fmocdmac — FM's OCD LATEX Macro*

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Abstract

This package contains almost all the latex macros I heavily use in my tcs research activity and, in particular, in the writing of conference and journal articles. As few of my co-authors have kindly pointed out, and probably many have thought, they are somehow a clear expression of an underlying ocd-like behavior... hence the name!

1 Implementation & Usage

 $1 \langle *package \rangle$

```
Required external packages:
```

```
2
3 \RequirePackage{etoolbox}
4
5 \RequirePackage{xargs}
6 \RequirePackage{xspace}
7 \RequirePackage{stringstrings}
```

```
Package options:
10 %% Auxiliary packages
11 \newif\ifaux@ \aux@false
12 \DeclareOption{aux}{\aux@true}
13 \DeclareOption{noaux}{\aux@false}
15 %% AMS defaults
16 \newif\ifamsdef@ \amsdef@true
17 \DeclareOption{noamsdef}{\amsdef@false}
19\ \mbox{\%\%} AMS theorem tools
20 \newif\ifamsthm@ \amsthm@true
23 %% Extended Theorem tools
24 \newif\ifthmtls@ \thmtls@true
25 \DeclareOption{nothmtls}{\thmtls@false}
27 %% Enumeration tools
28 \newif\ifenmtls@ \enmtls@true
29 \verb|\DeclareOption{noenmtls}{\cline{conmtls}}| 
31 %% Hyper reference
32 \neq 0 
35 %% Font tools
36 \newif\iffnttls@ \fnttls@true
```

^{*}This document describes version v0.8 of the fmocdmac package, last revised 2022/08/21.

```
37 \DeclareOption{nofnttls}{\fnttls@false}
39 %% Camera-ready version
40 \newif\ifcrv@ \crv@false
41 \DeclareOption{crv}{\crv@true}
43 %% Change bars
44 \newif\ifchgbar@ \chgbar@false
45 \DeclareOption{chgbar}{\chgbar@true}
47 %% Line numbers
48 \newif\iflinnum@ \linnum@false
49 \DeclareOption{linnum}{\linnum@true}
51
52 %% Text macro generation
53 \newif\iftxtgen@ \txtgen@false
54 \DeclareOption{txtgen}{\txtgen@true}
55 \DeclareOption{notxtgen}
    {\txtgen@false\text@false\com@false\log@false\aut@false}
57
58 %% Math macro generation
59 \newif\ifmthgen@ \mthgen@false
60 \DeclareOption{mthgen}{\mthgen@true}
61 \DeclareOption{nomthgen}
    {\mthgen@false\math@false\gam@false\log@false\aut@false}
63
64
65 %% Elementary macros for text
66 \newif\iftext@ \text@false
67 \DeclareOption{text}{\text@true\txtgen@true}
68 \DeclareOption{notext}{\text@false}
70 %% Elementary macros for math
71 \newif\ifmath@ \math@false
72 \DeclareOption{math}{\math@true\mthgen@true}
73 \ensuremath{$\ $\ $} \{\math@false}
75
76 %% Macros for computational-complexity classes
77 \newif\ifcom@ \com@false
78 \DeclareOption{com}{\com@true\txtgen@true}
79 \DeclareOption{nocom}{\com@false}
82 %% Macros for games
83 \newif\ifgam@ \gam@false
84 \end{true} txtgen@true\mthgen@true\}
85 \DeclareOption{nogam}{\gam@false}
87 %% Macros for logics
88 \newif\iflog@ \log@false
89 \DeclareOption{log}{\log@true\txtgen@true\mthgen@true}
90 \DeclareOption{nolog}{\log@false}
91
92 %% Macros for automata
93 \newif\ifaut@ \aut@false
94 \end{true} txtgen@true\end{true}
95 \DeclareOption{noaut}{\aut@false}
96
98 %% Format-related tricks
99 \newif\iffrm@ \frm@false
```

```
100 \DeclareOption{frm}{\frm@true}
101 \DeclareOption{nofrm}{\frm@false}
102
103
104 %% Figure-related tricks
105 \neq \frac{1}{100} \fig@false
106 \DeclareOption{fig}{\fig@true}
107 \DeclareOption{nofig}{\fig@false}
108
109 %% Wrapfig package
110 \newif\ifwrpfig@ \wrpfig@true
111 \DeclareOption{nowrpfig}{\wrpfig@false}
112
113
114 %% Table-related tricks
115 \newif\iftab@ \tab@false
116 \DeclareOption{tab}{\tab@true}
117 \DeclareOption{notab}{\tab@false}
118
119
120 %% Algorithm-related tricks
121 \newif\ifalg@ \alg@false
122 \DeclareOption{alg}{\alg@true}
123 \DeclareOption{noalg}{\alg@false}
124
     Option-processing code:
125
126 \ensuremath{\mbox{\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{}\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{
128 \ExecuteOptions{aux,txtgen,mthgen,text,math,com,gam,log,aut}%
130 \ProcessOptions\relax%
132 \ifcsdef{if@twocolumn}{}{\newif\if@twocolumn}
137 \ifaux@
138
139 \ifamsdef@
140 % AMS Packages
          \RequirePackage{amsmath}
          \RequirePackage{amssymb}
          \RequirePackage{stmaryrd}
          \interdisplaylinepenalty=2500
144
145\,\backslash\mathrm{fi}
146
147 \ifamsthm@
148 % AMS Theorem Tools
        \RequirePackage{amsthm}
150 \fi
151
152 \left| \text{ifthmtls@} \right|
153 % Extended Theorem Tools
154
          \RequirePackage{thmtools, thm-restate}
155 \fi
156
157 \ifenmtls@
          % Enumeration Tools
           \RequirePackage{paralist}
160 \fi
161
```

```
163
                                                % Hyper References
                                 164
                                                 \RequirePackage{hyperref}
                                 165
                                                \hypersetup
                                 166
                                 167
                                                      pdfsubject
                                                                                                  = {},
                                 168
                                                      pdfkeywords
                                                                                                  = {},
                                 169
                                                      pdfproducer
                                                                                                 = {},
                                 170
                                                      pdfcreator
                                                                                                  = {},
                                 171
                                                      pdfpagemode = {UseNone},
                                 172
                                 173
                                                      pdfstartview = {FitH},
                                                                                                 = {blue},
                                 174
                                                      urlcolor
                                                      colorlinks
                                 175
                                 176
                                 177 \fi
                                 178
                                 179 \iffnttls@
                                                % Font Tools
                                                 \RequirePackage[final]{microtype}
                                 181
                                 182 \fi
                                 183
                                 184 \ifcrv@
                                               % Camera-Ready Version
                                 185
                                 186
                                                %%...
                                 187
                                 188
                                 189 \else
                                               % Draft Version
                                 190
                                 191
                                               %%...
                                 192
                                                \ifchgbar@
                                 194
                                 195
                                                      % Change Bars
                                                      \RequirePackage{changebar}
                                 196
                                                \fi
                                 197
                                 198
                                                \iflinnum@
                                 199
                                                      % Line Numbers
                                 200
                                 201
                                                       \if@twocolumn
                                 202
                                                             \RequirePackage[switch, columnwise, mathlines]{lineno}\linenumbers
                                 203
                                                             \RequirePackage[columnwise, mathlines]{lineno}\linenumbers
                                 204
                                 205
                                                \fi
                                 206
                                 207
                                 208
                                                %%...
                                209
                                210 \fi
                                211
                                 \mathbbo Bbo Math Font: ... to do!
                                 217 \left( \mathbf{Mathbbo}_{l} \right) \\  217 \left( \mathbf{mathbbo}_{l} \right) \\ 
\matheus Eus Math Font: ... to do!
                                 218 \left\{ \mathbb{T}_{matheus} \right\} \\
\mathpzc Pzc Math Font: ... to do!
                                  219 \left\{ \mathbf{T1}_{pzc}_{m}(it) \right\} \\
```

