\ichimoji@boxwidth][c]{\maybescale{\
         ichimoji@textwidth}{\ichimoji@boxwidth}{\maybescaleVVVV{\
```

```
ichimoji@textheight}{\ichimoji@boxwidth}{#1}}}\hspace*{\dimexpr
     0.02\ichimoji@boxwidth}}};
}\hss}}}\ltjghostafterjachar
}
\endinput
```