162 \ifhypref@

```
\mathscr Scr Math Font: ... to do!
          220 \left\{ \mathbf{Wathscr} { \mathbb{U} { rsfs}{m}{n} } \right\}
          \omicron Auxiliary Greek lowercase letter: ... to do!
          225 \csdef{omicron}{o}
\Alpha, ... Auxiliary Greek uppercase letters: ... to do!
          226 \csdef{Alpha}{A} \csdef{Beta}{B} \csdef{Epsilon}{E} \csdef{varEpsilon}{E}
          227 \texttt{Zeta}{Z} \texttt{Eta}{H} \texttt{Iota}{I} \texttt{Kappa}{K}
          228 \csdef{varKappa}{K} \csdef{Mu}{M} \csdef{Nu}{N} \csdef{Omicron}{O}
          229 \csdef{Rho}{P} \csdef{varRho}{P} \csdef{Tau}{T} \csdef{Chi}{X}
          Emptiness check: \{A\}\{\langle B\}\}\ evaluates to the empty string, if Argument \langle A\rangle is empty,
          and to Argument \langle B \rangle, otherwise.
            • \empchk{}{B} = ""
            • \empchk{A}{B} = "B"
          234 \newcommand{\empchk}[2]
             {\left\{ if & 1 \right\} }
  \defval Default value: \defval{\langle A \rangle}{\langle B \rangle} evaluates to Argument \langle B \rangle, if Argument \langle A \rangle is empty, and to
          Argument \langle A \rangle itself, otherwise.
            • \defval{}{B} = "B"
            • \defval{A}{B} = "A"
          236 \newcommand{\defval}[2]
              {\left\{ if & 1 & 2 \le 1 \le 1 \right\}}
          \arglef Left extension: \arglef{\langle}\langle}\ evaluates to the concatenation \langle AB \rangle of the two arguments, if
          Argument \langle B \rangle is non-empty, and to the empty string, otherwise.
            • \arglef{A}{} = ""
            • \arglef{A}{B} = "AB"
          239 \newcommand{\arglef}[2]
              {\empchk{#2}{#1\allowbreak#2}}
  \argrig Right extension: \argrig{\langle A\rangle} \{\langle B\rangle}$ evaluates to the concatenation \langle AB \rangle of the two arguments,
          if Argument \langle A \rangle is non-empty, and to the empty string, otherwise.
            • \argrig{}{B} = ""
            • \argrig{A}{B} = "AB"
          241 \newcommand{\argrig}[2]
             {\empchk{#1}{#1\allowbreak#2}}
  \ Middle extension: \ of the three
          arguments, if Argument \langle B \rangle is non-empty, and to the empty string, otherwise.
            • \argmid{A}{}{C} = ""
            • \argmid{A}{B}{C} = "ABC"
          243 \newcommand{\argmid}[3]
             {\empchk{#2}{#1\allowbreak#2\allowbreak#3}}
```

```
Separators: \argsep\{\langle A \rangle\}\{\langle B \rangle\}\{\langle C \rangle\} evaluates to Argument \langle C \rangle, if Argument \langle A \rangle is empty, to
              Argument \langle A \rangle, if Argument \langle C \rangle is empty, and to the concatenation \langle ABC \rangle, otherwise.
                  • \argsep{}{B}{C} = "C"
                  • \argsep{A}{B}{} = "A"
                  • \argsep{A}{}{C} = "AC"
                  • \argsep{A}{B}{C} = "ABC"
               245 \newcommand{\argsep}[3]
                    Variadic commands: \operatorname{Varcmd}\{\langle A \rangle\}\{\langle B \rangle\}\{\langle C \rangle\}\{\langle D \rangle\}\{\langle E \rangle\}\{\langle F \rangle\} \dots to do!
     \varcmd
               248 \newcommand{\varcmd}[6]
                     {\expandafter\newcommand\csname gobble#1arg\endcsname[2]
               249
                       {\csname check#1arg\endcsname{\argsep{##1}{#4}{##2}}}%
               250
               251
                     \expandafter\newcommand\csname check#larg\endcsname[1]
               252
                       {\csname @ifnextchar\endcsname%
                         \bgroup{\csname gobble#1arg\endcsname{##1}}{#2{##1#5}#6}}%
               253
                     \expandafter\newcommand\csname#1\endcsname[1]
               254
                       {\csname check#1arg\endcsname{#3##1}}}
               \seqoftag Sequence of tags: \seqoftag\{\langle A \rangle\}\{\langle B \rangle\}\{\langle C \rangle\} ... to do!
               257 \newcommand{\seqoftag}[3]
               258
                    {\@for\itr:={#1}\do%
               259
                       {\expandafter\csedef{\itr#2}%
                         {\noexpand\csname #3\endcsname{\itr}}}
               260
              Sequence of commands: \sqoign{A}{\langle A \rangle} {\langle A \rangle} {\langle C \rangle} \dots \text{ to do!}
   \seqofcmd
               261 \newcommand{\seqofcmd}[3]
               262
                    {\@for\itr:={#1}\do%
               263
                       {\expandafter\csedef{\itr#2}%
               264
                         {\noexpand\csname #3\endcsname{\csname \itr\endcsname}}}}
               \seqoflatlow Sequence of Latin lowercase letters: \seqoflatlow{\langle A \rangle}{\langle B \rangle} ... to do!
               266 \newcommand{\seqoflatlow}
                     {\left(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\right)}
\seqoflatupp Sequence of Latin uppercase letters: \seqoflatupp\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
               268 \newcommand{\seqoflatupp}
                     {\left(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\right)}
\seqoflatlet Sequence of Latin letters: \seqoflatlet\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
               270 \newcommand{\seqoflatlet}[2]
                     {\seqoflatlow{#1}{\#2}\seqoflatupp{#1}{\#2}}
               Sequence of Greek lowercase letters: \seqofgrklow{\langle A \rangle}{\langle B \rangle} ... to do!
\seqofgrklow
               273 \newcommand{\seqofgrklow}
                     {\seqofcmd{alpha,beta,gamma,delta,epsilon,varepsilon,zeta,eta,theta,vartheta,%
               275
                     iota, kappa, varkappa, lambda, mu, nu, xi, omicron, pi, varpi, rho, varrho, sigma, %
               276
                     varsigma,tau,upsilon,phi,varphi,chi,psi,omega}}
              Sequence of Greek uppercase letters: \seqofgrkupp\{\langle A \rangle\}\{\langle B \rangle\}\ ... to do!
\seqofgrkupp
               277 \newcommand{\seqofgrkupp}
               278
                     {\seqofcmd{Alpha,Beta,Gamma,Delta,Epsilon,varEpsilon,Zeta,Eta,Theta,varTheta,%
               279
                     Iota, Kappa, varKappa, Lambda, Mu, Nu, Xi, Omicron, Pi, varPi, Rho, varRho, Sigma, %
               280
                     varSigma,Tau,Upsilon,Phi,varPhi,Chi,Psi,Omega}}
```

```
\seqofgrklet Sequence of Greek letters: \seqofgrklet\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
                                   281 \newcommand{\seqofgrklet}[2]
                                             {\seqofgrklow{#1}{#2}\seqofgrkupp{#1}{#2}}
                                   \seqoflow Sequence of lowercase letters: \seqoflow{\langle A \rangle}{\langle B \rangle} ... to do!
                                   284 \newcommand{\seqoflow}[2]
                                            {\seqoflatlow{#1}{#2}\seqofgrklow{#1}{#2}}
        \seqofupp Sequence of uppercase letters: \seqofupp\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
                                   286 \newcommand{\seqofupp}[2]
                                             {\seqoflatupp{#1}{#2}\seqofgrkupp{#1}{#2}}
        \seqoflet Sequence of all letters: \seqoflet\{\langle A \rangle\}\{\langle B \rangle\} ... to do!
                                   288 \newcommand{\seqoflet}[2]
                                             {\seqoflow{#1}{#2}\seqofupp{#1}{#2}}
                                   \newtxt ... to do!
                                        • \newtxt[\rmfamily]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                                        • \newtxt[\sffamily]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                                         • \newtxt[\ttfamily]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                                   294 \newcommandx{\newtxt}[5][1=, 3=, 4=, 5=]
                                              {\text{#1#2\txtsubsup[#1]{#3}{#4}#5}\xspace}
      \newtxtsty ... to do!
                                        • \newtxtsty{\rmfamily}{Name}[sub][sup][Ext] = "Name_sup_Ext"
                                        • \newtxtsty{\rmfamily}[\sffamily]{Name}[sub][sup][Ext] = "Name_sub_Ext"
                                         • \newtxtsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext] = "Name_sup_Ext"
                                   296 \newcommandx{\newtxtsty}[2][2=]
                                             {\newtxt[\defval{#2}{#1}]}
      \newtxtarg ... to do!
                                        • \newtxtarg[\rmfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_{\text{sup}}^{\text{sup}}Ext1(Arg)Ext2"
                                        • \newtxtarg[\sffamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_sup_Ext1(Arg)Ext2"
                                         • \newtxtarg[\ttfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_sub_Ext1(Arg)Ext2"
                                   298 \newcommandx{\newtxtarg}[7][1=, 3=, 4=, 5=, 7=]
                                              {\newtxt[#1]{#2}[#3][#4][#5\argmid{(}{#6}{)}#7]}
\newtxtargsty ... to do!
                                         \bullet \mathtt{Name}^{\sup}_{\sup} [\mathtt{Ext1}] \{\mathtt{Arg}\} [\mathtt{Ext2}] = \mathtt{``Name}^{\sup}_{\sup} [\mathtt{Ext1}] \{\mathtt{Arg}\} [\mathtt{Ext2}] = \mathtt{``Name}^{\sup}_{\sup} [\mathtt{Ext1}] (\mathtt{Arg}) [\mathtt{Ext2}] = \mathtt{``Name}^{\sup}_{\sup} [\mathtt{Ex
                                        • \newtxtargsty{\rmfamily}[\sffamily][\sup][\sup][\sup][\sup][\st1]{\Arg}[\st2] = "Name_sup_\sup \st1(\Arg)\st2"
                                         • \newtxtargsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Namesup Ext1(Arg)Ext2"
                                   300 \newcommandx{\newtxtargsty}[2][2=]
                                            {\newtxtarg[\defval{#2}{#1}]}
    \newtxtoarg ... to do!
                                        • \newtxtoarg[\rmfamily]{Name}[sub][sup][Arg] = "Name_sub_{sub}(Arg)"
                                         • \newtxtoarg[\sffamily]{Name}[sub][sup][Arg] = "Name_sub_(Arg)"
                                         • \newtxtoarg[\ttfamily]{Name}[sub][sup][Arg] = "Name_sub_(Arg)"
                                   302 \newcommandx{\newtxtoarg}[5][1=, 3=, 4=, 5=]
                                            {\newtxtarg[#1]{#2}[#3][#4][]{#5}[]}
```

```
\newtxtoargsty ... to do!
                                     • \mbox{\ensuremath{\text{Name}}[sub][sup][Arg]} = \mbox{\ensuremath{\text{Name}}} \mbox{\ensuremath{\text{sup}}(Arg)}"
                                      \bullet \verb| \newtxtoargsty{\mbox{\newtxtoargsty}[\mbox{\newtxtoargsty}[\mbox{\newtxtoargsty}] [\mbox{\newtxtoargsty}] [\mbox{\newtxtoargsty}[\mbox{\newtxtoargsty}] [\mbox{\newtxtoargsty}] [\mbox{\newtxt
                                304 \newcommandx{\newtxtoargsty}[2][2=]
                                305 {\newtxtoarg[\defval{#2}{#1}]}
       \newtxtpar ... to do!
                                     • \newtxtpar[\rmfamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_sup_Ext1[Par]Ext2"
                                     • \newtxtpar[\sffamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_sup}Ext1[Par]Ext2"
                                     • \newtxtpar[\ttfamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "Name_sub_Ext1[Par]Ext2"
                                306 \newcommandx{\newtxtpar}[7][1=, 3=, 4=, 5=, 7=]
                                        {\newtxt[#1]{#2}[#3][#4][#5\argmid{[}{#6}{]}#7]}
 \newtxtparsty ... to do!
                                     • \newtxtparsty{\rmfamily}{Name}[sub] [sup] [Ext1] {Par} [Ext2] = "Name_{sub}^{sup}Ext1[Par]Ext2"
                                     • \newtxtparsty{\rmfamily}[\sffamily]{\Name}[sub][sup][Ext1]{\Par}[Ext2] = "Name_sub_Ext1[\Par]Ext2"
                                     • \newtxtparsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext1]{Par}[Ext2] = "NamesubExt1[Par]Ext2"
                                308 \newcommandx{\newtxtparsty}[2][2=]
                                309 {\newtxtpar[\defval{#2}{#1}]}
     \newtxtopar ... to do!
                                     • \newtxtopar[\rmfamily]{Name}[sub][sup][Par] = "Name_sub_[Par]"
                                     • \newtxtopar[\sffamily]{Name}[sub][sup][Par] = "Name_sub_[Par]"
                                     • \newtxtopar[\ttfamily]{Name}[sub][sup][Par] = "Name_sub_Par]"
                                310 \newcommandx{\newtxtopar}[5][1=, 3=, 4=, 5=]
                                       {\newtxtpar[#1]{#2}[#3][#4][]{#5}[]}
\newtxtoparsty ... to do!
                                     • \mbox{\ensuremath{\mbox{Name}} (Sub) [Sup] [Par] = "Name}_{sub} [Par]"}
                                     \newtxtoparsty{\rmfamily}[\sffamily] {\Name} [sub] [sup] [Par] = "Name_sup[Par]"
                                     • \newtxtoparsty{\rmfamily}[\ttfamily]{\Name}[sub][sup][Par] = "Name_sup_[Par]"
                                312 \newcommandx{\newtxtoparsty}[2][2=]
                                       {\newtxtopar[\defval{#2}{#1}]}
       \txtsubsup ... to do!
                                     • \txtsubsup{sub}{} = "sub"; \txtsubsup{}{sup} = "sup"; \txtsubsup{sub}{sup} = "sub"
                                     • \txtsubsup[\sffamily]{Aa}{Bb} = "Bb" Aa
                                     • \txtsubsup[\ttfamily]{Aa}{Bb} = ^{\text{"Bb"}}_{Aa}
                                314 \newcommand{\txtsubsup}[3][]
                                        {\ensuremath{\empchk{#2}{_{\text{#1#2}}}\empchk{#3}{^{\text{#1#3}}}}}
                                \txt ... to do!
                                     • \text{txt{Name}}[\text{sub}][\text{sup}][\text{Ext}] = \text{"Name}_{\text{sub}}^{\text{sup}}\text{Ext"}
                                     • \txt[\schape]{Name}[sub][sup][Ext] = "NAME_{SUB}^{SUP}EXT"
                                     • \text{txt}[\text{bfseries}]{\text{Name}}[\text{sub}][\text{sup}][\text{Ext}] = \text{"Name}_{\text{sub}}^{\text{sup}}\text{Ext}"
                                317 \newcommand{\txt}
                                        {\newtxtsty{\txtsty}}
             \txtarg ... to do!
                                     • \text{txtarg{Name}}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Arg}}[\text{Ext2}] = \text{"Name}_{\text{sub}}^{\text{sup}}\text{Ext1}(\text{Arg})\text{Ext2}"
                                     • \txtarg[\scshape]{Name}[sub] [sup] [Ext1] {Arg}[Ext2] = "NAME_SUB_EXT1(ARG)EXT2"
```

```
• \txtarg[\bfseries]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name_{sub}^{sup}Ext1(Arg)Ext2"
               319 \newcommand{\txtarg}
               320 {\newtxtargsty{\txtsty}}
   \txtoarg ... to do!
                  • \txtoarg{Name}[sub][sup][Arg] = "Name<sup>sup</sup><sub>sub</sub>(Arg)"
                  • \txtoarg[\scshape]{Name}[sub][sup][Arg] = "NAME_SUB(ARG)"
                  • \t \ [sub] [sup] [Arg] = "Name \ [sub]" [Arg] = "Name \ [sub]"
               321 \newcommand{\txtoarg}
               322 {\newtxtoargsty{\txtsty}}
    \txtpar ... to do!
                  • \text{txtpar{Name}[sub][sup][Ext1]{Par}[Ext2]} = \text{"Name}_{\text{sub}}^{\text{sup}}\text{Ext1}[Par]\text{Ext2"}
                  • \txtpar[\scshape]{Name}[sub][sup][Ext1]{Par}[Ext2] = "NAME_{SUB}^{SUP}EXT1[PAR]EXT2"
                  • \txtpar[\bfseries] {Name} [sub] [sub] [Ext1] {Par} [Ext2] = "Name sub Ext1[Par] Ext2"
               323 \newcommand{\txtpar}
               324 {\newtxtparsty{\txtsty}}
   \txtopar ... to do!
                  • \text{txtopar{Name}[sub][sup][Par]} = \text{"Name}_{\text{sub}}^{\text{sup}}[Par]"
                  • \txtopar[\schape]{Name}[sub][sup][Par] = "NAME_{SUB}^{SUP}[PAR]"
                  • \t \ [Sub] [Sup] [Par] = "Name \ [Par]"
               325 \newcommand{\txtopar}
                    {\newtxtoparsty{\txtsty}}
    \txtsty ... to do!
               327 \newcommand{\txtsty}
                    {\mdseries\upshape\rmfamily}
               \cmdtxt ... to do!
                  • \cmdtxt{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                    \mathsf{Name}[\mathsf{sub}][\mathsf{sup}][\mathsf{Ext}] = \mathsf{Name}^{\mathsf{SUP}}_{\mathsf{SUB}}[\mathsf{Ext}]
               330 \newcommand{\cmdtxt}[1]
                    {\csdef{txt#1}{\newtxtsty{\csname txtsty#1\endcsname}}}
 \cmdtxtarg ... to do!
                  • \cmdtxtarg{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                    \texttt{\txtargNewCmd}\{\texttt{Name}\}[\texttt{sub}][\texttt{sup}][\texttt{Ext1}]\{\texttt{Arg}\}[\texttt{Ext2}] = \texttt{Name}^{\texttt{SUP}}_{\texttt{SUB}}\texttt{Ext1}(\texttt{Arg})\texttt{Ext2}
               332 \newcommand{\cmdtxtarg}[1]
               333 {\csdef{txtarg#1}{\newtxtargsty{\csname txtsty#1\endcsname}}}
\cmdtxtoarg ... to do!
                  • \cmdtxtoarg{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                    \t Name [sub] [sup] [Arg] = Name_{SUB} (Arg)
               334 \newcommand{\cmdtxtoarg}[1]
                    {\csdef{txtoarg#1}{\newtxtoargsty{\csname txtsty#1\endcsname}}}
 \cmdtxtpar ... to do!
                  • \cmdtxtpar{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                    \txtparNewCmd{Name}[sub][sup][Ext1]{Par}[Ext2] = NAME_SUB_EXT1[PAR]EXT2
               336 \newcommand{\cmdtxtpar}[1]
                    {\csdef{txtpar#1}{\newtxtparsty{\csname txtsty#1\endcsname}}}
\cmdtxtopar ... to do!
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\cmdtxtopar{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                  \verb|\txtoparNewCmd{Name}[sub][sup][Par] = \verb|\txtoparNewCmd{Name}[Par]|
                           338 \newcommand{\cmdtxtopar}[1]
                                  {\csdef{txtopar#1}{\newtxtoparsty{\csname txtsty#1\endcsname}}}
     \cmdtxtall ... to do!
                               • \cmdtxtall{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
                                  \verb|\txtNewCmd{Name}[sub][sup][Ext] = \verb|\NAME|_{SUB}^{SUP}Ext|
                                  \texttt{\txtargNewCmd}[Sub][Sub][Ext1] \{Arg\}[Ext2] = \texttt{Name}_{SUB}^{SUP}Ext1(Arg)Ext2
                                  \verb|\txtoargNewCmd{Name}[sub][sup][Arg] = \verb|\Name|^{SUP}(Arg)
                                  \label{eq:local_local_transform} $$ \text{LxtparNewCmd}_{Name}[sub][sup][Ext1]_{Par}[Ext2] = Name_{SUB}^{SUP}Ext1[Par]Ext2$
                                  \t \ [sub] [sup] [Par] = NAME_{SUB}^{SUP} [PAR]
                           340 \newcommand{\cmdtxtall}[1]
                           341 {\cmdtxt{#1}\cmdtxtarg{#1}\cmdtxtoarg{#1}\cmdtxtpar{#1}\cmdtxtopar{#1}}
                           \usrtxt ... to do!
                               • \usrtxt{cmdName}{Suf}{}; \cmdNameSuf = cmdName
                                  \t {cmdName} {Suf} {arg}; \t {Arg} = cmdName(Arg)
                                  \t {cmdName} {Suf} {par}; \t {Par} = cmdName [Par]
                               • \usrtxt{cmdName}{Suf}{}[newName]; \cmdNameSuf = newName
                                  \usrtxt{cmdName}{Suf}{arg}[newName]; \cmdNameSuf{Arg} = newName(Arg)
                                  343 \newcommandx{\usrtxt}[4][4=]
                                  {\csdef{#1#2}{\csname txt#3\endcsname{\defval{#4}{#1}}}}
                           \newmth ... to do!
                               • \newmth[mathsf]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                               • \newmth[mathtt]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                           349 \newcommandx{\newmth}[5][1=, 3=, 4=, 5=]
                                 {\ensuremath{\csname#1\endcsname{#2}\mthsubsup{#3}{#4}#5}}
     \newmthsty ... to do!
                               • \newmthsty{mathrm}{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                               • \newmthsty{mathrm} [mathsf] {Name} [sub] [sup] [Ext] = "Name_{sub}^{sup}Ext"
                               • \newmthsty{mathrm}[mathtt]{Name}[sub][sup][Ext] = "Name_{sub}^{sup}Ext"
                           351 \newcommandx{\newmthsty}[2][2=]
                           352 \{ \left( \frac{\#2}{\#1} \right) \}
     \newmtharg ... to do!
                               • \newmtharg[mathrm] {Name} [sub] [sup] [Ext1] {Arg} [Ext2] = "Name _{sub}^{sup} Ext1(Arg) Ext2"
                               \bullet \ \texttt{\ \ } [\texttt{Ext1}] \ \texttt{\ \ } [\texttt{Ext2}] = \ \texttt{\ \ \ } [\texttt{Ext2}] = \ \texttt{\ \ \ } [\texttt{Ext2}] = \ \texttt{\ \ \ } [\texttt{\ \ \ } [\texttt{\ \ \ } ] 
                                \bullet \verb| \newmtharg[mathtt]{Name}[sub][sup][Ext1]{Arg}[Ext2] = \verb| "Name| | sub| Ext1(Arg)Ext2" |
                           353 \newcommandx{\newmtharg}[7][1=, 3=, 4=, 5=, 7=]
                                  {\newmth[#1]{#2}[#3][#4][#5\argmid{\!\left(}{#6}{\right)\arglef{\!}{#7}}]}
\newmthargsty ... to do!
                                \bullet \verb| \norm{sup}{mathrm}{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name {sup}{sub}Ext1(Arg)Ext2" \\
                               • \newmthargsty{mathrm}[mathsf]{Name}[sub] [sub] [Ext1] {Arg} [Ext2] = "Nam_{sup}^{sup}Ext1(Arg)Ext2"
                                \bullet \verb| \newmthargsty{mathrm}| [mathtt]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "Name|_{sub}^{sup} Ext1(Arg) Ext2" | \newmthargsty{mathrm}| [mathtt]|_{sub}^{sup} Ext1(Arg) | \newmthargsty{mathrm}|_{sub}^{sup} Ext1(Arg) | \newmthargsty{mathrm}|_{sub}^{sup} | \newmthargsty{mat
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355 \newcommandx{\newmthargsty}[2][2=]
                                                                       {\newmtharg[\defval{#2}{#1}]}
          \newmthoarg ... to do!
                                                                 • \newmthoarg[mathrm] {Name} [sub] [sup] [Arg] = "Name_{sub}^{sup}(Arg)"
                                                                 • \newmthoarg[mathsf]{Name}[sub][sup][Arg] = "Name_{sub}^{sup}(Arg)"
                                                                 • \newmthoarg[mathtt]{Name}[sub][sup][Arg] = "Name_{sub}^{sup}(Arg)"
                                                         357 \newcommandx{\newmthoarg}[5][1=, 3=, 4=, 5=]
                                                                          {\text{newmtharg}}[#1]{#2}[#3][#4][]{#5}[]}
\newmthoargsty ... to do!
                                                                 • \newmthoargsty{mathrm}{Name}[sub][sup][Arg] = "Name_{sub}^{sup}(Arg)"
                                                                 • \newmthoargsty{mathrm} [mathsf] {Name} [sub] [sup] [Arg] = "Name_{sub}^{sup}(Arg)"
                                                                  \qquad \qquad \texttt{`newmthoargsty{mathrm}[mathtt]{Name}[sub][sup][Arg]} = \texttt{``Name}_{sub}^{sup}(Arg) \texttt{''} \\
                                                         359 \newcommandx{\newmthoargsty}[2][2=]
                                                                          {\newmthoarg[\defval{#2}{#1}]}
             \newmthpar ... to do!
                                                                 • \newmthpar[mathrm] {Name} [sub] [sup] [Ext1] {Par} [Ext2] = "Name _{sub}^{sup} Ext1[Par] Ext2"
                                                                 • \newmthpar[mathtt] {Name} [sub] [sup] [Ext1] {Par} [Ext2] = "Name _{sub}^{sup} Ext1[Par] Ext2"
                                                         361 \newcommandx{\newmthpar}[7][1=, 3=, 4=, 5=, 7=]
                                                                         {\newmth[#1]{#2}[#3][#4][#5\argmid{\!\left[}{#6}{\right]\arglef{\!}{#7}}]}
   \newmthparsty ... to do!
                                                                  \bullet \verb| \normal| \normal| \verb| \normal| \verb| \normal| \verb| \normal| \verb| \normal| \
                                                                  \bullet \texttt{ \  \  } \texttt{[Ext1] \{Par\}[Ext2]} = \texttt{``Name}_{sub}^s Ext1[Par] Ext2" \\
                                                                 • \newmthparsty{mathrm}[mathtt]{Name}[sub] [sup] [Ext1]{Par} [Ext2] = "Name _{sub}^{sup}Ext1[Par]Ext2"
                                                         363 \newcommandx{\newmthparsty}[2][2=]
                                                                        {\newmthpar[\defval{#2}{#1}]}
          \newmthopar ... to do!
                                                                  \bullet \verb| \newmthopar[mathrm] {Name} [sub] [sup] [Par] = "Name_{sub}^{sup} [Par]" 
                                                                 • \newmthopar[mathtt]{Name}[sub][sup][Par] = "Name_{sub}^{sup}[Par]"
                                                         365 \newcommandx{\newmthopar}[5][1=, 3=, 4=, 5=]
                                                                         {\newmthpar[#1]{#2}[#3][#4][]{#5}[]}
\newmthoparsty ... to do!
                                                                 \bullet \ \texttt{\ \ } [sub] \ [sup] \ [Par] = "Name_{sub}^{sup} [Par]"
                                                                 • \newmthoparsty{mathrm} [mathsf] {Name} [sub] [sup] [Par] = "Name_{sub}^{sup}[Par]"
                                                                  \bullet \ \texttt{\  \  } \ \texttt{\  \  \  } \ \texttt{\  \  } \ \texttt{\  \  \  \  } \ \texttt{\  \  \  \ } \ \texttt{\  \  \  } \ \texttt{\  \  \  } \ \texttt{\  \  \  } \ \texttt{\  \  \  \ } \ \texttt{\  \ 
                                                         367 \newcommandx{\newmthoparsty}[2][2=]
                                                                       {\mathbb{L}}{\mathbb{L}}
             \mthsubsup ... to do!
                                                         369 \newcommand{\mthsubsup}[2]
                                                                     {\empchk{#1}{_{#1}}\empchk{#2}{^{#2}\!}}
                                                        \mth ... to do!
                                                                 • \mathbb{Sup}[Sup][Ext] = "Name^{sup}_{sub}Ext"
                                                                 • \mathbf{Name}_{sub}^{sup}[\mathbf{Ext}] = \mathbf{Name}_{sub}^{sup}Ext
                                                                 • \mbox{\mbox{\tt mth[mathtt]}{\tt Name}[sub][sup][Ext] = "Name}_{sub}^{sup}Ext"}
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372 \newcommand{\mth}
                                                                                                                   373
                                                                                                                                                      {\newmthsty{\mthsty}}
                                \mtharg ... to do!
                                                                                                                                       • \mtharg{Name} [sub] [sup] [Ext1] {Arg} [Ext2] = "Name_{sub}^{sup}Ext1(Arg)Ext2"
                                                                                                                                       • \mathbb{E}[xt1] = \mathbb{E}[xt2] = \mathbb{E}[xt1] = \mathbb{E}[xt2] = \mathbb{E}[xt1] = \mathbb{E}[xt2]
                                                                                                                                        • \mtharg[mathtt] {Name} [sub] [sup] [Ext1] {Arg} [Ext2] = "Name _{sub}^{sup} Ext1(Arg) Ext2"
                                                                                                                   374 \mbox{ }\mbox{newcommand{\mbox{\mbox{\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{}\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{}\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{}\box{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\m
                                                                                                                                                       {\newmthargsty{\mthsty}}
                         \mthoarg ... to do!
                                                                                                                                       • \mthoarg{Name}[sub][sup][Arg] = "Name_{sub}^{sup}(Arg)"
                                                                                                                                       • \mthoarg[mathbf]{Name}[sub][sup][Arg] = "Name_{sub}^{sup}(Arg)"
                                                                                                                                        \bullet \ \ \texttt{\bar{lambda}[mathtt]{Name}[sub][sup][Arg]} = \texttt{\bar{ame}}^{sup}_{sub}(Arg)"
                                                                                                                   376 \newcommand{\mthoarg}
                                                                                                                                                              {\newmthoargsty{\mthsty}}
                                \mthpar ... to do!
                                                                                                                                       \bullet \  \, \texttt{\bare}[\mathtt{Sub}] \  \, \texttt{\bare}[\mathtt{Ext1}] \  \, \texttt{\bare}[\mathtt{Ext2}] \  \, = \  \, "Name^{sup}_{sub} Ext1[Par] Ext2"
                                                                                                                                       \bullet \  \, \texttt{\bare}[mathbf] \  \, \texttt{\bare}[sub] \  \, \texttt{\bare}[Ext1] \  \, \texttt{\bare}[Ext2] \  \, = \  \, \text{\bare}[mathbf] \  \, \texttt{\bare}[Ext1] \  \, \texttt{\bare}[Ext2] \  \, = \  \, \text{\bare}[mathbf] \  \, \texttt{\bare}[Ext2] \  \, = \  \, \text{\bare}[Ext2] \  \, = 
                                                                                                                                       \bullet \  \, \texttt{\bare}[mathtt] \, \{\texttt{Name}\} \, [\texttt{sub}] \, [\texttt{Ext1}] \, \{\texttt{Par}\} \, [\texttt{Ext2}] \, = \, \text{\bare} \, \sup_{sub} Ext1 [Par] Ext2 \, \text{\bare} \, [\texttt{Ext2}] \, = \, \text{
                                                                                                                    378 \newcommand{\mthpar}
                                                                                                                                                      {\newmthparsty{\mthsty}}
                         \mthopar ... to do!
                                                                                                                                       • \mthopar[mathbf] {Name} [sub] [sup] [Par] = "Name_{sub}^{sup} [Par]"
                                                                                                                                        • \mthopar[mathtt] {Name} [sub] [sup] [Par] = "Name _{sub}^{sup}[Par]"
                                                                                                                   380 \newcommand{\mthopar}
                                                                                                                                                      {\newmthoparsty{\mthsty}}
                                 \mthsty ... to do!
                                                                                                                  382 \newcommand{\mthsty}
                                                                                                                  383 {}
                                                                                                                   \cmdmth ... to do!
                                                                                                                                       \bullet \ \mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mb
                                                                                                                                                      \mbox{\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\
                                                                                                                    385 \newcommand{\cmdmth}[1]
                                                                                                                                                   {\csdef{mth#1}{\newmthsty{mthsty#1}}}
        \cmdmtharg ... to do!
                                                                                                                                        • \cmdmtharg{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                                                       \mbox{\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\
                                                                                                                    387 \newcommand{\cmdmtharg}[1]
                                                                                                                                                {\csdef{mtharg#1}{\newmthargsty{mthsty#1}}}
                                                                                                                  388
\cmdmthoarg ... to do!
                                                                                                                                        • \cmdmthoarg{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                                                                                                      \verb|\mbox| \verb| [sub] [sup] [Arg] = \verb|\mbox| \verb| [sup] [Arg] = \verb|\mbox| \verb| [sub] [sup] |
                                                                                                                   389 \newcommand{\cmdmthoarg}[1]
                                                                                                                                                    {\csdef{mthoarg#1}{\newmthoargsty{mthsty#1}}}
        \cmdmthpar ... to do!
```

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\cmdmthpar{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                      391 \newcommand{\cmdmthpar}[1]
                                                                       {\csdef{mthpar#1}{\newmthparsty{mthsty#1}}}
       \cmdmthopar
                                                   ... to do!
                                                                • \cmdmthopar{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                      \mbox{\t Mame} [sub] [sup] [Par] = \mbox{\t Name} sup [Par]
                                                       393 \newcommand{\cmdmthopar}[1]
                                                                     {\csdef{mthopar#1}{\newmthoparsty{mthsty#1}}}
          \cmdmthall ... to do!
                                                                • \cmdmthall{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
                                                                       \verb|\mthNewCmd{Name}[sub][sup][Ext]| = \verb|\mame| sub | Ext| = \verb|\mame| sub | Ext| = \verb|\mame| sub | Ext| |
                                                                       \verb|\mathargNewCmd{Name}[sub][sup][Ext1]{Arg}[Ext2] = \verb|\mathargNewCmd{Name}[sub][sup][ext1][Arg][ext2] = \verb|\mathargNewCmd{Name}[sub][sub][sup][ext1][arg][ext2] = \verb|\mathargNewCmd{Name}[sub][sub][sub][ext2][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ext2][sub][ex
                                                                       \verb|\mbox| \verb| Sup| [Arg] = \verb|\mbox| mame| sup| [sup] [Arg] = \verb|\mbox| mame| sup| (Arg)
                                                                       \verb|\mbox| \verb| mthparNewCmd{Name}[sub][sup][Ext1]{Par}[Ext2] = \verb|\mbox| \verb| mame| sub| Ext1[Par]Ext2|
                                                                      \verb|\mbox| | [sub] [sup] [Par] = \verb|\mbox| | [sub] [Par] = \verb|\mbox| | [sub] | [
                                                       395 \newcommand{\cmdmthall}[1]
                                                                      {\cmdmth{#1}\cmdmtharg{#1}\cmdmthoarg{#1}\cmdmthpar{#1}\cmdmthopar{#1}}
                                                       \usrmth ... to do!
                                                                • \sl = cmdName 
                                                                      \verb|\usrmth{cmdName}{Suf}{par}[newName]; \verb|\cmdNameSuf}{Par} = newName[Par]
                                                        398 \newcommandx{\usrmth}[4][4=]
                                                                       {\csdef{#1#2}{\csname mth#3\endcsname{\defval{#4}{#1}}}}
                                                      \usrmthlatlow ... to do!
                                                       401 \newcommandx{\usrmthlatlow}[4][4=]
                                                                      {\usrmth{#1}{#2}{#3}[#4]\seqoflatlow{#1#2}{mth#3}}
\usrmthlatupp ... to do!
                                                       403 \verb|\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcommandx{\newcomman
                                                                      {\usrmth{#1}{#2}{#3}[#4]\seqoflatupp{#1#2}{mth#3}}
\usrmthlatlet ... to do!
                                                       405 \newcommandx{\usrmthlatlet}[4][4=]
                                                                      {\usrmth{#1}{#2}{#3}[#4]\seqoflatlet{#1#2}{mth#3}}
\usrmthgrklow ... to do!
                                                       407 \newcommandx{\usrmthgrklow}[4][4=]
                                                                        {\usrmth{#1}{#2}{#3}[#4]\seqofgrklow{#1#2}{mth#3}}
\usrmthgrkupp ... to do!
                                                       409 \newcommandx{\usrmthgrkupp}[4][4=]
                                                                       {\usrmth{#1}{#2}{#3}[#4]\seqofgrkupp{#1#2}{mth#3}}
\usrmthgrklet ... to do!
                                                       411 \newcommandx{\usrmthgrklet}[4][4=]
                                                                        {\usrmth{#1}{#2}{#3}[#4]\seqofgrklet{#1#2}{mth#3}}
          \usrmthlow ... to do!
                                                       413 \newcommandx{\usrmthlow}[4][4=]
                                                                      {\usrmth{#1}{#2}{#3}[#4]\seqoflow{#1#2}{mth#3}}
```

```
\usrmthupp ... to do!
                               415 \newcommandx{\usrmthupp}[4][4=]
                               416 {\usrmth{#1}{#2}{#3}[#4]\seqofupp{#1#2}{mth#3}}
       \usrmthlet ... to do!
                               417 \newcommandx{\usrmthlet}[4][4=]
                               418 {\usrmth{#1}{#2}{#3}[#4]\seqoflet{#1#2}{mth#3}}
                                423 \iftxtgen@
   \txtdef, ... to do!
                                    ullet \txtdef{Name}[sub][sup][Ext] = Name^{sup}_{sub}Ext
                                     \qquad \qquad \bullet \  \  \, \texttt{`txtargdef\{Name\}[sub][sup][Ext1]\{Arg\}[Ext2]} = Name_{sub}^{sup}Ext1(Arg)Ext2 
                                    ullet \txtpardef{Name}[sub][sup][Ext1]{Par}[Ext2] = Name_{ext}^{sup}Ext1/Par]Ext2
                                424 %% Style for Definitions
                               425 \verb|\def|\newcommand{\txtstydef}{\normalfont\bfseries\em}|
       \cmdtxtdef ... to do!
                                    • \cmdtxtdef{cmdName};
                                        \verb|\cmdName[sub][sub][ext]| = cmdName_{sub}^{sub}ext
                                    • \cmdtxtdef{cmdName}[newName];
                                        \colon = newName[sub][sub][ext] = newName^{sub}_{sub}ext
                                426 \newcommandx{\cmdtxtdef}[2][2=]
                                       {\usrtxt{#1}{}{def}[#2]}
 \cmdtxtargdef ... to do!
                                    • \cmdtxtargdef{cmdName};
                                        \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                    • \cmdtxtargdef{cmdName}[newName];
                                        \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = newName_{sub}^{sub}ext1(arg)ext2
                                428 \newcommandx{\cmdtxtargdef}[2][2=]
                               429 {\usrtxt{#1}{}{argdef}[#2]}
\cmdtxtoargdef ... to do!
                                    \cmdtxtoargdef{cmdName};
                                        \colon colon col
                                    • \cmdtxtoargdef{cmdName}[newName];
                                        \colon = newName[sub][sub][arg] = newName^{sub}_{sub}(arg)
                                430 \newcommandx{\cmdtxtoargdef}[2][2=]
                                431 {\usrtxt{#1}{}{oargdef}[#2]}
 \cmdtxtpardef ... to do!
                                    \cmdtxtpardef{cmdName};
                                        \cmdName[sub][sub][ext1]\{par\}[ext2] = cmdName_{sub}^{sub}ext1/par/ext2
                                    \cmdtxtpardef{cmdName}[newName];
                                        \verb|\cmdName[sub][sub][ext1]{par}[ext2] = newName_{sub}^{sub}ext1[par]ext2
                                432 \newcommandx{\cmdtxtpardef}[2][2=]
                               433 {\usrtxt{#1}{}{pardef}[#2]}
\cmdtxtopardef ... to do!
                                    \cmdtxtopardef{cmdName};
                                        \cmdName[sub][sub][par] = cmdName_{sub}^{sub}[par]
                                    • \cmdtxtopardef{cmdName}[newName];
                                        \verb|\cmdName[sub][sub][par]| = newName_{sub}^{sub}/par|
```

```
434 \newcommandx{\cmdtxtopardef}[2][2=]
                    435 {\usrtxt{#1}{}{opardef}[#2]}
  \txtabr, ... to do!
                       ullet \txtabr{Name}[sub][sup][Ext] = Name_{
m sub}^{
m sup}Ext
                       • \txtargabr{Name} [sub] [sup] [Ext1] {Arg} [Ext2] = Name_{\text{sub}}^{\text{sup}} Ext1(Arg) Ext2
                        • \txtparabr{Name} [sub] [sup] [Ext1] {Par} [Ext2] = Name_{\mathrm{sub}}^{\mathrm{sup}} Ext1[Par]Ext2
                    436 %% Style for Abbreviations
                    437 \cmdtxtall{abr}\newcommand{\txtstyabr}{\em}
    \cmdtxtabr ... to do!
                       \cmdtxtabr{cmdName};
                          \verb|\cmdName[sub][sub][ext]| = cmdName_{\rm sub}^{\rm sub}ext
                        • \cmdtxtabr{cmdName}[newName];
                          \colon dName[sub][sub][ext] = newName_{sub}^{sub}ext
                    438 \verb|\newcommandx{\cmdtxtabr}[2][2=]
                         {\usrtxt{#1}{}{abr}[#2]}
 \cmdtxtargabr ... to do!
                       • \cmdtxtargabr{cmdName};
                          \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = cmdName^{\text{sub}}_{\text{sub}}ext1(arg)ext2
                        • \cmdtxtargabr{cmdName} [newName];
                          \cmdName[sub][sub][ext1]{arg}[ext2] = newName_{sub}^{sub}ext1(arg)ext2
                    440 \newcommandx{\cmdtxtargabr}[2][2=]
                    441 {\usrtxt{#1}{}{argabr}[#2]}
\cmdtxtoargabr ... to do!
                       • \cmdtxtoargabr{cmdName};
                          \cmdName[sub][sub][arg] = cmdName_{sub}^{sub}(arq)
                        • \cmdtxtoargabr{cmdName}[newName];
                          \colon = newName[sub][sub][arg] = newName[sub](arg)
                    442 \newcommandx{\cmdtxtoargabr}[2][2=]
                    443 {\usrtxt{#1}{}{oargabr}[#2]}
 \cmdtxtparabr ... to do!
                       • \cmdtxtparabr{cmdName};
                          \cmdName[sub][sub][ext1][par][ext2] = cmdName_{sub}^{sub}ext1[par]ext2
                        • \cmdtxtparabr{cmdName} [newName];
                          \verb|\cmdName[sub][sub][ext1]{par}[ext2] = newName_{sub}^{sub}ext1[par]ext2|
                    444 \newcommandx{\cmdtxtparabr}[2][2=]
                         {\usrtxt{#1}{}{parabr}[#2]}
\cmdtxtoparabr ... to do!
                       • \cmdtxtoparabr{cmdName};
                          \cmdName[sub] [sub] [par] = cmdName_{\text{sub}}^{\text{sub}}/par
                        • \cmdtxtoparabr{cmdName}[newName];
                          \colon dName[sub][sub][par] = newName_{sub}^{sub}/par]
                    446 \newcommandx{\cmdtxtoparabr}[2][2=]
                         {\usrtxt{#1}{}{oparabr}[#2]}
                    \txtname, ... to do!
                       • \text{txtname}\{\text{Name}\}[\text{sub}][\text{Sup}][\text{Ext}] = \text{Name}_{\text{Sup}}^{\text{SUP}}\text{Ext}
                        • \text{txtargname}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}]\{\text{Arg}\}[\text{Ext2}] = \text{Name}_{\text{SUB}}^{\text{SUP}}\text{Ext1}(\text{Arg})\text{Ext2}
                        • \text{txtparname}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}]\{\text{Par}\}[\text{Ext2}] = \text{Name}_{\text{SUB}}^{\text{SUP}}\text{Ext1}[\text{Par}]\text{Ext2}
```

```
449 %% Style for Names
                                          450 \cmdtxtall{name}\newcommand{\txtstyname}{\normalfont\mdseries\scshape\sffamily}
         \cmdtxtname ... to do!
                                                \cmdtxtname{cmdName};
                                                    \cmdName[sub][sub][ext] = CMDNAME_{SUB}^{SUB}EXT
                                                • \cmdtxtname{cmdName}[newName];
                                                    \c Mame[sub][sub][ext] = NEWNAME_{SUB}^{SUB}EXT
                                          451 \newcommandx{\cmdtxtname}[2][2=]
                                         452 {\usrtxt{#1}{}{name}[#2]}
  \cmdtxtargname ... to do!
                                               • \cmdtxtargname{cmdName};
                                                    \label{lem:cmdName} $$ \operatorname{[sub][sub][ext1]}_{arg}[ext2] = \operatorname{CMDNAME}_{SUB}^{SUB} \operatorname{EXT1}(\operatorname{ARG}) \operatorname{EXT2} $$
                                               • \cmdtxtargname{cmdName}[newName];
                                                    \cmdName[sub][sub][ext1]{arg}[ext2] = NEWNAME_{SUB}^{SUB}EXT1(ARG)EXT2
                                          453 \newcommandx{\cmdtxtargname}[2][2=]
                                         454 {\usrtxt{#1}{}{argname}[#2]}
\cmdtxtoargname ... to do!
                                                \cmdtxtoargname{cmdName};
                                                    \colon = CMDNAME_{SUB}^{SUB}(ARG)
                                               • \cmdtxtoargname{cmdName}[newName];
                                                    \colon = NEWNAME_{SUB}^{SUB}(ARG)
                                          455 \newcommandx{\cmdtxtoargname}[2][2=]
                                                    {\usrtxt{#1}{}{oargname}[#2]}
  \cmdtxtparname ... to do!
                                                \cmdtxtparname{cmdName};
                                                    \verb|\cmdName[sub][sub][ext1]{par}[ext2] = \verb|\cmdName[sub]| = \verb|\cmdNam
                                               • \cmdtxtparname{cmdName}[newName];
                                                    457 \newcommandx{\cmdtxtparname}[2][2=]
                                                   {\usrtxt{#1}{}{parname}[#2]}
\cmdtxtoparname ... to do!
                                                \cmdtxtoparname{cmdName};
                                                    \verb|\cmdName[sub][par]| = CMDNAME_{SUB}^{SUB}[PAR]|
                                                • \cmdtxtoparname{cmdName}[newName];
                                                    \verb|\cmdName[sub][sub][par]| = NEWNAME_{SUB}^{SUB}[PAR]|
                                          459 \newcommandx{\cmdtxtoparname}[2][2=]
                                         460 {\usrtxt{#1}{}{oparname}[#2]}
       \txtcom, ... to do!
                                               • \t \text{Name} [sub] [sup] [Ext] = NAME_{SUB}^{SUP} EXT
                                               • \t xtargcom{Name}[sub][sup][Ext1]{Arg}[Ext2] = NAME_{SUB}^{SUP}EXT1(ARG)EXT2
                                                 \qquad \qquad \text{$$ \text{txtparcom{Name}[sub][sup][Ext1]{Par}[Ext2] = NAME}_{SUB}^{SUP}EXT1[PAR]EXT2} 
                                          461 %% Style for Complexities
                                         462 \cmdtxtall{com}\newcommand{\txtstycom}{\normalfont\mdseries\scshape\rmfamily}
            \cmdtxtcom ... to do!
                                               • \cmdtxtcom{cmdName};
                                                    \verb|\cmdName[sub][sub][ext]| = \texttt{CMDNAME}^{\texttt{SUB}}_{\texttt{SUB}} \texttt{EXT}
                                                • \cmdtxtcom{cmdName} [newName];
                                                    \c Mame[sub][sub][ext] = NEWNAME_{SUB}^{SUB}EXT
                                          463 \newcommandx{\cmdtxtcom}[2][2=]
                                          464 {\usrtxt{#1}{}{com}[#2]}
```

```
\cmdtxtargcom ... to do!
                      • \cmdtxtargcom{cmdName};
                         \verb|\cmdName[sub][sub][ext1]{arg}[ext2] = CMDNAME_{SUB}^{SUB}EXT1(ARG)EXT2
                      • \cmdtxtargcom{cmdName}[newName];
                         465 \newcommandx{\cmdtxtargcom}[2][2=]
                         {\usrtxt{#1}{}{argcom}[#2]}
\cmdtxtoargcom ... to do!
                      • \cmdtxtoargcom{cmdName};
                         \cmdName[sub][sub][arg] = CMDNAME_{SUB}^{SUB}(ARG)
                       \cmdtxtoargcom{cmdName}[newName];
                         \verb|\cmdName[sub][sub][arg]| = NEWNAME_{SUB}^{SUB}(ARG)
                    467 \newcommandx{\cmdtxtoargcom}[2][2=]
                        {\usrtxt{#1}{}{oargcom}[#2]}
 \cmdtxtparcom ... to do!
                      • \cmdtxtparcom{cmdName};
                         \verb|\cmdName[sub][sub][ext1]{par}[ext2] = \verb|\cmdName[sub][sub][ext1]{par}[ext2]
                       • \cmdtxtparcom{cmdName}[newName];
                         \label{lem:lemma:equation:lemma:equation:ext1} $$ \operatorname{cmdName}[\operatorname{sub}][\operatorname{sub}][\operatorname{ext1}][\operatorname{par}][\operatorname{ext2}] = \operatorname{NEWNAME}_{\operatorname{SUB}}^{\operatorname{SUB}} \operatorname{EXT1}[\operatorname{PAR}] \operatorname{EXT2} $$
                    469 \verb|\newcommandx{\cmdtxtparcom}[2][2=]
                   470 {\usrtxt{#1}{}{parcom}[#2]}
\cmdtxtoparcom ... to do!
                      • \cmdtxtoparcom{cmdName};
                         \label{eq:cmdNamesub} $$ \cmdName[sub][sub][par] = CMDNAME_{SUB}^{SUB}[PAR] $$
                       \cmdtxtoparcom{cmdName}[newName];
                         \verb|\cmdName[sub][sub][par]| = NEWNAME_{SUB}^{SUB}[PAR]|
                    471 \newcommandx{\cmdtxtoparcom}[2][2=]
                        {\usrtxt{#1}{}{oparcom}[#2]}
                    473 \fi
                   478 \ifmthgen@
 \mthname, ... to do!
                      • \mthname{NAME}[sub][sup][Ext] = \mathcal{NAME}_{sub}^{sup}Ext
                      \bullet \  \, \texttt{\bar{NAME}[sub][sup][Ext1]\{Arg\}[Ext2]} = \mathcal{NAME}^{sup}_{sub} Ext1(Arg) Ext2
                       • \mthparname{NAME}[sub][sup][Ext1]{Par}[Ext2] = \mathcal{NAME}^{sup}_{sub}Ext1[Par]Ext2
                   479 %% Style for Names
                   480 \mbox{ } \mbox{mthall{name}\newcommand{\mbox{mthstyname}{\mbox{mathcal}}}
   \AName, ... to do!
                   \mathcal{A},\,\mathcal{B},\,\mathcal{C},\,\mathcal{D},\,\mathcal{E},\,\mathcal{F},\,\mathcal{G},\,\mathcal{H},\,\mathcal{I},\,\mathcal{J},\,\mathcal{K},\,\mathcal{L},\,\mathcal{M},\,\mathcal{N},\,\mathcal{O},\,\mathcal{P},\,\mathcal{Q},\,\mathcal{R},\,\mathcal{S},\,\mathcal{T},\,\mathcal{U},\,\mathcal{V},\,\mathcal{W},\,\mathcal{X},\,\mathcal{Y},\,\mathcal{Z}
                   481 \seqoflatupp{Name}{mthname}
   \cmdmthname ... to do!
                      • \cmdmthname{CMDNAME};
                         \CMDNAMEName[sub][sub][ext] = \mathcal{CMDNAME}_{sub}^{sub}ext
                       • \cmdmthname{cmdName}[NEWNAME];
                         \colon {\tt CmdNameName[sub][sub][ext]} = \mathcal{NEWNAME}^{sub}_{sub}ext
                    482 \newcommandx{\cmdmthname}[2][2=]
                    483 {\usrmth{#1}{Name}{name}[#2]}
```

```
\cmdmthargname ... to do!
                                              • \cmdmthargname{CMDNAME};
                                                  \CMDNAMEName[sub][sub][ext1]{arg}[ext2] = \mathcal{CMDNAME}_{sub}^{sub}ext1(arg)ext2
                                              • \cmdmthargname{cmdName}[NEWNAME];
                                                  \cmdNameName[sub][sub][ext1]{arg}[ext2] = \mathcal{NEWNAME}_{sub}^{sub}ext1(arg)ext2
                                        484 \newcommandx{\cmdmthargname}[2][2=]
                                                  {\usrmth{#1}{Name}{argname}[#2]}
\cmdmthoargname ... to do!
                                              • \cmdmthoargname{CMDNAME};
                                                  \verb|\CMDNAMEName[sub][sub][arg]| = \mathcal{CMDNAME}_{sub}^{sub}(arg)
                                              • \cmdmthoargname{cmdName}[NEWNAME];
                                                  \colon {\tt cmdNameName[sub][sub][arg]} = \mathcal{NEWNAME}^{sub}_{sub}(arg)
                                        486 \newcommandx{\cmdmthoargname}[2][2=]
                                                  {\usrmth{#1}{Name}{oargname}[#2]}
  \cmdmthparname ... to do!
                                              • \cmdmthparname{CMDNAME};
                                                  \CMDNAMEName[sub][sub][ext1]{par}[ext2] = \mathcal{CMDNAME}_{sub}^{sub}ext1[par]ext2
                                              • \cmdmthparname{cmdName}[NEWNAME];
                                                  \cmdNameName[sub][sub][ext1]{par}[ext2] = \mathcal{NEWNAME}_{sub}^{sub}ext1[par]ext2
                                        488 \newcommandx{\cmdmthparname}[2][2=]
                                                 {\usrmth{#1}{Name}{parname}[#2]}
\cmdmthoparname ... to do!
                                              • \cmdmthoparname{CMDNAME};
                                                  \verb|\CMDNAMEName[sub][sub][par]| = \mathcal{CMDNAME}_{sub}^{sub}[par]
                                              • \cmdmthoparname{cmdName}[NEWNAME];
                                                  \verb|\cmdNameName[sub][sub][par]| = \mathcal{NEWNAME}_{sub}^{sub}[par]
                                        490 \newcommandx{\cmdmthoparname}[2][2=]
                                                  {\usrmth{#1}{Name}{oparname}[#2]}
      \mthfam, ... to do!
                                              \bullet \  \, \texttt{\bar{NAME}[sub][sub][Ext1]{Arg}[Ext2]} = \mathcal{NAME}^{sup}_{sub}Ext1(Arg)Ext2
                                              \bullet \  \, \texttt{\bark}[Sub][Sub][Ext1]{Par}[Ext2] = \mathcal{N} \, \mathcal{M} \, \mathcal{E}^{sup}_{sub} Ext1[Par]Ext2]
                                        492 %% Style for Families
                                        493 \cmdmthall{fam}\newcommand{\mthstyfam}{\mathscr}
           \AFam, ... to do!
                                      \mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}, \mathcal{E}, \mathcal{F}, \mathcal{G}, \mathcal{H}, \mathcal{I}, \mathcal{I}, \mathcal{H}, \mathcal{L}, \mathcal{M}, \mathcal{N}, \mathcal{O}, \mathcal{P}, \mathcal{Q}, \mathcal{R}, \mathcal{F}, \mathcal{T}, \mathcal{U}, \mathcal{V}, \mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Y}
                                        494 \seqoflatupp{Fam}{mthfam}
           \cmdmthfam ... to do!
                                              \cmdmthfam{CMDNAME};
                                                  \CMDNAMEFam[sub][sub][ext] = \mathscr{CMDNAMEF}am[sub]\mathscr{C}_{sub}ext
                                              • \cmdmthfam{cmdName}[NEWNAME];
                                                  \cmdNameFam[sub][sub][ext] = \mathcal{NEWNAME}_{sub}^{sub}ext
                                        495 \newcommandx{\cmdmthfam}[2][2=]
                                                {\usrmth{#1}{Fam}{fam}[#2]}
    \cmdmthargfam ... to do!
                                              • \cmdmthargfam{CMDNAME};
                                                  \verb|\CMDNAMEFam[sub][sub][ext1]{arg}[ext2] = \mathscr{CMDNAMEFam}[sub][sub][ext1]{arg}[ext2] = \mathscr{CMDNAMEFam}[sub][sub][ext1][ext2] = \mathscr{CMDNAMEFam}[sub][ext2][ext2] = \mathscr{CMDNAMEFam}[sub][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ex
                                              • \cmdmthargfam{cmdName}[NEWNAME];
                                                  \verb|\cmdNameFam[sub][sub][ext1]{arg}[ext2] = \mathscr{NEWNAME}^{sub}_{sub}ext1(arg)ext2
```

```
497 \newcommandx{\cmdmthargfam}[2][2=]
                                                  {\usrmth{#1}{Fam}{argfam}[#2]}
\cmdmthoargfam ... to do!
                                              \cmdmthoargfam{CMDNAME};
                                                  \CMDNAMEFam[sub][sub][arg] = \mathscr{CMDNAMEFam}[sub](arg)
                                              \cmdmthoargfam{cmdFam} [NEWNAME];
                                                  \verb|\cmdFamFam[sub][sub][arg]| = \mathscr{NEWNAME}^{sub}_{sub}(arg)
                                        499 \newcommandx{\cmdmthoargfam}[2][2=]
                                                 {\usrmth{#1}{Fam}{oargfam}[#2]}
  \cmdmthparfam ... to do!
                                              • \cmdmthparfam{CMDNAME};
                                                  \verb|\CMDNAMEFam[sub][sub][ext1]{par}[ext2] = \mathscr{CMDNAMEFam}[sub][sub][ext1][par]ext2
                                              • \cmdmthparfam{cmdName}[NEWNAME];
                                                  \cmdNameFam[sub][sub][ext1]{par}[ext2] = \mathcal{NEWNAME}_{sub}^{sub}ext1[par]ext2
                                         501 \newcommandx{\cmdmthparfam}[2][2=]
                                                 {\usrmth{#1}{Fam}{parfam}[#2]}
\cmdmthoparfam ... to do!
                                              • \cmdmthoparfam{CMDNAME};
                                                   \CMDNAMEFam[sub][sub][par] = \mathscr{EMDNAME}_{sub}^{sub}[par]
                                              \cmdmthoparfam{cmdFam}[NEWNAME];
                                                  \label{eq:cmdFamFam} $$ \operatorname{Sub}[\operatorname{sub}][\operatorname{par}] = \mathcal{NEWNAME}^{sub}[\operatorname{par}] $$
                                        503 \newcommandx{\cmdmthoparfam}[2][2=]
                                                  {\usrmth{#1}{Fam}{oparfam}[#2]}
    \mthcls, ... to do!
                                              • \mthcls{NAME}[sub][sup][Ext] = \mathcal{NAME}_{sub}^{sup}Ext
                                              • \mthargcls{NAME}[sub][sup][Ext1]{Arg}[Ext2] = \mathcal{NAME}_{sub}^{sup}Ext1(Arg)Ext2
                                              \bullet \ \texttt{\ \ } \texttt{[Sub] [sup] [Ext1] \{Par\} [Ext2]} = \mathcal{NAME} sub^{sup}_{sub} Ext1[Par] Ext2]
                                         505 %% Style for Classes
                                        506 \cmdmthall{cls}\newcommand{\mthstycls}{\matheus}
         \ACls, ... to do!
                                     \mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}, \mathcal{E}, \mathcal{F}, \mathcal{G}, \mathcal{H}, \mathcal{I}, \mathcal{J}, \mathcal{K}, \mathcal{L}, \mathcal{M}, \mathcal{N}, \mathcal{O}, \mathcal{P}, \mathcal{Q}, \mathcal{R}, \mathcal{S}, \mathcal{T}, \mathcal{U}, \mathcal{V}, \mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Z}
                                        507 \seqoflatupp{Cls}{mthcls}
         \cmdmthcls ... to do!
                                              • \cmdmthcls{CMDNAME};
                                                   \CMDNAMECls[sub][sub][ext] = \mathbb{CMDNAME}_{sub}^{sub}ext
                                              • \cmdmthcls{cmdName}[NEWNAME];
                                                  \cmdNameCls[sub][sub][ext] = NEWNAME_{sub}^{sub}ext
                                         508 \newcommandx{\cmdmthcls}[2][2=]
                                                 {\usrmth{#1}{Cls}{cls}[#2]}
  \cmdmthargcls ... to do!
                                              • \cmdmthargcls{CMDNAME};
                                                   \CMDNAMECls[sub][sub][ext1]{arg}[ext2] = \mathbb{CMDNAME}_{sub}^{sub}ext1(arg)ext2
                                              • \cmdmthargcls{cmdName}[NEWNAME];
                                                  \verb|\cmdNameCls[sub][sub][ext1]{arg}[ext2] = \verb|\cmdNameCls[sub][sub][ext1]{arg}[ext2] = \verb|\cmdNameCls[sub][sub][ext1]{arg}[ext2] = \verb|\cmdNameCls[sub][sub][ext1][ext2] = \verb|\cmdNameCls[sub][sub][ext1][ext2] = \verb|\cmdNameCls[sub][sub][ext1][ext2] = \verb|\cmdNameCls[sub][sub][ext1][ext2] = \verb|\cmdNameCls[sub][sub][ext2][ext2] = \verb|\cmdNameCls[sub][ext2][ext2][ext2][ext2][ext2] = \verb|\cmdNameCls[sub][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2][ext2]
                                         510 \newcommandx{\cmdmthargcls}[2][2=]
                                                  {\usrmth{#1}{Cls}{argcls}[#2]}
\cmdmthoargcls ... to do!
                                              • \cmdmthoargcls{CMDNAME};
```

\CMDNAMECls[sub][sub][arg] = $\mathcal{CMDNAME}_{sub}^{sub}(arg)$

```
\cmdmthoargcls{cmdCls}[NEWNAME];
                                                 \cmdClsCls[sub] [sub] [arg] = \mathcal{NEWNAME}_{sub}^{sub}(arg)
                                       512 \newcommandx{\cmdmthoargcls}[2][2=]
                                                {\usrmth{#1}{Cls}{oargcls}[#2]}
  \cmdmthparcls ... to do!
                                             \cmdmthparcls{CMDNAME};
                                                 \verb|\CMDNAMECls[sub][sub][ext1]{par}[ext2] = \verb|\CMDNAME| subsect 1 | par| ext2|
                                             • \cmdmthparcls{cmdName}[NEWNAME];
                                                 \verb|\cmdNameCls[sub][sub][ext1]{par}[ext2] = NEWNAME_{sub}^{sub}ext1[par]ext2
                                       514 \newcommandx{\cmdmthparcls}[2][2=]
                                                {\usrmth{#1}{Cls}{parcls}[#2]}
\cmdmthoparcls ... to do!
                                             • \cmdmthoparcls{CMDNAME};
                                                 \verb|\CMDNAMECls[sub][sub][par]| = \verb|\CMDNAME| sub| sub| par|
                                             \cmdmthoparcls{cmdCls}[NEWNAME];
                                                 \cmdClsCls[sub][sub][par] = NEWNAME_{sub}^{sub}[par]
                                       516 \newcommandx{\cmdmthoparcls}[2][2=]
                                       517 {\usrmth{#1}{Cls}{oparcls}[#2]}
    \mthsig, ... to do!
                                            • \mthsig{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                                             • \mthargsig{Name} [sub] [sup] [Ext1] {Arg} [Ext2] = Name_{sub}^{sup} Ext1(Arg)Ext2
                                             • \mathbb{E}_{sub}[Sub][Sub][Sub][Ext1][Par][Ext2] = \mathcal{N}_{ame_{sub}}[Ext1][Par][Ext2]
                                       518 %% Style for Signatures
                                       519 \cmdmthall{sig}\newcommand{\mthstysig}{\mathpzc}
         \aSig, ... to do!
                                     a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, \chi, y, z
                                     \mathcal{A},~\mathcal{B},~\mathcal{C},~\mathcal{D},~\mathcal{E},~\mathcal{F},~\mathcal{G},~\mathcal{H},~I,~\mathcal{I},~\mathcal{K},~\mathcal{L},~\mathcal{M},~\mathcal{N},~\mathcal{O},~\mathcal{P},~Q,~\mathcal{R},~\mathcal{S},~\mathcal{T},~\mathcal{U},~\mathcal{V},~\mathcal{W},~X,~\mathcal{Y},~Z
                                     \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                       520 \seqoflatlet{Sig}{mthsig}\seqofgrklow{Sig}{mthsig}
         \cmdmthsig ... to do!
                                             • \cmdmthsig{cmdName};
                                                 \colon dNameSig[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                             • \cmdmthsig{cmdName}[NewName];
                                                 \verb|\cmdNameSig[sub][sub][ext]| = \textit{NewName}^{sub}_{sub}\!ext
                                       521 \newcommandx{\cmdmthsig}[2][2=]
                                       522 {\usrmth{#1}{Sig}{sig}[#2]}
  \cmdmthargsig ... to do!
                                             • \cmdmthargsig{cmdName};
                                                 \cmdNameSig[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                             • \cmdmthargsig{cmdName}[NewName];
                                                 \cmdNameSig[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                       523 \newcommandx{\cmdmthargsig}[2][2=]
                                       524 {\usrmth{#1}{Sig}{argsig}[#2]}
\cmdmthoargsig ... to do!
                                             • \cmdmthoargsig{cmdName};
                                                 \colon 
                                             • \cmdmthoargsig{cmdSig}[NewName];
                                                 \colored{cmdSigSig[sub][sub][arg]} = \mathcal{N}ew\mathcal{N}ame_{sub}^{sub}(arg)
                                       525 \newcommandx{\cmdmthoargsig}[2][2=]
                                       526 {\usrmth{#1}{Sig}{oargsig}[#2]}
```

```
\cmdmthparsig ... to do!
                                                                                            • \cmdmthparsig{cmdName};
                                                                                                     \verb|\cmdNameSig[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                                                                                             • \cmdmthparsig{cmdName}[NewName];
                                                                                                    \verb|\cmdNameSig[sub][sub][ext1]{par}[ext2] = \textit{NewName}^{sub}_{sub}ext1[par]ext2
                                                                                 527 \newcommandx{\cmdmthparsig}[2][2=]
                                                                                                    {\usrmth{#1}{Sig}{parsig}[#2]}
\cmdmthoparsig ... to do!
                                                                                            • \cmdmthoparsig{cmdName};
                                                                                                    \verb|\cmdNameSig[sub][sub][par]| = cmdName_{sub}^{sub}[par]|
                                                                                             • \cmdmthoparsig{cmdSig}[NewName];
                                                                                                    \color{local} 
                                                                                 529 \newcommandx{\cmdmthoparsig}[2][2=]
                                                                                                    {\usrmth{#1}{Sig}{oparsig}[#2]}
         \mthstr, ... to do!
                                                                                            • \mthstr{Name}[sub][sup][Ext] = \mathfrak{Name}_{sub}^{sup}Ext
                                                                                            • \mathbb{E}[Sub][Sub][Sub][Ext1][Arg][Ext2] = \mathfrak{Mame}_{sub}^{sup}Ext1(Arg)Ext2
                                                                                             • \mthparstr{Name} [sub] [sup] [Ext1] {Par} [Ext2] = \mathfrak{Name}_{sub}^{sup} Ext1[Par]Ext2
                                                                                531 %% Style for Structures
                                                                                532 \mbox{ \mbox{$\sim$}} \mbox{\mbox{$\sim$}} \mbox
                   \aStr, ... to do!
                                                                            \mathfrak{a}, \mathfrak{b}, \mathfrak{c}, \mathfrak{d}, \mathfrak{e}, \mathfrak{f}, \mathfrak{g}, \mathfrak{h}, \mathfrak{i}, \mathfrak{j}, \mathfrak{k}, \mathfrak{l}, \mathfrak{m}, \mathfrak{n}, \mathfrak{o}, \mathfrak{p}, \mathfrak{q}, \mathfrak{r}, \mathfrak{s}, \mathfrak{t}, \mathfrak{u}, \mathfrak{v}, \mathfrak{w}, \mathfrak{r}, \mathfrak{h}, \mathfrak{z}
                                                                             \mathfrak{A}, \mathfrak{B}, \mathfrak{C}, \mathfrak{D}, \mathfrak{E}, \mathfrak{F}, \mathfrak{G}, \mathfrak{H}, \mathfrak{I}, \mathfrak{I}, \mathfrak{K}, \mathfrak{L}, \mathfrak{M}, \mathfrak{N}, \mathfrak{D}, \mathfrak{P}, \mathfrak{Q}, \mathfrak{R}, \mathfrak{S}, \mathfrak{T}, \mathfrak{U}, \mathfrak{W}, \mathfrak{X}, \mathfrak{Y}, \mathfrak{Z}
                                                                             \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, \mathfrak{o}, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                                                                533 \seqoflatlet{Str}{mthstr}\seqofgrklow{Str}{mthstr}
                   \cmdmthstr ... to do!
                                                                                             \cmdmthstr{cmdName};
                                                                                                    \verb|\cmdNameStr[sub][sub][ext]| = \mathfrak{cmdMame}_{sub}^{sub}\!ext
                                                                                             • \cmdmthstr{cmdName} [NewName];
                                                                                                    \cmdNameStr[sub][sub][ext] = \mathfrak{NewName}_{sub}^{sub}ext
                                                                                 534 \newcommandx{\cmdmthstr}[2][2=]
                                                                                535 {\usrmth{#1}{Str}{str}[#2]}
    \cmdmthargstr ... to do!
                                                                                             \cmdmthargstr{cmdName};
                                                                                                    \cmdNameStr[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                                                                             • \cmdmthargstr{cmdName}[NewName];
                                                                                                    \cmdNameStr[sub][sub][ext1]{arg}[ext2] = \mathfrak{NewName}_{sub}^{sub}ext1(arg)ext2
                                                                                536 \newcommandx{\cmdmthargstr}[2][2=]
                                                                                                  {\usrmth{#1}{Str}{argstr}[#2]}
\cmdmthoargstr ... to do!
                                                                                            • \cmdmthoargstr{cmdName};
                                                                                                     \cmdNameStr[sub][sub][arg] = cmdMamesub(arg)
                                                                                             • \cmdmthoargstr{cmdStr}[NewName];
                                                                                                    \colored \
                                                                                 538 \newcommandx{\cmdmthoargstr}[2][2=]
                                                                                                    {\usrmth{#1}{Str}{oargstr}[#2]}
    \cmdmthparstr ... to do!
                                                                                            • \cmdmthparstr{cmdName};
                                                                                                    \verb|\cmdNameStr[sub][sub][ext1]{par}[ext2] = \verb|\cmdMamestr[sub]| ext1||par||ext2||
```

```
• \cmdmthparstr{cmdName} [NewName];
                           \verb|\cmdNameStr[sub][sub][ext1][par][ext2] = \mathfrak{NewName}_{sub}^{sub}\!ext1[par]ext2
                     540 \mbox{ } \mbox{cmdmthparstr}[2][2=]
                           {\usrmth{#1}{Str}{parstr}[#2]}
\cmdmthoparstr ... to do!
                        • \cmdmthoparstr{cmdName};
                           \verb|\cmdNameStr[sub][sub][par]| = \mathfrak{cmdName}_{sub}^{sub}[par]|
                        • \cmdmthoparstr{cmdStr}[NewName];
                           \c dStrStr[sub][sub][par] = \mathfrak{NewName}_{sub}^{sub}[par]
                     542 \newcommandx{\cmdmthoparstr}[2][2=]
                          {\usrmth{#1}{Str}{oparstr}[#2]}
  \mthset, ... to do!
                        • \mthset{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                        • \mthargset{Name}[sub][sup][Ext1]{Arg}[Ext2] = Name_{sub}^{sup}Ext1(Arg)Ext2
                        • \mathbb{E}_{sub}[Sub][Sub][Ext1][Par][Ext2] = Name_{sub}^{sup}Ext1[Par]Ext2
                     544 %% Style for Sets
                     545 \mbox{ \mbox{mthall{set}}\newcommand{\mbox{mthstyset}{\mbox{mathrm}}}
     \aSet, ... to do!
                    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
                    \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,o,\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                    A,\,B,\,\Gamma,\,\Delta,\,E,\,E,\,Z,\,H,\,\Theta,\,\varTheta,\,I,\,K,\,K,\,\Lambda,\,M,\,N,\,\Xi,\,O,\,\Pi,\,\varPi,\,P,\,P,\,\Sigma,\,\varSigma,\,T,\,\Upsilon,\,\Phi,\,\varPhi,\,X,\,\Psi,\,\Omega
                     546 \seqoflet{Set}{mthset}
     \cmdmthset ... to do!
                        • \cmdmthset{cmdName};
                           \colon dNameSet[sub][sub][ext] = cmdName_{sub}^{sub}ext
                         • \cmdmthset{cmdName}[NewName];
                           \verb|\cmdNameSet[sub][sub][ext]| = NewName_{sub}^{sub} ext|
                     547 \newcommandx{\cmdmthset}[2][2=]
                     548 {\usrmth{#1}{Set}{set}[#2]}
 \cmdmthargset ... to do!
                        • \cmdmthargset{cmdName};
                           \cmdNameSet[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                         • \cmdmthargset{cmdName}[NewName];
                           \colon = NewNameSet[sub][sub][ext1]{arg}[ext2] = NewNameSubext1(arg)ext2
                     549 \newcommandx{\cmdmthargset}[2][2=]
                           {\usrmth{#1}{Set}{argset}[#2]}
\cmdmthoargset ... to do!
                        • \cmdmthoargset{cmdName};
                           \colon dNameSet[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                         • \cmdmthoargset{cmdSet}[NewName];
                           \colon dSetSet[sub][sub][arg] = NewName_{sub}^{sub}(arg)
                     551 \newcommandx{\cmdmthoargset}[2][2=]
                     552 {\usrmth{#1}{Set}{oargset}[#2]}
 \cmdmthparset ... to do!
                        • \cmdmthparset{cmdName};
                           \verb|\cmdNameSet[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                         • \cmdmthparset{cmdName}[NewName];
                           \verb|\cmdNameSet[sub][sub][ext1][par][ext2]| = NewName_{sub}^{sub}ext1[par]ext2|
                     553 \newcommandx{\cmdmthparset}[2][2=]
                     554 {\usrmth{#1}{Set}{parset}[#2]}
```

```
\cmdmthoparset ... to do!
                        \cmdmthoparset{cmdName};
                          \colon dNameSet[sub][sub][par] = cmdName_{sub}^{sub}[par]
                        • \cmdmthoparset{cmdSet}[NewName];
                          \colon dSetSet[sub][sub][par] = NewName_{sub}^{sub}[par]
                     555 \newcommandx{\cmdmthoparset}[2][2=]
                          {\usrmth{#1}{Set}{oparset}[#2]}
 \cmdmthsetext ... to do!
                    557 \newcommandx{\cmdmthsetext}[3][2=, 3=]
                    558 {\cmdmthset{#1}[#2]\caselower[q]{#1}%
                          \usrmthlet{\thestring}{Sym}{sym}
                            [\defval{#3}{\defval{\empchk{#2}{\lowercase{#2}}}}{\thestring}}]%
                         \usrmthlet{\thestring}{Elm}{elm}
                    562
                              [\defval{#3}{\defval{\mpchk{#2}}}] 
  \mthrel, ... to do!
                       • \mthrel{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                       \bullet \  \, \texttt{\bary [Sub] [Sub] [Sub] [Ext1] \{Arg\} [Ext2]} = Name_{sub}^{sup} Ext1(Arg) Ext2
                        • \mthparrel{Name}[sub][sup][Ext1]{Par}[Ext2] = Name_{sub}^{sup}Ext1[Par]Ext2
                    563 %% Style for Relations
                    564 \mbox{ \label{rel}\newcommand{\mbstyrel}{\mathbb{}}}
    \aRel, ... to do!
                   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, L, T, U, V, W, X, Y, Z
                   \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,o,\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                   A,\,B,\,\Gamma,\,\Delta,\,E,\,E,\,Z,\,H,\,\Theta,\,\Theta,\,I,\,K,\,K,\,\Lambda,\,M,\,N,\,\Xi,\,O,\,\Pi,\,\Pi,\,P,\,P,\,\varSigma,\,\Sigma,\,T,\,\Upsilon,\,\varPhi,\,\varPhi,\,X,\,\Psi,\,\Omega
                    565 \seqoflet{Rel}{mthrel}
    \cmdmthrel ... to do!
                       \cmdmthrel{cmdName};
                          \verb|\cmdNameRel[sub][sub][ext]| = cmdName_{sub}^{sub}ext|
                        • \cmdmthrel{cmdName}[NewName];
                          \verb|\cmdNameRel[sub][sub][ext]| = NewName_{sub}^{sub}\!ext|
                    566 \newcommandx{\cmdmthrel}[2][2=]
                    567 {\usrmth{#1}{Rel}{rel}[#2]}
 \verb|\cmdmthargrel| ... to do!
                        \cmdmthargrel{cmdName};
                          \verb|\cmdNameRel[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                        • \cmdmthargrel{cmdName}[NewName];
                          \cmdNameRel[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                    568 \newcommandx{\cmdmthargrel}[2][2=]
                    569 {\usrmth{#1}{Rel}{argrel}[#2]}
\cmdmthoargrel ... to do!
                        \cmdmthoargrel{cmdName};
                          \cmdNameRel[sub][sub] [arg] = cmdName_{sub}^{sub}(arg)
                       • \cmdmthoargrel{cmdRel}[NewName];
                          \cmdRelRel[sub] [sub] [arg] = NewName_{sub}^{sub}(arg)
                     570 \newcommandx{\cmdmthoargrel}[2][2=]
                    571 {\usrmth{#1}{Rel}{oargrel}[#2]}
 \cmdmthparrel ... to do!
                        \cmdmthparrel{cmdName};
                          \verb|\cmdNameRel[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2
```

```
• \cmdmthparrel{cmdName}[NewName];
                                                  \verb|\cmdNameRel[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}\!ext1[par]ext2
                                        572 \newcommandx{\cmdmthparrel}[2][2=]
                                                 {\usrmth{#1}{Rel}{parrel}[#2]}
\cmdmthoparrel ... to do!
                                             • \cmdmthoparrel{cmdName};
                                                 \verb|\cmdNameRel[sub][sub][par]| = cmdName_{sub}^{sub}[par]|
                                             • \cmdmthoparrel{cmdRel}[NewName];
                                                 \colone{localize} \colone{lo
                                        574 \newcommandx{\cmdmthoparrel}[2][2=]
                                                 {\usrmth{#1}{Rel}{oparrel}[#2]}
    \mthfun, ... to do!
                                             • \mathbb{N} [sub] [sup] [Ext] = \mathbb{N} = \mathbb{N}
                                             \bullet \  \, \texttt{\bar{Name}[sub][sub][Ext1][Arg][Ext2]} = \mathsf{\bar{Name}}^{sup}_{sub} Ext1(Arg) Ext2
                                             • \mathbb{E}_{sub}[Sub][Sub][Sub][Ext1][Par][Ext2] = \mathbb{E}_{sub}[Ext1][Par][Ext2]
                                        576 %% Style for Functions
                                        577 \mbox{ \mbox{maths1}{fun}\newcommand{\mbox{mthstyfun}{\mbox{mathsf}}}
         \aFun, ... to do!
                                     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
                                      \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,\mathsf{o},\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                                      \mathsf{A},\,\mathsf{B},\,\mathsf{\Gamma},\,\mathsf{\Delta},\,\mathsf{E},\,\mathsf{E},\,\mathsf{Z},\,\mathsf{H},\,\Theta,\,\varTheta,\,\mathsf{I},\,\mathsf{K},\,\mathsf{K},\,\mathsf{K},\,\mathsf{\Lambda},\,\mathsf{M},\,\mathsf{N},\,\Xi,\,\mathsf{O},\,\mathsf{\Pi},\,\varPi,\,\mathsf{P},\,\mathsf{P},\,\mathsf{\Sigma},\,\varSigma,\,\mathsf{T},\,\Upsilon,\,\Phi,\,\varPhi,\,\mathsf{X},\,\Psi,\,\Omega
                                       578 \seqoflet{Fun}{mthfun}
         \cmdmthfun ... to do!
                                             • \cmdmthfun{cmdName};
                                                 \verb|\cmdNameFun[sub][sub][ext]| = \verb|\cmdName|^{sub}_{sub}\!ext|
                                              • \cmdmthfun{cmdName}[NewName];
                                                 \colon {\tt CmdNameFun[sub][sub][ext] = NewName}^{sub}_{sub}ext
                                        579 \newcommandx{\cmdmthfun}[2][2=]
                                                {\usrmth{#1}{Fun}{fun}[#2]}
  \cmdmthargfun ... to do!
                                              • \cmdmthargfun{cmdName};
                                                 \cmdNameFun[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                              • \cmdmthargfun{cmdName}[NewName];
                                                  \cmdNameFun[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                        581 \newcommandx{\cmdmthargfun}[2][2=]
                                                 {\usrmth{#1}{Fun}{argfun}[#2]}
\cmdmthoargfun ... to do!
                                             • \cmdmthoargfun{cmdName};
                                                 \cmdNameFun[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                                              • \cmdmthoargfun{cmdFun} [NewName];
                                                 \cmdFunFun[sub][sub][arg] = NewName_{sub}^{sub}(arg)
                                        583 \newcommandx{\cmdmthoargfun}[2][2=]
                                       584 {\usrmth{#1}{Fun}{oargfun}[#2]}
  \cmdmthparfun ... to do!
                                             • \cmdmthparfun{cmdName};
                                                 \verb|\cmdNameFun[sub][sub][ext1]{par}[ext2] = \verb|\cmdName|^{sub}_{sub} ext1[par]ext2|
                                              • \cmdmthparfun{cmdName}[NewName];
                                                 585 \newcommandx{\cmdmthparfun}[2][2=]
                                                {\usrmth{#1}{Fun}{parfun}[#2]}
```

```
\cmdmthoparfun ... to do!
                                              • \cmdmthoparfun{cmdName};
                                                  \cmdNameFun[sub][sub][par] = cmdName_{sub}^{sub}[par]
                                              • \cmdmthoparfun{cmdFun} [NewName];
                                                  \verb|\cmdFunFun[sub][sub][par]| = \verb|\NewName|_{sub}^{sub}[par]|
                                        587 \newcommandx{\cmdmthoparfun}[2][2=]
                                                  {\usrmth{#1}{Fun}{oparfun}[#2]}
    \mthsym, ... to do!
                                              • \mathbb{S}_{sub}[Sub][Sup][Ext] = \mathbb{S}_{sub}Ext
                                              • \mathbb{E}_{sub}[Sub][Sub][Sub][Ext1] = \mathbb{E}_{sub}[Ext2] = \mathbb{E}_{sub}[Ext1] = \mathbb{E}_{sub}[Ext2]
                                              • \mathbb{E}_{sup}[Sub][Sup][Ext1][Par][Ext2] = \mathbb{E}_{sup}[Ext1][Par][Ext2]
                                        589 %% Style for Symbols
                                        590 \mbox{\mbox{\mbox{$\sim$}}{\mathbf{\mbox{\mbox{$\sim$}}}}{\mathbf{\mbox{\mbox{$\sim$}}}}{\mathbf{\mbox{\mbox{$\sim$}}}}{\mathbf{\mbox{$\sim$}}}{\mathbf{\mbox{$\sim$}}}
         \aggreen \
                                      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
                                      \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                      A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, P, P, \Sigma, \Sigma, T, T, \Phi, \Phi, X, \Psi, \Omega
                                       591 \seqoflet{Sym}{mthsym}
         \cmdmthsym ... to do!
                                              \cmdmthsym{cmdName};
                                                  \verb|\cmdNameSym[sub][sub][ext]| = \verb|\cmdNames| sub| ext|
                                              • \cmdmthsym{cmdName}[NewName];
                                                  \verb|\cmdNameSym[sub][sub][ext]| = \verb|\NewName|_{sub}^{sub} ext|
                                        592 \newcommandx{\cmdmthsym}[2][2=]
                                       593 {\usrmth{#1}{Sym}{sym}[#2]}
  \cmdmthargsym ... to do!
                                              \cmdmthargsym{cmdName};
                                                  \verb|\cmdNameSym[sub][sub][ext1]{arg}[ext2] = \verb|\cmdName|| sub| ext1(arg)ext2|
                                              • \cmdmthargsym{cmdName}[NewName];
                                                  \cmdNameSym[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                        594 \newcommandx{\cmdmthargsym}[2][2=]
                                        595 {\usrmth{#1}{Sym}{argsym}[#2]}
\cmdmthoargsym ... to do!
                                              \cmdmthoargsym{cmdName};
                                                  \cmbox{cmdNameSym[sub][sub][arg]} = \ccmdName_{sub}^{sub}(arg)
                                              • \cmdmthoargsym{cmdSym}[NewName];
                                                  \colon dSymSym[sub][sub][arg] = NewName_{sub}^{sub}(arg)
                                        596 \newcommandx{\cmdmthoargsym}[2][2=]
                                                {\usrmth{#1}{Sym}{oargsym}[#2]}
  \cmdmthparsym ... to do!
                                              \cmdmthparsym{cmdName};
                                                   \c MameSym[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2
                                              • \cmdmthparsym{cmdName}[NewName];
                                                  \verb|\cmdNameSym[sub][sub][ext1]{par}[ext2] = \verb|\NewName|^{sub}_{sub}ext1[par]ext2|
                                        598 \newcommandx{\cmdmthparsym}[2][2=]
                                                    {\usrmth{#1}{Sym}{parsym}[#2]}
\cmdmthoparsym ... to do!
                                              \cmdmthoparsym{cmdName};
                                                  \c MameSym[sub][sub][par] = cmdName_{sub}^{sub}[par]
```

```
\cmdmthoparsym{cmdSym}[NewName];
                          \cmdSymSym[sub][sub][par] = NewName_{sub}^{sub}[par]
                     600 \newcommandx{\cmdmthoparsym}[2][2=]
                          {\usrmth{#1}{Sym}{oparsym}[#2]}
  \mthelm, ... to do!
                        • \mthelm{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
                         \bullet \verb| \t targelm{Name}[sub][sup][Ext1]{Arg}[Ext2] = Name_{sub}^{sup}Ext1(Arg)Ext2 
                        • \mathbb{E}[Sub][Sub][Sub][Ext1][Par][Ext2] = Name_{sub}^{sup}Ext1[Par]Ext2
                     602 %% Style for Elements
                     603 \mbox{ \cmdmthall{elm}\newcommand{\mbox{\mbox{mthstyelm}}{\mbox{\mbox{\cmdmthall}}}}
     \all lm, ... to do!
                    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
                    \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                    A,\,B,\,\Gamma,\,\Delta,\,E,\,E,\,Z,\,H,\,\Theta,\,\Theta,\,I,\,K,\,K,\,\Lambda,\,M,\,N,\,\Xi,\,O,\,\Pi,\,\Pi,\,P,\,P,\,\Sigma,\,\Sigma,\,T,\,\Upsilon,\,\Phi,\,\Phi,\,X,\,\Psi,\,\Omega
                     604 \seqoflet{Elm}{mthelm}
     \cmdmthelm ... to do!
                        \cmdmthelm{cmdName};
                          \verb|\cmdNameElm[sub][sub][ext]| = cmdName_{sub}^{sub}\!ext
                        • \cmdmthelm{cmdName}[NewName];
                          \verb|\cmdNameElm[sub][sub][ext]| = NewName_{sub}^{sub} ext|
                     605 \newcommandx{\cmdmthelm}[2][2=]
                     606 {\usrmth{#1}{Elm}{elm}[#2]}
 \cmdmthargelm ... to do!
                        • \cmdmthargelm{cmdName};
                          \cmdNameElm[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                        • \cmdmthargelm{cmdName}[NewName];
                          \verb|\cmdNameElm[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                     607 \newcommandx{\cmdmthargelm}[2][2=]
                         {\usrmth{#1}{Elm}{argelm}[#2]}
\cmdmthoargelm ... to do!
                        • \cmdmthoargelm{cmdName};
                          \colon = cmdNameElm[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                        • \cmdmthoargelm{cmdElm}[NewName];
                          \colone{line} [sub] [sub] [arg] = NewName_{sub}^{sub} (arg)
                     609 \newcommandx{\cmdmthoargelm}[2][2=]
                          {\usrmth{#1}{Elm}{oargelm}[#2]}
 \cmdmthparelm ... to do!
                        • \cmdmthparelm{cmdName};
                          \cmdNameElm[sub] [sub] [ext1] {par} [ext2] = cmdName_{sub}^{sub}ext1[par]ext2
                        • \cmdmthparelm{cmdName}[NewName];
                          \verb|\cmdNameElm[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}ext1[par]ext2
                     611 \newcommandx{\cmdmthparelm}[2][2=]
                     612 {\usrmth{#1}{Elm}{parelm}[#2]}
\cmdmthoparelm ... to do!
                        • \cmdmthoparelm{cmdName};
                          \verb|\cmdNameElm[sub][sub][par]| = cmdName_{sub}^{sub}[par]|
                        • \cmdmthoparelm{cmdElm}[NewName];
                          \colonerge{cmdElmElm[sub][sub][par]} = NewName_{sub}^{sub}[par]
                     613 \newcommandx{\cmdmthoparelm}[2][2=]
                     614 {\usrmth{#1}{Elm}{oparelm}[#2]}
```

```
\cmdmthsymelm ... to do!
                                                                                         \cmdmthsymelm{cmdName};
                                                                                                 \colon dNameSym[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                                                                                 \colonerge{cmdNameElm[sub][sub][ext]} = cmdName^{sub}_{sub}ext
                                                                                         • \cmdmthsymelm{cmdName}[NewName];
                                                                                                 \cmdNameSym[sub][sub][ext] = NewName_{sub}^{sub}ext
                                                                                                 \cmdNameElm[sub][sub][ext] = NewName_{sub}^{sub}ext
                                                                               616 \newcommandx{\cmdmthsymelm}[2][2=]
                                                                                                    {\cmdmthsym{#1}[#2]%
                                                                               618
                                                                                                    \cmdmthelm{#1}[#2]}
   \cmdmthargsymelm ... to do!
                                                                                         • \cmdmthargsymelm{cmdName};
                                                                                                 \verb|\cmdNameElm[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                                                                         • \cmdmthargsymelm{cmdName}[NewName];
                                                                                                 \verb|\cmdNameSym[sub][sub][ext1]{arg}[ext2] = \verb|\cmdNamesub| ext1(arg)ext2|
                                                                                                 \verb|\cmdNameElm[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                                                                                619 \newcommandx{\cmdmthargsymelm}[2][2=]
                                                                                                    {\cmdmthargsym{#1}[#2]%
                                                                                                    \cmdmthargelm{#1}[#2]}
                                                                               621
\c cmdmthoargsymelm ... to do!
                                                                                         \cmdmthoargsymelm{cmdName};
                                                                                                 \verb|\cmdNameSym[sub][sub][arg]| = \verb|\cmdNames|^{sub}_{sub}(arg)
                                                                                                 \colonerge{cmdNameElm[sub][sub][arg]} = cmdName^{sub}_{sub}(arg)
                                                                                         • \cmdmthoargsymelm{cmdName}[NewName];
                                                                                                 \verb|\cmdNameSym[sub][sub][arg]| = \verb|\NewName|^{sub}_{sub}(arg)
                                                                                                 \verb|\cmdNameElm[sub][sub][arg]| = NewName_{sub}^{sub}(arg)
                                                                               622 \newcommandx{\cmdmthoargsymelm}[2][2=]
                                                                                                   {\cmdmthoargsym{#1}[#2]%
                                                                                                    \cmdmthoargelm{#1}[#2]}
                                                                               624
   \cmdmthparsymelm ... to do!
                                                                                         \cmdmthparsymelm{cmdName};
                                                                                                 \verb|\cmdNameSym[sub][sub][ext1]{par}[ext2] = \verb|\cmdName|^{sub}_{sub} ext1[par]ext2|
                                                                                                 \verb|\cmdNameElm[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                                                                                         • \cmdmthparsymelm{cmdName}[NewName];
                                                                                                 \verb|\cmdNameSym[sub][sub][ext1]{par}[ext2] = \verb|\cmdName| subext1[par]ext2|
                                                                                                 \colone{local} \col
                                                                                625 \newcommandx{\cmdmthparsymelm}[2][2=]
                                                                                                    {\cmdmthparsym{#1}[#2]%
                                                                               627
                                                                                                    \cmdmthparelm{#1}[#2]}
\cmdmthoparsymelm
                                                                         ... to do!
                                                                                         \cmdmthoparsymelm{cmdName};
                                                                                                 \verb|\cmdNameSym[sub][sub][par]| = \verb|\cmdName|_{sub}^{sub}[par]|
                                                                                                 \colone{locality} \colone{lo
                                                                                         • \cmdmthoparsymelm{cmdName}[NewName];
                                                                                                 \cmlose{cmdNameSym[sub][sub][par]} = 	exttt{NewName}_{sub}^{sub}[par]
                                                                                                 \colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\colonerright{l}{\col
                                                                                628 \newcommandx{\cmdmthoparsymelm}[2][2=]
                                                                                                    {\cmdmthoparsym{#1}[#2]%
                                                                                                    \cmdmthoparelm{#1}[#2]}
                                                                               \mthluop, ... to do!
```

```
• \mthlbop{\oplus}[sub][sup][Ext] = \bigoplus_{sub}^{sup}Ext
                                                                                  632 %% Style for \LaTex Operators
                                                                                  633 \t {luop}\newcommand{\mthstyluop}[1]{\textstyle\mathop{#1}}
                                                                                 634 \cmdmth{lbop}\newcommand{\mthstylbop}[1]{\textstyle\mathbin{#1}}
\cmdmthluop, ... to do!
                                                                                            • \cmdmthluop{cmdName};
                                                                                                   \verb|\cmdNameUOp[sub][sub][ext]| = cmdName_{sub}^{sub}ext
                                                                                            • \cmdmthluop{cmdName}[\oplus];
                                                                                                   \verb|\cmdNameUOp[sub][sub][ext]| = \oplus_{sub}^{sub} ext
                                                                                            \cmdmthlbop{cmdName};
                                                                                                    \cmdNameBOp[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                                                                            • \cmdmthlbop{cmdName}[\oplus];
                                                                                                   \colon colon col
                                                                                  635 \newcommandx{\cmdmthluop}[2][2=]
                                                                                                 {\usrmth{#1}{UOp}{luop}[#2]}
                                                                                  637 \newcommandx{\cmdmthlbop}[2][2=]
                                                                                                 {\usrmth{#1}{BOp}{lbop}[#2]}
                                  \mthlrel ... to do!
                                                                                            • \mthlrel{\preceq}[sub][sup][Ext] = \leq_{sub}^{sup} Ext
                                                                                 639 %% Style for \LaTex Relations
                                                                                 640 \cmdmth{lrel}\newcommand{\mthstylrel}{\mathrel}
                      \cmdmthlrel \dots to \operatorname{do}!
                                                                                            • \cmdmthlrel{cmdName};
                                                                                                    \verb|\cmdNameRel[sub][sub][ext]| = cmdName_{sub}^{sub}ext
                                                                                            • \cmdmthlrel{cmdName}[\preceq];
                                                                                                    \colon 
                                                                                  641 \newcommandx{\cmdmthlrel}[2][2=]
                                                                                 642 {\usrmth{#1}{Rel}{lrel}[#2]}
                                                                                 \mthsnt, ... to do!
                                                                                            • \mthsnt{Name} [sub] [sup] [Ext] = Name_{sub}^{sup}Ext
                                                                                            \bullet \  \, \texttt{\bar{Name}[sub][sup][Ext1]{Arg}[Ext2]} = \mathsf{Name}^{sup}_{sub}Ext1(Arg)Ext2
                                                                                            • \mathbb{E}_{sub}[Sub][Sub][Sub][Ext1][Par][Ext2] = \mathbb{E}_{sub}[Ext1][Par][Ext2]
                                                                                 644 %% Style for Sentences
                                                                                 645 \mbox{ \mbox{$\sim$}} \mbox{\mbox{$\sim$}} \mbox
                         \aSnt, ... to do!
                                                                             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
                                                                              \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                                                              A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, \Pi, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega
                                                                                 646 \seqoflet{Snt}{mthsnt}
                         \cmdmthsnt ... to do!
                                                                                            • \cmdmthsnt{cmdName};
                                                                                                   \cmdNameSnt[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                                                                            • \cmdmthsnt{cmdName}[NewName];
                                                                                                   647 \newcommandx{\cmdmthsnt}[2][2=]
                                                                                 648 {\usrmth{#1}{Snt}{snt}[#2]}
             \c cmdmthargsnt ... to do!
```

```
\cmdmthargsnt{cmdName};
                                               \verb|\cmdNameSnt[sub][sub][ext1]{arg}[ext2] = \verb|\cmdName||_{sub}^{sub} ext1(arg)ext2
                                           \cmdmthargsnt{cmdName} [NewName];
                                               \verb|\cmdNameSnt[sub][sub][ext1]{arg}[ext2] = \verb|\NewName|^{sub}_{sub}ext1(arg)ext2|
                                     649 \newcommandx{\cmdmthargsnt}[2][2=]
                                              {\usrmth{#1}{Snt}{argsnt}[#2]}
\cmdmthoargsnt ... to do!
                                           \cmdmthoargsnt{cmdName};
                                               \verb|\cmdNameSnt[sub][sub][arg]| = \verb|\cmdNameSnt[sub][arg]| = \verb|\cmdNameSnt[sub][arg]|
                                           • \cmdmthoargsnt{cmdName}[NewName];
                                               \colon = NewName_{sub}^{sub}(arg) = NewName_{sub}^{sub}(arg)
                                      651 \newcommandx{\cmdmthoargsnt}[2][2=]
                                              {\usrmth{#1}{Snt}{oargsnt}[#2]}
  \cmdmthparsnt ... to do!
                                           • \cmdmthparsnt{cmdName}:
                                               \verb|\cmdNameSnt[sub][sub][ext1]{par}[ext2] = \verb|\cmdNameSnt[sub][ext1][par]ext2|
                                           • \cmdmthparsnt{cmdName} [NewName];
                                               \cmdNameSnt[sub][sub][ext1]{par}[ext2] = NewName_{sub}^{sub}ext1[par]ext2
                                      653 \newcommandx{\cmdmthparsnt}[2][2=]
                                             {\usrmth{#1}{Snt}{parsnt}[#2]}
\cmdmthoparsnt ... to do!
                                           \cmdmthoparsnt{cmdName};
                                               \verb|\cmdNameSnt[sub][sub][par]| = \verb|\cmdName|_{sub}^{sub}[par]|
                                           • \cmdmthoparsnt{cmdName}[NewName];
                                               \colon 
                                     655 \mbox{ \cmdmthoparsnt}[2][2=]
                                             {\usrmth{#1}{Snt}{oparsnt}[#2]}
    \mthfrm, ... to do!
                                           • \mathbb{S}_{sub}[Sub][Sup][Ext] = Name_{sub}^{sup}Ext
                                           \bullet \  \, \texttt{\bar{Name}[Sub][Sup][Ext1][Arg][Ext2]} = Name^{sup}_{sub}Ext1(Arg)Ext2
                                           \bullet \  \, \texttt{\barking Name} \  \, \texttt{\barking Sub] [Sub] [Ext1] \{Par\} [Ext2]} \  \, = Name_{sub}^{sup} Ext1[Par] Ext2
                                     657 %% Style for Formulae
                                     658 \mbox{\cmmand{\bf https:/mathit}} \
        \aFrm, ... to do!
                                   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
                                   \alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, o, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega
                                   A,~B,~\Gamma,~\Delta,~E,~E,~Z,~H,~\Theta,~\Theta,~I,~K,~K,~\Lambda,~M,~N,~\Xi,~O,~\Pi,~\Pi,~P,~P,~\Sigma,~\Sigma,~T,~\Upsilon,~\Phi,~\Phi,~X,~\Psi,~\Omega
                                     659 \seqoflet{Frm}{mthfrm}
        \cmdmthfrm ... to do!
                                           \cmdmthfrm{cmdName};
                                               \cmdNameFrm[sub][sub][ext] = cmdName_{sub}^{sub}ext
                                           • \cmdmthfrm{cmdName} [NewName];
                                               \cmdNameFrm[sub][sub][ext] = NewName_{sub}^{sub}ext
                                      660 \newcommandx{\cmdmthfrm}[2][2=]
                                              {\usrmth{#1}{Frm}{frm}[#2]}
  \cmdmthargfrm ... to do!
                                           • \cmdmthargfrm{cmdName};
                                               \verb|\cmdNameFrm[sub][sub][ext1]{arg}[ext2] = cmdName_{sub}^{sub}ext1(arg)ext2
                                           • \cmdmthargfrm{cmdName}[NewName];
                                               \verb|\cmdNameFrm[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub} ext1(arg) ext2
```

```
662 \newcommandx{\cmdmthargfrm}[2][2=]
                        {\usrmth{#1}{Frm}{argfrm}[#2]}
\cmdmthoargfrm ... to do!
                       • \cmdmthoargfrm{cmdName};
                         \verb|\cmdNameFrm[sub][sub][arg]| = cmdName_{sub}^{sub}(arg)
                       • \cmdmthoargfrm{cmdName}[NewName];
                         \cmdNameFrm[sub][sub][arg] = NewName_{sub}^{sub}(arg)
                    664 \newcommandx{\cmdmthoargfrm}[2][2=]
                    665 {\usrmth{#1}{Frm}{oargfrm}[#2]}
 \cmdmthparfrm ... to do!
                       \cmdmthparfrm{cmdName};
                         \verb|\cmdNameFrm[sub][sub][ext1]{par}[ext2] = cmdName_{sub}^{sub}ext1[par]ext2|
                       • \cmdmthparfrm{cmdName}[NewName];
                         \cmdNameFrm[sub][sub][ext1]\{par\}[ext2] = NewName_{sub}^{sub}ext1[par]ext2
                    666 \newcommandx{\cmdmthparfrm}[2][2=]
                    667 {\usrmth{#1}{Frm}{parfrm}[#2]}
\cmdmthoparfrm ... to do!
                       • \cmdmthoparfrm{cmdName};
                         \colon dNameFrm[sub][sub][par] = cmdName_{sub}^{sub}[par]
                       • \cmdmthoparfrm{cmdName}[NewName];
                         \cmdNameFrm[sub][sub][par] = NewName_{sub}^{sub}[par]
                    668 \newcommandx{\cmdmthoparfrm}[2][2=]
                         {\usrmth{#1}{Frm}{oparfrm}[#2]}
                   \mthmat, ... to do!
                      • \mthmat{Name}[sub][sup][Ext] = \mathbf{Name}_{sub}^{sup}Ext
                       • \mathbb{E}_{sub}[Sub][Sup][Ext1][Arg][Ext2] = Name_{sub}^{sup}Ext1(Arg)Ext2
                       • \mathbb{E}_{sub}[Sub][Sup][Ext1][Par][Ext2] = Name_{sub}^{sup}Ext1[Par]Ext2
                    671 %% Style for Matrices
                    672 \cmdmthall{mat}\newcommand{\mthstymat}[1]{\boldsymbol{\mathsf{#1}}}
    \aMat, ... to do!
                   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
                   \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,\mathbf{o},\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                   A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega
                    673 \seqoflet{Mat}{mthmat}
    \cmdmthmat ... to do!
                       • \cmdmthmat{cmdName};
                         \cmdNameMat[sub][sub][ext] = \operatorname{cmdName}_{sub}^{sub} ext
                       • \cmdmthmat{cmdName} [NewName];
                         \colon dNameMat[sub][sub][ext] = NewName_{sub}^{sub}ext
                    674 \newcommandx{\cmdmthmat}[2][2=]
                   675 {\usrmth{#1}{Mat}{mat}[#2]}
 \cmdmthargmat ... to do!
                       \cmdmthargmat{cmdName};
                         \verb|\cmdNameMat[sub][sub][ext1]{arg}[ext2] = \mathbf{cmdName}_{sub}^{sub}\!ext1(arg)ext2
                       • \cmdmthargmat{cmdName}[NewName];
                         \cmdNameMat[sub][sub][ext1]{arg}[ext2] = NewName_{sub}^{sub}ext1(arg)ext2
                    676 \newcommandx{\cmdmthargmat}[2][2=]
                    677 {\usrmth{#1}{Mat}{argmat}[#2]}
```

```
\cmdmthoargmat ... to do!
                        • \cmdmthoargmat{cmdName};
                          \cmdNameMat[sub][sub][arg] = cmdName_{sub}^{sub}(arg)
                        • \cmdmthoargmat{cmdName}[NewName];
                          \verb|\cmdNameMat[sub][sub][arg]| = \verb|NewName| sub| (arg)
                     678 \newcommandx{\cmdmthoargmat}[2][2=]
                          {\usrmth{#1}{Mat}{oargmat}[#2]}
 \cmdmthparmat ... to do!
                        • \cmdmthparmat{cmdName};
                          \verb|\cmdNameMat[sub][sub][ext1]{par}[ext2] = \mathbf{cmdName}_{sub}^{sub} ext1[par]ext2
                        • \cmdmthparmat{cmdName} [NewName];
                          \verb|\cmdNameMat[sub][sub][ext1]{par}[ext2] = \verb|\cmdName|^{sub}_{sub}ext1[par]ext2|
                     680 \newcommandx{\cmdmthparmat}[2][2=]
                          {\usrmth{#1}{Mat}{parmat}[#2]}
\cmdmthoparmat ... to do!
                        • \cmdmthoparmat{cmdName};
                          \cmdNameMat[sub][sub][par] = cmdName_{sub}^{sub}[par]
                        • \cmdmthoparmat{cmdName}[NewName];
                          \cmbox{\cmdNameMat[sub][sub][par]} = \mathbf{NewName}^{sub}_{sub}[par]
                     682 \verb|\newcommandx{\cmdmthoparmat}[2][2=]
                         {\usrmth{#1}{Mat}{oparmat}[#2]}
  \mthvec, ... to do!
                        • \mthvec{Name} [sub] [sup] [Ext] = Name_{sub}^{sup}Ext
                         \bullet \ \texttt{\normalfont{Name}[sub][sub][Ext1][Arg][Ext2]} = \textit{Name}_{sub}^{sup} Ext1(Arg) Ext2 
                        \bullet \  \, \texttt{\bar{Name}[Sub][Sup][Ext1][Par][Ext2]} = Name_{sub}^{sup}Ext1[Par]Ext2
                     684 %% Style for Vectors
                     685 \cmdmthall{vec}\newcommand{\mthstyvec}[1]{\boldsymbol{\mathit{#1}}}
     \aVec, ... to do!
                    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
                    \alpha,\,\beta,\,\gamma,\,\delta,\,\epsilon,\,\varepsilon,\,\zeta,\,\eta,\,\theta,\,\vartheta,\,\iota,\,\kappa,\,\varkappa,\,\lambda,\,\mu,\,\nu,\,\xi,\,o,\,\pi,\,\varpi,\,\rho,\,\varrho,\,\sigma,\,\varsigma,\,\tau,\,\upsilon,\,\phi,\,\varphi,\,\chi,\,\psi,\,\omega
                    A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, \Pi, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega
                     686 \seqoflet{Vec}{mthvec}
     \cmdmthvec ... to do!
                        \cmdmthvec{cmdName};
                          \verb|\cmdNameVec[sub][sub][ext]| = cmdName^{sub}_{sub}\!ext|
                        • \cmdmthvec{cmdName} [NewName];
                          \cmdNameVec[sub][sub][ext] = NewName_{sub}^{sub}ext
                     687 \newcommandx{\cmdmthvec}[2][2=]
                     688 {\usrmth{#1}{Vec}{vec}[#2]}
 \cmdmthargvec ... to do!
                        \cmdmthargvec{cmdName};
                          \verb|\cmdNameVec[sub][sub][ext1]{arg}[ext2] = cmdName^{sub}_{sub}\!ext1(arg)ext2
                        • \cmdmthargvec{cmdName} [NewName];
                          \verb|\cmdNameVec[sub][sub][ext1]{arg}[ext2] = NewName^{sub}_{sub}ext1(arg)ext2
                     689 \newcommandx{\cmdmthargvec}[2][2=]
                          {\usrmth{#1}{Vec}{argvec}[#2]}
\cmdmthoargvec ... to do!
                        • \cmdmthoargvec{cmdName};
                          \colon dNameVec[sub][sub][arg] = cmdName^{sub}_{sub}(arg)
```

```
\colon = NewName^{sub}(arg) = NewName^{sub}_{sub}(arg)
               691 \newcommandx{\cmdmthoargvec}[2][2=]
                  {\usrmth{#1}{Vec}{oargvec}[#2]}
 \cmdmthparvec ... to do!
                 \cmdmthparvec{cmdName};
                  \verb|\cmdNameVec[sub][sub][ext1]{par}[ext2] = cmdName^{sub}_{su} ext1[par]ext2
                 • \cmdmthparvec{cmdName} [NewName];
                  \verb|\cmdNameVec[sub][sub][ext1]{par}[ext2] = NewName^{sub}_{sub}ext1[par]ext2
               693 \newcommandx{\cmdmthparvec}[2][2=]
                  {\usrmth{#1}{Vec}{parvec}[#2]}
\cmdmthoparvec ... to do!
                 \cmdmthoparvec{cmdName};
                  \verb|\cmdNameVec[sub][sub][par]| = cmdName^{sub}_{sub}[par]|
                 • \cmdmthoparvec{cmdName}[NewName];
                  \cmdNameVec[sub][sub][par] = NewName_{sub}^{sub}[par]
               695 \newcommandx{\cmdmthoparvec}[2][2=]
                  {\usrmth{#1}{Vec}{oparvec}[#2]}
               702 \iftext@
               \adhoc
                 • \adhoc = ad\ hoc
               704 \cmdtxtabr{adhoc}[ad hoc]
    \afortiori
                 • \arrange a fortiori
               705 \cmdtxtabr{afortiori}[a fortiori]
     \apriori
                 • \apriori = a priori
               706 \cmdtxtabr{apriori}[a priori]
                 • \arrowvertaposteriori = a\ posteriori
  \aposteriori
               707 \cmdtxtabr{aposteriori}[a posteriori]
          \cf
                 • \backslash cf = cf.
               708 \cmdtxtabr{cf}[cf.]
      \dedicto
                 • \del{dedicto} = de \ dicto
               709 \cmdtxtabr{dedicto}[de dicto]
      \defacto
                 • \del{defacto} = de \ facto
               710 \cmdtxtabr{defacto} [de facto]
        \dere
                 • \forall dere = de re
               711 \cmdtxtabr{dere}[de re]
\divideetimpera
                 • \divideetimpera = divide et impera
               712 \cmdtxtabr{divideetimpera}[divide et impera]
          \eg
                 • \backslash eg = e.g.
               713 \cmdtxtabr{eg}[e.g.]
```

\cmdmthoargvec{cmdName} [NewName];

```
\ergo
                       ◆ \ergo = ergo
                    714 \cmdtxtabr{ergo}
                       • \errata = errata
         \errata
                    715 \cmdtxtabr{errata}
                       • \erratum = erratum
        \erratum
                    716 \cmdtxtabr{erratum}
           \etal
                      • \ensuremath{\backslash} \mathtt{etal} = et \ al.
                    717 \cmdtxtabr{etal}[et al.]
            \etc
                      • \backslashetc = etc.
                    718 \cmdtxtabr{etc}[etc.]
                      • \forallie = i.e.
              \ie
                    719 \cmdtxtabr{ie}[i.e.]
                       \bullet \mutatismutandis = mutatis\ mutandis
\mutatismutandis
                    720 \cmdtxtabr{mutatismutandis}[mutatis mutandis]
      \percontra
                      • \percontra = per contra
                    721 \cmdtxtabr{percontra}[per contra]
     \primafacie
                       ullet \primafacie = prima\ facie
                    722 \cmdtxtabr{primafacie}[prima facie]
      \viceversa
                       • \viceversa = vice versa
                    723 \cmdtxtabr{viceversa}[vice versa]
                      • \vert vs = vs.
              \vs
                    724 \cmdtxtabr{vs}[vs.]
            \viz
                      • \viz = viz.
                    725 \cmdtxtabr{viz}[viz.]
                    \Afortiori
                      • \Afortiori = A fortiori
                    727 \cmdtxtabr{Afortiori}[A fortiori]
        \Apriori
                       • \Apriori = A \ priori
                    728 \cmdtxtabr{Apriori}[A priori]
    \Aposteriori
                       • \Aposteriori = A posteriori
                    729 \cmdtxtabr{Aposteriori}[A posteriori]
                       • \Dedicto = De \ dicto
        \Dedicto
                    730 \cmdtxtabr{Dedicto}[De dicto]
        \Defacto
                      \bullet \ \ \texttt{\ } \texttt{Defacto} = \textit{De facto}
                    731 \cmdtxtabr{Defacto} [De facto]
           \Dere
                       • \Dere = De re
                    732 \cmdtxtabr{Dere}[De re]
\Divideetimpera
                       • \Divideetimpera = Divide \ et \ impera
```

733 \cmdtxtabr{Divideetimpera}[Divide et impera]

```
\Eg
                • \Eg = E.g.
              734 \cmdtxtabr{Eg}[E.g.]
                • \Errata = Errata
      \Errata
              735 \cmdtxtabr{Errata}
      \Erratum
                • \Erratum = Erratum
              736 \cmdtxtabr{Erratum}
                • \Mutatismutandis = Mutatis mutandis
\Mutatismutandis
              737 \cmdtxtabr{Mutatismutandis}[Mutatis mutandis]
    \Percontra
                • \ensuremath{\backslash} \mathtt{Percontra} = Per\ contra
              738 \cmdtxtabr{Percontra}[Per contra]
   \Primafacie
                 \bullet \ \ \verb|\Primafacie| = Prima\ facie \\
              739 \cmdtxtabr{Primafacie}[Prima facie]
    \Viceversa
                • \forall Viceversa = Vice versa
              740 \cmdtxtabr{Viceversa}[Vice versa]
              • \n naif = naif
        \n
              744 \mbox{cmdtxtabr{naif}[na\"{i}f]}
       \naive
                • \naive = naive
              745 \cmdtxtabr{naive}[na\"{i}ve]
        \role
                • \role = r\hat{o}le
              746 \cmdtxtabr{role}[r\^{o}le]
              \Role
                • \label{eq:Role} \operatorname{Role} = R \hat{o} l e
              748 \cmdtxtabr{Role}[R\^{o}le]
              \aka
                750 \cmdtxtabr{aka}[a.k.a.]
       \contd
                • \contd = contd.
              751 \cmdtxtabr{contd}[contd.]
         \iff
                • \iff = iff
              752 \cmdtxtabr{iff}
                • \ \ \ \ stx = s.t.
         \stx
              753 \cmdtxtabr{stx}[s.t.]
        \resp
                • \resp = resp.
              754 \cmdtxtabr{resp}[resp.]
```

```
\wrt
            755 \cmdtxtabr{wrt}[w.r.t.]
     \wlogx
            • \wdots w.l.o.g.
           756 \cmdtxtabr{wlogx}[w.l.o.g.]
           \Contd
            • \c Contd = Contd.
           758 \cmdtxtabr{Contd}[Contd.]
            • \Wlogx = W.l.o.q.
     \Wlogx
           759 \cmdtxtabr{Wlogx}[W.l.o.g.]
           765 \ifmath@
           \defeq, \seteq ...
           767 \DeclareRobustCommand{\defeq}
           768 {\mthlbop{\triangleq}}
           769 \DeclareRobustCommand{\seteq}
           770 {\mthlbop{:=}}
           \implies, ...
           772 \DeclareRobustCommand{\implies}
           773 {\mthlrel{\Rightarrow}}
           774 \DeclareRobustCommand{\notimplies}
           775 {\mthlrel{\not\Rightarrow}}
 \implied, ... ...
           776 \DeclareRobustCommand{\implied}
           777 {\mthlrel{\Leftarrow}}
           778 \DeclareRobustCommand{\notimplied}
           779 {\mthlrel{\not\Leftarrow}}
\coimplies, ... ...
           780 \DeclareRobustCommand{\coimplies}
           781 {\mthlrel{\Leftrightarrow}}
           782 \verb|\DeclareRobustCommand{\notcoimplies}|
           783 {\mthlrel{\not\!\Leftrightarrow}}
           \cmodels, ... ...
           785 \DeclareRobustCommand{\cmodels}
           786 {\mthlrel{\models}}
           787 \DeclareRobustCommand{\notcmodels}
           788 {\mthlrel{\not\models}}
 \landcequiv, ... ...
           789 \DeclareRobustCommand{\cequiv}
           790 {\mthlrel{\equiv}}
           791 \DeclareRobustCommand{\notcequiv}
           792 {\mthlrel{\not\equiv}}
```

```
\dual, \adj, ... ...
                                       794 \DeclareRobustCommand{\dual}[1]
                                                {\mth{\overline{#1}}}
                                       796 \DeclareRobustCommand{\adj}[1]
                                                {\mth{\mathring{#1}}}
                                        798 \DeclareRobustCommand{\der}[1]
                                                 {\mth{\widehat{#1}}}
                                       800 \DeclareRobustCommand{\trn}[1]
                                       801 \quad \{\mathbf{mth}\{\mathbf{41}\}\}
                         \vec ...
                                       802 \DeclareRobustCommand{\vec}[1]
                                        803 {\mth{\mathaccent"017E{#1}}}
                                       \enumeration, ... ...
                                       805 \\ \end{enumeration}_{\hf}_{\hf}_{\hf}
                                       806 \operatorname{denumerationx}{\mathbf{}}{;}{}{}
     \sequence, ... ...
                                       807 \varcmd{sequence}{\mth}{\left[}{,}{\right]}{}
                                       808 \\ \varcmd{sequencel}{\mth}{\left[}{,}{\right.}{}
                                       809 \varcmd{sequencer}{\mth}{\left.}{,}{\right]}{}
                                       810 \varcmd{sequencex}{\mth}{\left[}{;}{\right]}{}
                                       811 \varcmd{sequencexl}{\mth}{\left[}{;}{\right.}{}
                                       812 \end{sequencexr} {\bf \{} \end{sequencexr}
           \tuple, ... ...
                                       813 \varcmd{tuple}{\mth}{\left\langle}{,}{\right\rangle}{}
                                       814 \varcmd{tuplel}{\mth}{\left\langle}{,}{\right.}{}
                                       815 \varcmd{tupler}{\mth}{\left.}{,}{\right\rangle}{}
                                       816 \varcmd{tuplex}{\mth}{\left\langle}{;}{\right\rangle}{}
                                       817 \varcmd{tuplexl}{\mth}{\left\langle}{;}{\right.}{}
                                       818 \varcmd{tuplexr}{\mth}{\left.}{;}{\right\rangle}{}
                                       \set, ... ...
                                       820 \DeclareRobustCommand{\set}[2]
                                                {\argmid{\left\lbrace}{\argsep{#1}{\,\middle\vert\,}{#2}}{\right\rbrace}}
                                       822 \DeclareRobustCommand{\set1}[1]
                                       823 \quad {\argmid{\left\{ \left( \frac{\#1}{\,\right\} }\right\} }}
                                       824 \DeclareRobustCommand{\setr}[1]
                                                {\argmid{\left.}{#1}{\right\rbrace}}
                        \card ...
                                       826 \DeclareRobustCommand{\card}[1]
                                               {\mth{\argmid{\lvert}{#1}{\rvert}}}
                         ... woa/
                                       828 \DeclareRobustCommand{\pow}[1]
                                                {\bf 2^{\hat 1}}{\cdot}}
                      \denot ...
                                       830 \DeclareRobustCommand{\denot}[1]
                                                {\mth{\argmid{\llbracket}{#1}{\rrbracket}}}
```

```
\emptyrel ...
             833 \DeclareRobustCommand{\emptyrel}
             834 {\mth{\varnothing}}
             \dom, \cod, ... ...
             836 \DeclareRobustCommand{\dom}
             837 {\mthargfun{dom}}
             838 \DeclareRobustCommand{\cod}
             839 {\mthargfun{cod}}
             840 \DeclareRobustCommand{\rng}
             841 {\mthargfun{rng}}
             842 \DeclareRobustCommand{\img}
             843 \quad \{\mathbf{mthargfun\{img}\}\}\
             \prj ...
             845 \DeclareRobustCommand{\prj}
             846 {\mthargfun{prj}}
        \rst ...
             847 \DeclareRobustCommand{\rst}
             848 {\mthlbop{\upharpoonright}}
        \cmp ...
             849 \DeclareRobustCommand{\cmp}
             850 {\mthlbop{\circ}}
             \emptyfun ...
             852 \verb|\DeclareRobustCommand{\emptyfun}|
             853 {\mth{\varnothing}}
             \pto, \pmapsto
             855 \DeclareMathOperator{\pto}
             856 {\ensuremath{\rightharpoonup}}
             857 \DeclareMathOperator{\pmapsto}
             858 \qquad {\tt \{\notemath{\nathrel{\naisebox\{0.5ex\}{\notemathsize$\{\llcorner\}$\}\%}}}
                  \kern-1.5ex\rightharpoonup}}}
             \fix, \ifp, ... ...
             861 \DeclareRobustCommand{\fix}
             862 {\mthfun{fix}}
             863 \DeclareRobustCommand{\ifp}
             864 {\mthfun{ifp}}
             865 \DeclareRobustCommand{\lfp}
             866 {\mthfun{lfp}}
             867 \DeclareRobustCommand{\gfp}
                {\mthfun{gfp}}
             \Aomega, \AOmega
             870 \DeclareRobustCommand{\Aomega}
                {\mthargset{\omega}}
             872 \DeclareRobustCommand{\AOmega}
             873 {\mthargset{\Omega}}
```

```
\Atheta, \ATheta ...
                  874 \DeclareRobustCommand{\Atheta}
                  875 {\mthargset{\theta}}
                  876 \DeclareRobustCommand{\ATheta}
                  877 {\mthargset{\Theta}}
 \Aomicron, ... ...
                  878 \DeclareRobustCommand{\Aomicron}
                  879 {\mthargset{\omicron}}
                  880 \label{lem:bustCommand} $$80 \label{lem:bustCommand} \AOmicron $$
                  881 {\mthargset{\Omicron}}
                  \SetB ...
                  883 \DeclareRobustCommand{\SetB}
                  884 {\mthset[mathbb]{B}}
          \SetF ...
                  885 \DeclareRobustCommand{\SetF}
                  886 {\mthset[mathbb]{F}}
     \SetN, ... ...
                  887 \DeclareRobustCommand{\SetN}
                  888 {\mthset[mathbb]{N}}
                  889 \DeclareRobustCommand{\SetNI}[1][]
                  890 {\SetN[\infty #1]}
     \SetZ, ... ...
                  891 \DeclareRobustCommand{\SetZ}
                  892 {\mthset[mathbb]{Z}}
                  893 \DeclareRobustCommand{\SetZI}[1][]
                  894 {\SetZ[\pm\infty #1]}
                  895 \DeclareRobustCommand{\SetZPI}[1][]
                  896 {\SetZ[+\infty #1]}
                  897 \DeclareRobustCommand{\SetZNI}[1][]
                  898 {\SetZ[-\infty #1]}
     \SetQ, ... ...
                  899 \DeclareRobustCommand{\SetQ}
                  900 {\mthset[mathbb]{Q}}
                  901 \DeclareRobustCommand{\SetQI}[1][]
                  902 {\SetQ[\pm\infty #1]}
                  903 \DeclareRobustCommand{\SetQPI}[1][]
                  904 {\SetQ[+\infty #1]}
                  905 \DeclareRobustCommand{\SetQNI}[1][]
                  906 {\SetQ[-\infty #1]}
     \SetR, ... ...
                  907 \DeclareRobustCommand{\SetR}
                  908 {\mthset[mathbb]{R}}
                  909 \DeclareRobustCommand{\SetRI}[1][]
                  910 {\SetR[\pm\infty #1]}
                  911 \DeclareRobustCommand{\SetRPI}[1][]
                  912 {\SetR[+\infty #1]}
                  913 \DeclareRobustCommand{\SetRNI}[1][]
                  914 {\SetR[-\infty #1]}
     \SetC, ... ...
                  915 \DeclareRobustCommand{\SetC}
                  916 {\mthset[mathbb]{C}}
                  917 \DeclareRobustCommand{\SetCI}[1][]
                  918 {\SetC[\infty #1]}
```

```
\num, ... ...
              920 \DeclareRobustCommand{\num}[1]
              921
                 {\mth{[#1]}}
              922 \DeclareRobustCommand{\numcc}[2]
              923 {\mth{[\argsep{#1}{,}{#2}]}}
              924 \DeclareRobustCommand{\numco}[2]
                 {\mth{[\argsep{#1}{,}{#2})}}
              926 \DeclareRobustCommand{\numoc}[2]
              927 {\mth{(\argsep{#1}{,}{#2}]}}
              928 \DeclareRobustCommand{\numoo}[2]
                  {\mth{(\argsep{#1}{,}{#2}))}}
              \floor, \ceil
              931 \DeclareRobustCommand{\floor}[1]
              932 {\mth{\argmid{\left\lfloor}{#1}{\right\rfloor}}}
              933 \DeclareRobustCommand{\ceil}[1]
                 {\mth{\argmid{\left\lceil}{#1}{\right\rceil}}}
              \arg ...
              936 \DeclareRobustCommand{\arg}
              937 {\mthfun{arg}}
    \evn, \odd ...
              938 \DeclareRobustCommand{\evn}
              939 {\mthfun{evn}}
              940 \DeclareRobustCommand{\odd}
              941 {\mthfun{odd}}
    \bst, ... ...
              942 \DeclareRobustCommand{\bst}
              943 {\mthfun{bst}}
              944 \DeclareRobustCommand{\argbst}
              945 {\mthfun{arg bst}}
\min, \max, ... ...
              946 \DeclareRobustCommand{\min}
              947 {\bf min}
              948 \DeclareRobustCommand{\max}
              949 {\bf mthfun\{max\}}
              950 \DeclareRobustCommand{\argmin}
                 {\mthfun{arg min}}
              952 \DeclareRobustCommand{\argmax}
                 {\mthfun{arg max}}
    \inf, \sup
              954 \DeclareRobustCommand{\inf}
              955 {\bf \{mthfun\{inf\}}
              956 \DeclareRobustCommand{\sup}
              957 {\bf \{mthfun\{sup\}}\}
              \emptyseq ...
              959 \DeclareRobustCommand{\emptyseq}
              960 {\bf \{nth\{varepsilon\}}\}
```

```
\fst, \lst ...
             961 \verb|\DeclareRobustCommand{\fst}|
             962 {\mthargfun{fst}}
             963 \DeclareRobustCommand{\lst}
             964 {\mathbf{t}}
             965 \fi
             970 \ifcom@
\defcomcls ... to do!
                • \defcomcls{CompClass};
                  \CompClass[sub][sup][ext] = COMPCLASS_{SUB}^{SUP}EXT
                  \CoCompClass[sub][sup][ext] = CoCompClass_{SUB}^{SUP}EXT
                  \CompClassE[sub][sup][ext] = COMPCLASS-EASY_{SUB}^{SUP}EXT
                  \verb|\CoCompClassE[sub][sup][ext]| = CoCompClass-Easy_{SUB}^{SUP}EXT|
                  \CompClassH[sub][sup][ext] = COMPCLASS-HARD_{SUB}^{SUP}EXT
                  \verb|\CoCompClassH[sub][sup][ext]| = CoCompClass-Hard_{Sup}^{SUP}EXT
                  \verb|\CompClassC[sub][sup][ext]| = CompClass-complete_{SUB}^{SUP}EXT
                  \CoCompClassC[sub][sup][ext] = CoCompClass-CompLete_{SUB}^{SUP}EXT
                  \verb|\NCompClass[sub][sup][ext]| = NCOMPCLASS^{SUP}_{SUB}EXT
                  \verb|\ConCompClass[sub][sup][ext]| = ConCompClass_{SUB}^{SUP}EXT
                  \verb|\NCompClassE[sub][sup][ext]| = NCompClass-Easy_{SUB}^{SUP}EXT|
                  \verb|\ConCompClassE[sub][sup][ext]| = ConCompClass-Easy_{SUB}^{SUP}EXT
                  \verb|\NCompClassH[sub][sup][ext]| = NCompClass-Hard_{SUB}^{SUP}EXT
                  \ConCompClassH[sub][sup][ext] = ConCompClass-Hard_{SUB}^{SUP}EXT
                  \label{eq:ncompClassC} $$\N{\compClassC[sub][sup][ext]} = N{\ccompClass-complete}_{SUB}^{SUP}EXT
                  \verb|\ConCompClassC[sub][sup][ext]| = ConCompClass-complete_{sur}^{SUP}EXT
                  \UCompClass[sub][sup][ext] = UCompClass_{SUB}^{SUP}EXT
                  \texttt{CoUCompClass[sub][sup][ext]} = \texttt{CoUCompClass}^{\texttt{SUP}}_{\texttt{SUB}} \texttt{EXT}
                  \UCompClassE[sub][sup][ext] = UCompClass-Easy_{SUB}^{SUP}EXT
                  \Coulomb Class E[sub][sup][ext] = Coulomb Class-Easy_{SUB}^{SUP}EXT
                  \verb|VCompClassH[sub][sup][ext]| = UCOMPCLASS-HARD_{SUB}^{SUP}EXT
                  \verb|\CoUCompClassH[sub][sup][ext]| = CoUCompClass-Hard_{SUB}^{SUP}EXT
                  \label{eq:UCompClassC} $$\UCompClassC[sub][sup][ext] = UCompClass-Complete_{SUB}^{SUP}EXT$
                  \verb|\CoUCompClassC[sub][sup][ext]| = CoUCOMPCLASS-COMPLETE_{SUB}^{SUP}EXT
                  \triangle CompClass[sub][sup][ext] = ACOMPCLASS_{SUB}^{SUP}EXT
                  \verb|\CoACompClass[sub][sup][ext]| = CoACompClass_{SUB}^{SUP}EXT
                  \verb|\ACompClassE[sub][sup][ext]| = ACOMPCLASS-EASY_{SUB}^{SUP}EXT
                  \verb|\CoACompClassE[sub][sup][ext]| = CoACompClass-Easy_{SUB}^{SUP}EXT
                  \ACompClassH[sub][sup][ext] = ACOMPCLASS-HARD_{SUB}^{SUP}EXT
                  \CoACompClassH[sub][sup][ext] = CoACompClass-Hard_{SUB}^{SUP}EXT
                  \triangle CompClassC[sub][sup][ext] = ACOMPCLASS-COMPLETE_{SUB}^{SUP}EXT
                  \verb|\CoACompClassC[sub][sup][ext]| = CoACompClass-complete_{SUB}^{SUP}EXT
                \defcomcls{CompClass}[NewClass];
                  \CompClass[sub][sup][ext] = NewClass_{Sub}^{SUP}EXT
                  \verb|\CoCompClass[sub][sup][ext]| = CoNewClass_{SUB}^{SUP}EXT
                  \CompClassE[sub][sup][ext] = NewClass-easy_{Sub}^{SUP}EXT
                  \CoCompClassE[sub][sup][ext] = CoNewClass-Easy_{SUB}^{SUP}EXT
                  \CompClassH[sub][sup][ext] = NewClass-Hard_{SUB}^{SUP}EXT
                  \verb|\CoCompClassH[sub][sup][ext]| = CoNewClass-Hard_{Sur}^{SUP}EXT
                  \verb|\CompClassC[sub][sup][ext]| = NewClass-complete_{SUB}^{SUP}EXT
                  \verb|\CoCompClassC[sub][sup][ext]| = CoNewClass-complete_{SUB}^{SUP}EXT
                  \N{\c CompClass[sub][sup][ext]} = NN{\c EWCLASS}_{SUB}^{SUP}{\c EXT}
                  \verb|\CoNCompClass[sub][sup][ext]| = CoNNewClass^{SUP}_{SUB}EXT
```

```
\verb|\ConCompClassE[sub][sup][ext]| = ConNewClass-Easy_{Sub}^{SUP}EXT
                          \verb|\NCompClassH[sub][sup][ext]| = NNEWCLASS-HARD_{SUB}^{SUP}EXT
                          \verb|\ConCompClassH[sub][sup][ext]| = ConNewClass-Hard_{SUB}^{SUP}EXT
                          \verb|\NCompClassC[sub][sup][ext]| = NNEWCLASS-COMPLETE_{SUB}^{SUP}EXT
                          \ConCompClassC[sub][sup][ext] = ConNewClass-Complete_{SUB}^{SUP}EXT
                          \verb|\UCompClass[sub][sup][ext]| = UNEWCLASS^{SUP}_{SUB}EXT
                          \verb|\CoUCompClass[sub][sup][ext]| = CoUNEWCLASS_{SUB}^{SUP}EXT
                          \verb|\UCompClassE[sub][sup][ext]| = UNEWCLASS-EASY_{SUB}^{SUP}EXT
                          \verb|\CoUCompClassE[sub][sup][ext]| = CoUNEWCLASS-EASY_{SUB}^{SUP}EXT
                          \verb|\UCompClassH[sub][sup][ext]| = UNEWCLASS-HARD_{SUB}^{SUP}EXT
                          \Coulomb ClassH[sub][sup][ext] = CoUNEW CLASS-HARD_{SUR}^{SUP}EXT
                          \UCompClassC[sub][sup][ext] = UNEWCLASS-COMPLETE_{SUB}^{SUP}EXT
                          \verb|\CoUCompClassC[sub][sup][ext]| = CoUNewClass-Complete_{SUB}^{SUP}EXT
                          \triangle CompClass[sub][sup][ext] = ANEWCLASS_{SUB}^{SUP}EXT
                          \CoACompClass[sub][sup][ext] = CoANEWCLASS_{SUB}^{SUP}EXT
                          \triangle CompClassE[sub][sup][ext] = ANEWCLASS-EASY_{SUB}^{SUP}EXT
                          \verb|\CoACompClassE[sub][sup][ext]| = CoANewClass-easy_{sup}^{SUP}EXT
                          \Lambda CompClassH[sub][sup][ext] = ANEWCLASS-HARD_{SUB}^{SUP}EXT
                          \verb|\CoACompClassH[sub][sup][ext]| = CoANewClass-Hard_{SUB}^{SUP}EXT
                          \verb|\ACompClassC[sub][sup][ext]| = ANEWCLASS-COMPLETE_{SUB}^{SUP}EXT
                          \CoACompClassC[sub][sup][ext] = CoANewClass-CompLete_{Sup}^{SUP}EXT
                     971 \newcommandx{\defcomcls}[2][2=]
                          {\defcomclssem{#1}{\defval{#2}{#1}}%
                           \displaystyle \operatorname{defcomclssem}\{\#1\}\{\operatorname{defval}\{\#2\}\{\#1\}\}[Co]\}
                     973
                     974 \newcommandx{\defcomclssem}[3][3=]
                     975
                         {\defcomclsred{#3#1}{#2}[#3]%
                          \defcomclsred{#3N#1}{#2}[#3N]%
                          \defcomclsred{#3U#1}{#2}[#3U]%
                          \defcomclsred{#3A#1}{#2}[#3A]}
                     979 \newcommandx{\defcomclsred}[3][3=]
                          {\defcomclscmd{#1}{#2}[#3]%
                          \defcomclscmd{#1E}{#2}[#3][-easy]%
                     981
                          \defcomclscmd{#1H}{#2}[#3][-hard]%
                     982
                          \defcomclscmd{#1C}{#2}[#3][-complete]}%
                     984 \newcommandx{\defcomclscmd}[4][3=, 4=]
                          {\csdef{#1}{\txtcom{#3#2#4}}}
       \defcomhrc ... to do!
                        • \defcomhrc{CompHierarchy};
                          CompHierarchy[sub][sup][ext] = COMPHIERARCHY<sup>SUP</sup><sub>SUB</sub>EXT
                        • \defcomhrc{CompHierarchy} [NewHierarchy];
                          CompHierarchy[sub][sup][ext] = NEWHIERARCHY_{SUB}^{SUP}EXT
                     986 \newcommandx{\defcomhrc}[2][2=]
                          {\csdef{#1}{\txtcom{\defval{#2}{#1}}}}
                     \Easy, \Hard, ...
                     989 \cmdtxtcom{Easy}
                     990 \cmdtxtcom{Hard}
                     991 \cmdtxtcom{Complete}
                     • Time[sub][sup][ext] = TIME_{SUB}^{SUP}EXT
       \Time, ...
                          \verb|\TimeE[sub][sup][ext]| = TIME-EASY_{SUR}^{SUP}EXT
                          TimeH[sub][sup][ext] = TIME-HARD_{SUB}^{SUP}EXT
                          TimeC[sub][sup][ext] = TIME-COMPLETE_{SUB}^{SUP}EXT
```

 $\NCompClassE[sub][sup][ext] = NNEWCLASS-EASY_{SUB}^{SUP}EXT$

```
\verb| NTimeC[sub][sup][ext] = NTime-complete | Sup | Su
                                       \UTimeE[sub][sup][ext] = UTIME-EASY_{SUB}^{SUP}EXT
                                          \verb|\UTimeH[sub][sup][ext]| = UTime-Hard_{SUB}^{SUP}EXT
                                          \verb| UTimeC[sub][sup][ext] = UTime-complete_{sub}^{sup}Ext
                                       • ATime[sub][sup][ext] = ATIME_{SUB}^{SUP}EXT
                                           \verb|\ATimeE[sub][sup][ext]| = ATime-EASY_{SUB}^{SUP}EXT
                                           \Delta TimeH[sub][sup][ext] = ATIME-HARD_{SUB}^{SUP}EXT
                                          \verb| ATimeC[sub][sup][ext] = ATIME-COMPLETE_{SUB}^{SUP}EXT|
                                  993 \defcomcls{Time}
      \Space, ...
                                       \verb|\SpaceE[sub][sup][ext]| = SPACE-EASY_{SUB}^{SUP}EXT
                                           \SpaceH[sub][sup][ext] = SPACE-HARD_{SUB}^{SUP}EXT
                                           \SpaceC[sub][sup][ext] = SPACE-COMPLETE_{SUB}^{SUP}EXT
                                       • \NSpace[sub][sup][ext] = NSPACE_{SUB}^{SUP}EXT
                                          \verb|\NSpaceE[sub][sup][ext]| = NSPACE-EASY_{SUB}^{SUP}EXT
                                           \NSpaceH[sub][sup][ext] = NSPACE-HARD_{SUB}^{SUP}EXT
                                           \NSpaceC[sub][sup][ext] = NSPACE-COMPLETE_{SUB}^{SUP}EXT
                                       • USpace[sub][sup][ext] = USPACE_{SUB}^{SUP}EXT
                                           \USpaceE[sub][sup][ext] = USPACE-EASY_{SUB}^{SUP}EXT
                                           \verb|\USpaceH[sub][sup][ext]| = USpace-Hard_{Sub}^{SUP}EXT
                                           \USpaceC[sub][sup][ext] = USPACE-COMPLETE_{SUB}^{SUP}EXT
                                       • ASpace[sub][sup][ext] = ASPACE_{SUB}^{SUP}EXT
                                           \verb|\ASpaceE[sub][sup][ext]| = ASPACE-EASY_{SUB}^{SUP}EXT
                                           \verb|\ASpaceH[sub][sup][ext]| = ASPACE-HARD_{SUB}^{SUP}EXT
                                          ASpaceC[sub][sup][ext] = ASPACE-COMPLETE_{SUB}^{SUP}EXT
                                  994 \defcomcls{Space}
 \LogTime, ...
                                       • \lfloor LogTime[sub][sup][ext] = LogTime_{Sub}^{Sup}EXT
                                          \lceil LogTimeE[sub][sup][ext] = LogTime-Easy_{Sub}^{SUP}EXT
                                          LogTimeH[sub][sup][ext] = LogTime-Hard_{Sub}^{Sup}EXT
                                          \verb|\LogTimeC[sub][sup][ext]| = LogTime-complete_{sup}^{SUP}EXT|
                                       • NLogTime[sub][sup][ext] = NLogTime_{SUP}^{SUP}EXT
                                           \NLogTimeE[sub][sup][ext] = NLogTime-EASY_{SUB}^{SUP}EXT
                                           \NLogTimeH[sub][sup][ext] = NLogTime-HARD_{SUB}^{SUP}EXT
                                          \label{eq:NLogTimeC} $$\NLogTimeC[sub][sup][ext] = NLogTime-COMPLETE_{SUB}^{SUP}EXT$
                                       • \ULogTime[sub][sup][ext] = ULogTime_{SUB}^{SUP}EXT
                                          \ULogTimeE[sub][sup][ext] = ULogTime-EASY_{SUB}^{SUP}EXT
                                           \ULogTimeH[sub][sup][ext] = ULogTime-Hard_{Sub}^{SUP}EXT
                                          \ULogTimeC[sub][sup][ext] = ULogTIME-COMPLETE_{SUB}^{SUP}EXT
                                       • ALogTime[sub][sup][ext] = ALogTime_{SUB}^{SUP}EXT
                                          \verb|\ALogTimeE[sub][sup][ext]| = ALogTime-Easy_{SUB}^{SUP}EXT
                                          \Lambda = ALogTimeH[sub][sup][ext] = ALogTime-Hard_{Sur}^{SUP}EXT
                                          ALogTimeC[sub][sup][ext] = ALogTime-Complete_{Sub}^{SUP}EXT
                                 995 \defcomcls{LogTime}
                                        \bullet \ \texttt{LogSpace[sub][sup][ext]} = \mathrm{LogSpace}^{SUP}_{SUB} EXT \\
\LogSpace, ...
                                          \verb|\LogSpaceE[sub][sup][ext]| = LogSpace-Easy_{SUB}^{SUP}EXT
                                          LogSpaceH[sub][sup][ext] = LogSpace-Hard_{Sub}^{SUP}EXT
                                          LogSpaceC[sub][sup][ext] = LogSpace-Complete_{Sub}^{SUP}EXT
                                       \NLogSpaceE[sub][sup][ext] = NLogSpace-Easy_{SUB}^{SUP}EXT
                                           \verb|\NLogSpaceH[sub][sup][ext]| = NLogSpace-Hard_{SUB}^{SUP}EXT
                                          \NLogSpaceC[sub][sup][ext] = NLogSpace-Complete_{SUB}^{SUP}EXT
```

• $\NTime[sub][sup][ext] = NTIME_{SUB}^{SUP}EXT$

 $\label{eq:NTimeEsub} $$ [\sup] [ext] = NTIME-EASY_{SUB}^{SUP} EXT $$ NTIMEH[sub] [sup] [ext] = NTIME-HARD_{SUB}^{SUB} EXT $$ Extra $$ NT$

• \ALogSpace[sub][sup][ext] = ALogSpace_Sup_EXT $\verb|\ALogSpaceE[sub][sup][ext]| = ALogSpace-easy_{\text{\tiny SUP}}^{\text{SUP}} EXT$ $\verb|\ALogSpaceH[sub][sup][ext]| = ALogSpace-hard_{SUB}^{SUP}EXT$ $\verb|\ALogSpaceC[sub][sup][ext]| = ALogSpace-complete_{SUB}^{SUP}EXT$ 996 \defcomcls{LogSpace} \PTime, ... • \P [sub] [sup] [ext] = $PTIME_{SUB}^{SUP}EXT$ \PTimeE[sub][sup][ext] = PTIME-EASY_SUP_EXT \P \PTimeH[sub][sup][ext] = \PTIME-HARD_SUP_SUP_EXT \PTimeC[sub][sup][ext] = PTIME-COMPLETE_SUP_EXT $\verb|\NPTimeE[sub][sup][ext]| = NPTIME-EASY_{SUB}^{SUP}EXT$ $\verb|\NPTimeH[sub][sup][ext]| = NPTIME-HARD_{SUB}^{SUP}EXT$ $\NPTimeC[sub][sup][ext] = NPTIME-COMPLETE_{SUB}^{SUP}EXT$ • $\UPTime[sub][sup][ext] = UPTIME_{SUB}^{SUP}EXT$ $\UPTimeE[sub][sup][ext] = UPTIME-EASY_{SUP}^{SUP}EXT$ $\label{eq:uptimeH} $$ \operatorname{UPTIME-HARD}_{SUB}^{SUP} = \operatorname{UPTIME-HARD}_{SUB}^$ $\UPTimeC[sub][sup][ext] = UPTIME-COMPLETE_{SUB}^{SUP}EXT$ $\bullet \ \ \texttt{APTime[sub][sup][ext]} = APTIME^{SUP}_{SUB}EXT$ $\label{eq:aptimeEsub} $$ \Delta PTimeE[sub][sup][ext] = APTIME-EASY_{SUB}^{SUP}EXT $$$ $\verb| APTimeH[sub][sup][ext] = APTIME-HARD_{SUB}^{SUP}EXT$ $\APTimeC[sub][sup][ext] = APTIME-COMPLETE_{SUB}^{SUP}EXT$ 997 \defcomcls{PTime} • $\PSpace[sub][sup][ext] = PSPACE_{SUB}^{SUP}EXT$ \PSpace, ... $\verb|\PSpaceE[sub][sup][ext]| = PSPACE-EASY_{SUB}^{SUP}EXT$ $\label{eq:pspaceH} $$ \PSpaceH[sub][sup][ext] = PSpace-Hard_{Sub}^{SUP}EXT$ $\label{eq:pspaceC} $$ \PSpaceC[sub][sup][ext] = PSpace-Complete_{SUB}^{SUP}EXT $$ • $\NPSpace[sub][sup][ext] = NPSPACE_{SUB}^{SUP}EXT$ $\verb|NPSpaceE[sub][sup][ext]| = NPSPACE-EASY_{SUB}^{SUP}EXT|$ $\NPSpaceH[sub][sup][ext] = NPSPACE-HARD_{SUB}^{SUP}EXT$ $\verb|\NPSpaceC[sub][sup][ext]| = NPSPACE-COMPLETE_{SUB}^{SUP}EXT$ • \UPSpace[sub][sup][ext] = UPSPACE_SUP_EXT $\verb|VPSpaceE[sub][sup][ext]| = UPSPACE-EASY_{SUB}^{SUP}EXT|$ $\UPSpaceH[sub][sup][ext] = UPSpace-HARD_{SUB}^{SUP}EXT$ $\verb| UPSpaceC[sub][sup][ext] = UPSPACE-COMPLETE^{SUP}_{SUB}EXT$ • $APSpace[sub][sup][ext] = APSPACE_{SUB}^{SUP}EXT$ $\verb|\APSpaceE[sub][sup][ext]| = APSPACE-EASY_{SUB}^{SUP}EXT$ $APSpaceH[sub][sup][ext] = APSPACE-HARD_{SUB}^{SUP}EXT$ $APSpaceC[sub][sup][ext] = APSPACE-COMPLETE_{SUB}^{SUP}EXT$ 998 \defcomcls{PSpace} • $\QPTime[sub][sup][ext] = QPTIME_{SUB}^{SUP}EXT$ \QPTime, ... $\label{eq:QPTimeEsub} $$ \PTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_{SUB}^{SUP} = QPTIME-EASY_$ $\verb|\QPTimeH[sub][sup][ext]| = \mathrm{QPTIME-HARD}^{SUP}_{SUB}\mathrm{EXT}|$ $\QPTimeC[sub][sup][ext] = QPTIME-COMPLETE_{SUB}^{SUP}EXT$ • $\NQPTime[sub][sup][ext] = NQPTIME_{SUB}^{SUP}EXT$ $\verb|\NQPTimeE[sub][sup][ext]| = NQPTIME-EASY_{SUB}^{SUP}EXT|$ $\verb|\NQPTimeH[sub][sup][ext]| = NQPTIME-HARD_{SUB}^{SUP}EXT$ $\verb|\NQPTimeC[sub][sup][ext]| = NQPTIME-COMPLETE_{SUB}^{SUP}EXT|$ • $\UQPTime[sub][sup][ext] = UQPTIME_{SUB}^{SUP}EXT$ $\verb|VQPTimeE[sub][sup][ext]| = UQPTIME-EASY_{SUB}^{SUP}EXT$ $\verb|VQPTimeH[sub][sup][ext]| = \mathrm{UQPTIME-HARD}^{SUP}_{SUB}\mathrm{EXT}$ $\label{eq:uqptimec} $$ \UQPTimeC[sub][sup][ext] = UQPTIME-COMPLETE_{SUB}^{SUP}EXT $$$

• \ULogSpace[sub][sup][ext] = ULogSpace_Sup_EXT

 $\label{eq:logspace} $$ \U\log PACE-EASY_{SUB}^{SUP} = ULOGSPACE-EASY_{SUB}^{SUP} = ULOGSPACE-HARD_{SUB}^{SUP} = ULOGSPACE-HARD_{SUB}^{SUP} = ULOGSPACE-COMPLETE_{SUB}^{SUP} = ULOGSPACE-COMPLETE_{SUB}^$

```
\verb|\AQPTimeE[sub][sup][ext]| = \mathrm{AQPTIME\text{-}EASY}^{SUP}_{SUB}\mathrm{EXT}|
                           \verb| AQPTimeH[sub][sup][ext] = AQPTIME-HARD_{SUB}^{SUP}EXT
                           \verb| AQPTimeC[sub][sup][ext] = AQPTIME-COMPLETE_{SUB}^{SUP}EXT
                      999 \defcomcls{QPTime}
 \QPSpace, ...
                         • \QPSpace[sub][sup][ext] = QPSPACE_{SUB}^{SUP}EXT
                           \verb|\QPSpaceE[sub][sup][ext]| = QPSpace-easy_{Sub}^{Sup}ext|
                           \verb|\QPSpaceH[sub][sup][ext]| = QPSPACE-HARD_{SUB}^{SUP}EXT|
                           \label{eq:QPSpaceCsub} $$ \QPSpaceC[sub][sup][ext] = QPSpace-COMPLETE_{SUB}^{SUP}EXT $$
                         • \NQPSpace[sub][sup][ext] = NQPSPACE_{SUB}^{SUP}EXT
                           \NQPSpaceE[sub][sup][ext] = NQPSPACE-EASY_{SUP}^{SUP}EXT
                           \NQPSpaceH[sub][sup][ext] = NQPSPACE-HARD_{SUP}^{SUP}EXT
                           \NQPSpaceC[sub][sup][ext] = NQPSPACE-COMPLETE_{SUB}^{SUP}EXT
                         \verb|VQPSpaceE[sub][sup][ext]| = UQPSPACE-EASY_{SUB}^{SUP}EXT|
                           \verb|VQPSpaceH[sub][sup][ext]| = UQPSPACE-HARD_{SUB}^{SUP}EXT
                           \UQPSpaceC[sub][sup][ext] = UQPSPACE-COMPLETE_{SUB}^{SUP}EXT
                         • AQPSpace[sub][sup][ext] = AQPSPACE_{SUB}^{SUP}EXT
                           \verb|\AQPSpaceE[sub][sup][ext]| = AQPSPACE-EASY_{SUB}^{SUP}EXT
                           \verb|\AQPSpaceH[sub][sup][ext]| = AQPSPACE-HARD_{SUB}^{SUP}EXT
                           \verb|\AQPSpaceC[sub][sup][ext]| = \mathrm{AQPSPACE\text{-}COMPLETE}^{SUP}_{SUB}\mathrm{EXT}
                     1000 \defcomcls{QPSpace}
 \ExpTime, ...
                         • \text{ExpTime[sub][sup][ext]} = \text{EXPTIME}_{\text{SUB}}^{\text{SUP}} \text{EXT}
                           \verb|\ExpTimeE[sub][sup][ext]| = EXPTIME-EASY_{SUB}^{SUP}EXT
                           \texttt{ExpTimeH[sub][sup][ext]} = \texttt{ExpTime-HARD}^{\texttt{SUP}}_{\texttt{SUB}} \texttt{Ext}
                           \texttt{ExpTimeC[sub][sup][ext]} = \texttt{ExpTime-complete}^{\texttt{SUP}}_{\texttt{SUB}} \texttt{Ext}
                         • NExpTime[sub][sup][ext] = NEXPTIME_{SUB}^{SUP}EXT
                           \verb|\NExpTimeE[sub][sup][ext]| = NEXPTIME-EASY_{SUB}^{SUP}EXT
                           \NExpTimeH[sub][sup][ext] = NEXPTIME-HARD_{SUB}^{SUP}EXT
                           \NExpTimeC[sub][sup][ext] = NEXPTIME-COMPLETE_{SUB}^{SUP}EXT
                         • \UExpTime[sub][sup][ext] = UEXpTIME_{SUB}^{SUP}EXT
                           \UExpTimeE[sub][sup][ext] = UEXPTIME-EASY_{SUB}^{SUP}EXT
                           \UExpTimeH[sub][sup][ext] = UExpTIME-HARD_{SUB}^{SUP}EXT
                           \verb|\UExpTimeC[sub][sup][ext]| = UEXPTIME-COMPLETE^{SUP}_{SUR}EXT|
                         • \AExpTime[sub][sup][ext] = AExpTime_SUP_EXT
                           \texttt{AExpTimeE[sub][sup][ext]} = AEXPTIME-EASY_{SUB}^{SUP}EXT
                           \Delta ExpTimeH[sub][sup][ext] = AEXPTIME-HARD_{SUB}^{SUP}EXT
                           \verb|\AExpTimeC[sub][sup][ext]| = AEXPTIME-COMPLETE_{SUB}^{SUP}EXT
                     1001 \defcomcls{ExpTime}
                         • \ExpSpace[sub][sup][ext] = ExpSpace_{SUB}^{SUP}EXT
\ExpSpace, ...
                           \verb|\ExpSpaceE[sub][sup][ext]| = EXPSPACE-EASY_{SUB}^{SUP}EXT
                           \verb|\ExpSpaceH[sub][sup][ext]| = ExpSpace-Hard_{SUB}^{SUP}EXT
                           \ExpSpaceC[sub][sup][ext] = ExpSpace-CompleteSup_Ext
                         • \NExpSpace[sub][sup][ext] = NEXPSPACE_{SUB}^{SUP}EXT
                           \NExpSpaceE[sub][sup][ext] = NEXPSPACE-EASY_{SUB}^{SUP}EXT
                           \verb|\NExpSpaceH[sub][sup][ext]| = NEXPSPACE-HARD_{SUB}^{SUP}EXT
                           \NExpSpaceC[sub][sup][ext] = NEXpSpace-COMPLETE_{SUB}^{SUP}EXT
                         • \UExpSpace[sub][sup][ext] = UExpSpace_{SUB}^{SUP}EXT
                           \verb|\UExpSpaceE[sub][sup][ext]| = UEXPSPACE-EASY_{SUB}^{SUP}EXT
                           \verb|\UExpSpaceH[sub][sup][ext]| = UEXPSPACE-HARD_{SUB}^{SUP}EXT
                           \UExpSpaceC[sub][sup][ext] = UExpSpace-Complete_{SUB}^{SUP}EXT
                         \bullet \ \texttt{\AExpSpace[sub][sup][ext]} = AExpSpace[sub][sup][ext] = AExpSpace[sub][sup][ext]
                           \texttt{AExpSpaceE[sub][sup][ext]} = \text{AExpSpace-Easy}_{\text{SUB}}^{\text{SUP}} \text{EXT}
                           \verb|\AExpSpaceH[sub][sup][ext]| = AEXPSPACE-HARD_{SUB}^{SUP}EXT
                           \texttt{AExpSpaceC[sub][sup][ext]} = \text{AExpSpace-complete}_{\text{SUB}}^{\text{SUP}} \text{Ext}
```

1002 \defcomcls{ExpSpace}

• $AQPTime[sub][sup][ext] = AQPTIME_{SUB}^{SUP}EXT$

```
\PH
                                       • \PH[sub][sup][ext] = PH_{SUB}^{SUP}EXT
                                 1004 \defcomhrc{PH}
                                 1005 \fi
                                 1010 \ifgam@
                                 \SATG, ...
                                 1012 %% Satisfiability Games
                                 1013 \cmdtxtoparname{SATG}[Sat]
                                 1014
                                 1015 %% Validity Games
                                 1016 \cmdtxtoparname{VALG}[Val]
                                 1017
                                 1018 % Evaluation Games
                                 1019 \cmdtxtoparname{EVLG}[Evl]
                                 1020
                                 1021 %% Synthesis Games
                                 1022 \cmdtxtoparname{SYNG}[Syn]
                                 1023
                                 1024 %% Model-Checking Games
                                 1025 \cmdtxtoparname{MCG} [MC]
                                 1026
                                 1027 %% Ehrenfeucht-Fraisse Games
                                 1028 \cmdtxtoparname{EFG}[EF]
                                 \PlrSym, \OppSym
                                 1030 \newcommand{\plrsym}{E}
                                 1031 \cmdmthsym{Plr}[\plrsym]
                                 1032 \newcommand{\oppsym}{A}
                                 1033 \cmdmthsym{Opp}[\oppsym]
 \ArenaName, ... ...
                                 1034 \newcommand{\arenaname}{A}
                                 1035 \usrmthlatupp{Arena}{Name}{name} [\arenaname]
       \PosSet, ... ...
                                 1036 \newcommand{\possym}{v}
                                 1037 \newcommand{\posset}{Ps}
                                 1038 \cmdmthsetext{Pos}[\posset][\possym]
                                 1039 \cmdmthsymelm{ipos}[\possym_{I}]
                                 1040 \cmdmthsymelm{fpos}[\possym_{F}]
                                 1041 \cmdmthset{PPos}[\posset_{\PlrSym}]
                                 1042 \verb|\cmdmthsymelm{ppos}[\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\
                                 1043 \verb|\cmdmthset{OPos}[\posset_{\norm{Nosset}}]|
                                 1044 \cmdmthsymelm{opos}[\possym_{\0ppSym}]
                \PlrFun ...
                                 1045 \newcommand{\plrfun}{pl}
                                 1046 \cmdmthfun{plr}[\plrfun]
                \MovRel
                                 1047 \newcommand{\movrel}{Mv}
                                 1048 \cmdmthrel{Mov}[\movrel]
```

```
\GameName, ... ...
                                               1049 \mbox{ \newcommand{\gamename}{\Game}}
                                               1050 \ \tt [Name] \{name] [name] \ \tt [Name] [name] [name] \ \tt 
                        \WinSet
                                               1051 \newcommand{\winset}{Wn}
                                               1052 \mbox{ \cmdmthset{Win}[\winset]}
  \ObsSet, \obsFun
                                               1053 \newcommand{\obsset}{Ob}
                                               1054 \cmdmthset{Obs}[\obsset]
                                               1055 \cmdmthfun{obs}
                                               \PthSet, \pthFun
                                               1057 \newcommand{\pthsym}{\pi}
                                               1058 \newcommand{\pthset}{Pth}
                                               1059 \cmdmthsetext{Pth}[\pthset][\pthsym]
                                               1060 \cmdmthfun{pth}
            \HstSet, ...
                                              1061 \newcommand{\hstsym}{\rho}
                                               1062 \mbox{ \newcommand{\hstset}{Hst}}
                                               1063 \cmdmthsetext{Hst}[\hstset][\hstsym]
                                               1064 \cmdmthset{PHst}[\hstset_{\PlrSym}]
                                               1065 \cmdmthsymelm{phst}[\hstsym_{\PlrSym}]
                                               1066 \cmdmthset{OHst}[\hstset_{\OppSym}]
                                               1067 \verb|\cmdmthsymelm{ohst}[\hstsym_{\coloredge m}]
                                               1068 \cmdmthfun{hst}
\PlaySet,\playFun
                                               1069 \newcommand{\playsym}{\pi}
                                               1070 \newcommand{\playset}{Play}
                                               1071 \cmdmthsetext{Play}[\playset][\playsym]
                                               1072 \cmdmthfun{play}
            \StrSet, ...
                                              1073 \newcommand{\strsym}{\sigma}
                                              1074 \newcommand{\strset}{Str}
                                               1075 \verb|\cmdmthsetext{Str}| [\verb|\strset|] [\|\strsym|]
                                               1076 \cmdmthset{PStr}[\strset_{\PlrSym}]
                                               1077 \cmdmthsymelm{pstr}[\strsym_{\PlrSym}]
                                               1078 \verb|\cmdmthset{OStr}[\strset_{\oppSym}]|
                                               1079 \verb|\cmdmthsymelm{ostr}[\strsym_{\colored{OppSym}}]
  \PrfSet, \prfFun
                                               1080 \newcommand{\prfsym}{\xi}
                                               1081 \newcommand{\prfset}{Prf}
                                               1082 \cmdmthsetext{Prf}[\prfset][\prfsym]
  \preFun, \sucFun
                                               1083 \newcommand{\prefun}{pre}
                                               1084 \cmdmthoargfun{pre}[\prefun]
                                               1085 \newcommand{\sucfun}{suc}
                                               1086 \cmdmthoargfun{suc}[\sucfun]
  \entFun, \escFun
                                               1087 \newcommand{\entfun}{ent}
                                               1088 \cmdmthoargfun{ent}[\entfun]
                                               1089 \mbox{ \newcommand{\escfun}{esc}}
                                               1090 \cmdmthoargfun{esc}[\escfun]
```

```
\intFun, \outFun ...
               1091 \newcommand{\left\{ \inf \right\}}
               1092 \cmdmthoargfun{int}[\intfun]
               1093 \mbox{ \newcommand{\outfun}{out}}
               1094 \verb|\cmdmthoargfun{out}| [\verb|\outfun|]|
\atrFun, \rchFun ...
               1095 \newcommand{\atrfun}{atr}
               1096 \cmdmthoargfun{atr}[\atrfun]
               1097 \newcommand{\rchfun}{rch}
               1098 \cmdmthoargfun{rch}[\rchfun]
      \liftFun ...
               1099 \newcommand{\liftfun}{lift}
               1100 \cmdmthoargfun{lift}[\liftfun]
       \solFun ...
              1101 \newcommand{\solfun}{sol}
               1102 \cmdmthoargfun{sol}[\solfun]
               \BG, ... ...
              1104 %% Buchi Games
              1105 \cmdtxtoparname{BG}
               1106
               1107 %% Co-Buchi Games
               1108 \cmdtxtoparname{CG}
               1110 %% Parity Games
               1111 \cmdtxtoparname{PG}
               1112
               1113 %% Rabin Games
               1114 \cmdtxtoparname{RG}
               1116 %% Streett Games
               1117 \cmdtxtoparname{SG}
               1118
               1119 %% Muller Games
               1120 \cmdtxtoparname{MG}
               \EvnSym, \OddSym
               1122 \mbox{ } \mbox{newcommand{\evnsym}{0}}
               1123 \cmdmthsym{Evn} [\evnsym]
               1124 \mbox{ } \mbox{newcommand{\oddsym}{1}}
               1125 \cmdmthsym{Odd}[\oddsym]
\PrtSet, \prtFun ...
               1126 \newcommand{\prtsym}{p}
               1127 \newcommand{\prtset}{Pr}
               1128 \cmdmthsetext{Prt}[\prtset][\prtsym]
               1129 \cmdmthfun{prt}[pr]
               \EG, ... ...
               1132 %% Energy Games
```

1133 \cmdtxtoparname{EG}

```
1134
                                 1135 %% Mean-Payoff Games
                                 1136 \cmdtxtoparname{MPG}
                                 1138 %% Discounted-Payoff Games
                                 1139 \cmdtxtoparname{DPG}
                                 \MaxSym, \MinSym
                                 1141 \newcommand{\maxsym}{\oplus}
                                 1142 \cmdmthsym{Max}[\maxsym]
                                 1143 \newcommand{\minsym}{\boxminus}
                                 1144 \cmdmthsym{Min}[\minsym]
\WghSet, \wghFun
                                1145 \mbox{ } \mbox{newcommand{\wghsym}{w}}
                                 1146 \newcommand{\wghset}{Wg}
                                 1147 \cmdmthsetext{Wgh} [\wghset] [\wghsym]
                                 1148 \cmdmthfun{wgh} [wg]
                                 1150 \fi
                                 1155 \iflog@
                                 \BF, \QBF, ... ...
                                1157 % Boolean Formulae
                                1158 \cmdtxtoparname{BF}
                                1160 % Quantified Boolean Formulae
                                1161 \DeclareRobustCommand{\QBF}
                                          {\{\text{txtname}\{Q\}\}\setminus BF\}}
                                 1163 \DeclareRobustCommand{\EBF}
                                          {\ensuremath{\exists}\BF}
                                 1165 \DeclareRobustCommand{\UBF}
                                          {\ensuremath{\forall}\BF}
                                 \LogSig, ... ...
                                 1168 \mbox{ \newcommand{\logsig}{L}}
                                1169 \usrmthlatupp{Log}{Sig}{sig}[\logsig]
              \Tt, \Ff ...
                                 1170 \mbox{ } \mbox
                                 1171 \usrmth{Tt}{}{sym}[\ttsym]
                                 1172 \mbox{newcommand{\ffsym}{\bot}}
                                1173 \usrmth{Ff}{}{sym}[\ffsym]
       \LNeg, \LNot ...
                                 1174 \newcommand{\lnegsym}{\neg}
                                 1175 \usrmth{LNeg}{}{luop}[\lnegsym]
                                 1176 \newcommand{\lnotsym}{\sim}
                                 1177 \usrmth{LNot}{}{luop}[\lnotsym]
```

```
\LCon, \LDis ...
                                            1178 \mbox{newcommand{\lconsym}{\land}}
                                            1179 \usrmth{LCon}{}{lbop}[\lconsym]
                                            1180 \mbox{ }\mbox{\command{\ldissym}{\lor}}
                                            1181 \usrmth{LDis}{}{lbop}[\ldissym]
         \LImp, \LCoi
                                            1182 \newcommand{\limpsym}{\leftrightarrow}
                                            1183 \usrmth{LImp}{}{lbop}[\limpsym]
                                            1184 \newcommand{\lcoisym}{\rightarrow}
                                            1185 \usrmth{LCoi}{}{lbop}[\lcoisym]
         \LExs, \LAll ...
                                           1186 \newcommand{\lexssym}{\exists}
                                            1187 \usrmth{LExs}{}{luop}[\lexssym]
                                            1188 \newcommand{\lallsym}{\forall}
                                            1189 \usrmth{LAll}{}{luop}[\lallsym]
            \APSet, ... ...
                                           1190 \newcommand{\apsym}{p}
                                            1191 \newcommand{\apset}{AP}
                                            1192 \cmdmthsetext{AP}[\apset][\apsym]
                                            1193 \cmdmthfun{ap}\usrmth{ap}{}{argfun}
                             \sub ...
                                            1194 \usrmth{sub}{}{argfun}
\Cnt, \Qnt, \Sym ...
                                            1195 \usrmth{Cnt}{}{sym}[C]
                                            1196 \usrmth{Qnt}{}{sym}[Q]
                                            1197 \space{2mm} 1197 \space{2mm} {\rm Sym} {\rm sym} [\odot]
               \QAE, \QEA ...
                                            1198 \usrmth{QAE}{}{sym}[\forall\exists]
                                            1199 \usrmth{QEA}{}{sym}[\exists\forall]
         \QntSet, ... ...
                                            1200 \mbox{ } \mbox{newcommand{\qntsym}{\wp}}
                                            1201 \newcommand{\qntset}{Qn}
                                            1202 \cmdmthsetext{Qnt} [\qntset] [\qntsym]
       \free, \bound ...
                                            1204 \mbox{ \normalfooth bound}{{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfooth}{\normalfo
               \dep, \alt ...
                                            1205 \usrmth{dep}{}{argfun}
                                            1206 \usrmth{alt}{}{argfun}
  \cnf, \dnf, ... ...
                                           1207 \cmdtxtabr{cnf}
                                            1208 \cmdtxtabr{dnf}
                                            1209 \cmdtxtabr{pnf}
                                            1210 \cmdtxtabr{nnf}
                                            \LogStr, ... ...
                                            1212 \neq \{L\}
                                            1213 \verb|\usrmth|| a tupp{Log}{Str}{str}[\logstr]
```

```
\ValSet, ... ...
             1214 \newcommand{\valsym}{\xi}
             1215 \newcommand{\valset}{Val}
             1216 \cmdmthsetext{Val}[\valset][\valsym]
\AsgSet, ... ...
             1217 \newcommand{\asgsym}{\chi}
             1218 \newcommand{\asgset}{Asg}
             1219 \cmdmthsetext{Asg}[\asgset][\asgsym]
             \FOL, ... ...
             1221 % First-Order Logic
             1222 \cmdtxtoparname{FOL}[Fol]
             1224 % Monadic First-Order Logic
             1225 \DeclareRobustCommand{\MFOL}
             1226 \quad \{\{\text{txtname}\{M\}\}\}\
             \VarSig, ... ...
             1228 \newcommand{\varsig}{V}
             1229 \usrmthlatupp{Var}{Sig}{sig}[\varsig]
             1230 \newcommand{\varsym}{x}
             1231 \newcommand{\varset}{Vr}
             1232 \cmdmthsetext{Var}[\varset][\varsym]
             1233 \usrmth{var}{}{argfun}[vr]
             1234 \cmdmthfun{dim}[dm]\usrmth{dim}{}{argfun}[dm]
\ConSig, ... ...
             1235 \newcommand{\consig}{C}
             1236 \usrmthlatupp{Con}{Sig}{sig}[\consig]
             1237 \rightarrow \{c\}
             1238 \newcommand{\conset}{Cn}
             1239 \cmdmthsetext{Con}[\conset][\consym]
             1240 \usrmth{con}{}{argfun}[cn]
\FunSig, ... ...
             1241 \newcommand{\funsig}{F}
             1242 \usrmthlatupp{Fun}{Sig}{sig}[\funsig]
             1243 \mbox{ } \mbox{newcommand{\hrunsym}{f}}
             1244 \newcommand{\funset}{Fn}
             1245 \cmdmthsetext{Fun}[\funset][\funsym]
             1246 \usrmth{fun}{}{argfun}[fn]
             1247 \cmdmthfun{art}[ar]\usrmth{art}{}{argfun}[ar]
\TerSig, ... ...
             1248 \newcommand{\tersig}{T}
             1249 \usrmthlatupp{Ter}{Sig}{sig}[\tersig]
             1250 \mbox{ } \mbox{newcommand{\tersym}{t}}
             1251 \newcommand{\terset}{Tr}
             1252 \cmdmthsetext{Ter}[\terset][\tersym]
             1253 \usrmth{ter}{}{argfun}
\RelSig, ... ...
             1254 \mbox{ } \mbox{newcommand{\relsig}{R}}
             1255 \usrmthlatupp{Rel}{Sig}{sig}[\relsig]
             1256 \mbox{ } \mbox{newcommand{\relsym}{r}}
             1257 \newcommand{\relset}{Rl}
             1258 \cmdmthsetext{Rel}[\relset][\relsym]
             1259 \usrmth{rel}{}{argfun}[rl]
```

```
\skm ...
                                 1260 \usrmth{skm}{}{argfun}
                                 \ConStr, ... ...
                                 1262 \mbox{ newcommand{\constr}{C}}
                                 1263 \usrmthlatupp{Con}{Str}{str}[\constr]
    \FunStr, ... ...
                                 1264 \mbox{ } \mbox
                                 1265 \usrmthlatupp{Fun}{Str}{str}[\funstr]
    \TerStr, ... ...
                                 1266 \newcommand{\terstr}{T}
                                 1267 \usrmthlatupp{Ter}{Str}{str}[\terstr]
   \verb|\RelStr, ... ...|
                                 1268 \newcommand{\relstr}{R}
                                 1269 \usrmthlatupp{Rel}{Str}{str}[\relstr]
                                 \DF, \IF, ...
                                 1271 % Dependence-Friendly Logic
                                 1272 \cmdtxtoparname{DF}
                                 1273
                                 1274 % Independence-Friendly Logic
                                 1275 \cmdtxtoparname{IF}
                                 1277 % Dependence/Independence-Friendly Logic
                                 1278 \cmdtxtoparname{DIF}
                                 1280 % Dependence Logic
                                 1281 \cmdtxtoparname{DL}
                                 1283 % Team Logic
                                 1284 \cmdtxtoparname{TL}
                                 1286 % Alternating Dependence-Friendly Logic
                                 1287 \cmdtxtoparname{ADF}
                                 1289 % Alternating Independence-Friendly Logic
                                 1290 \cmdtxtoparname{AIF}
                                 1292 % Alternating Dependence/Independence-Friendly Logic
                                 1293 \cmdtxtoparname{ADIF}
                                 \LEExs, \LAA11 ...
                                 1295 \newcommand{\leexssym}{\Sigma}
                                 1296 \usrmth{LEExs}{}{luop}[\leexssym]
                                 1297 \newcommand{\laallsym}{\Pi}
                                 1298 \usrmth{LAAll}{}{luop}[\laallsym]
```

```
\SOL, ... ...
          1301 % Second-Order Logic
          1302 \cmdtxtoparname{SOL}[Sol]
          1304 % Monadic Second-Order Logic
          1305 \DeclareRobustCommand{\MSOL}
             {{\txtname{M}}\SOL}
          \FVarSet, ... ...
          1308 \mbox{ \newcommand{\fvarsym}{x}}
          1309 \newcommand{\fvarset}{FVr}
          1310 \cmdmthsetext{FVar}[\fvarset][\fvarsym]
\SVarSet, ... ...
          1311 \newcommand{\svarsym}{X}
          1312 \newcommand{\svarset}{SVr}
          1313 \cmdmthsetext{SVar}[\svarset][\svarsym]
          \TL, \PL, ... ...
          1316 % Tree Logic
          1317 \cmdtxtoparname{TL}
          1319 % Monadic Tree Logic
          1320 \DeclareRobustCommand{\MTL}
          1321
              {\{\text{txtname}\{M\}}\TL\}
          1322
          1323 % Path Logic
          1324 \cmdtxtoparname{PL}
          1326 % Monadic Path Logic
          1327 \DeclareRobustCommand{\MPL}
              {\{\text{txtname}\{M\}}\PL\}
          \ML, \QML, ... ...
          1332 % Modal Logic
          1333 \cmdtxtoparname{ML}
          1335 % Quantified Modal Logic
          1336 \DeclareRobustCommand{\QML}
              {\{\text{txtname}\{Q\}\}\}ML}
          1338 \DeclareRobustCommand{\EML}
          1339 {\ensuremath{\exists}\ML}
          1340 \DeclareRobustCommand{\UML}
          1341 {\ensuremath{\forall}\ML}
          \Opr ...
          1343 \usrmth{Opr}{}{sym}[Op]
```

```
\DMod, \BMod ...
             1344 \usrmth{DMod}{}{sym}[\Diamond]
             1345 \operatorname{Mod}{sym}[\Box]
    \Exs, \All ...
             1346 \DeclareRobustCommand{\Exs}[1]
                 {\mth{\defval{\argmid{\langle}{#1}{\rangle}}}\DMod}}}
             1348 \DeclareRobustCommand{\All}[1]
             1349 {\bf \{\hat \{\hat \}}_{1}}{\bf \{\hat \}}
             \KrpStr, ... ...
             1351 \newcommand{\krpstr}{K}
             1352 \usrmthlatupp{Krp}{Str}{str}[\krpstr]
   \WrlSet, ...
             1353 \newcommand{\wrlsym}{w}
             1354 \newcommand{\wrlset}{W}
             1355 \cmdmthsetext{Wrl}[\wrlset][\wrlsym]
             1356 \cmdmthsymelm{iwrl}[\wrlsym_{I}]
\AccRel, \TrnRel
             1357 \mbox{ \newcommand{\accsym}{R}}
             1358 \cmdmthrel{Acc}[\accsym]
             1359 \cmdmthrel{Trn}[\accsym]
      \labFun ...
             1360 \newcommand{\labsym}{\lambda}
             1361 \cmdmthfun{lab}[\labsym]
\PthSet, \pthFun
             1362 \providecommand{\phi}{\phi}
             1363 \providecommand{\phithset}{Pth}
             1364 \mbox{ \cmdmthsetext{Pth} [\pthset] [\pthsym]}
             1365 \cmdmthfun{pth}
             \MC, \QMC, ...
             1367 % Mu Calculus
             1368 \cmdtxtoparname{MC}[\ensuremath{\mu}-Calculus]
             1370 % Quantified Modal Logic
             1371 \DeclareRobustCommand{\QMC}
             1372 \quad \{\{\text{txtname}\{Q\}\}\}\
             1373 \DeclareRobustCommand{\EMC}
             1374 {\ensuremath{\exists}\MC}
             1375 \DeclareRobustCommand{\UMC}
                 {\ensuremath{\forall}\MC}
```

```
1380 % Propositional Temporal Logic
               1381 \cmdtxtoparname{PTL}
               1383 % Quantified Propositional Temporal Logic
               1384 \DeclareRobustCommand{\QPTL}
                   {\{\text{txtname}\{Q\}}\
               1386 \DeclareRobustCommand{\EPTL}
               1387
                    {\ensuremath{\exists}\PTL}
               1388 \DeclareRobustCommand{\UPTL}
                    {\ensuremath{\forall}\PTL}
               1391 % Linear Temporal Logic
               1392 \verb|\cmdtxtoparname{LTL}|
               1394\ \% Quantified Linear Temporal Logic
               1395 \DeclareRobustCommand{\QLTL}
               1396 \{\{\text{txtname}\{Q\}\}\}\
               1397 \DeclareRobustCommand{\ELTL}
               1398 {\ensuremath{\exists}\LTL}
               1399 \DeclareRobustCommand{\ULTL}
                   {\ensuremath{\forall}\LTL}
               \X, ... ...
               1402 \operatorname{X}{{\sym}[X\,]}
               1403 \operatorname{ff}{sym}[F\,]
               1404 \usrmth{G}{}{sym}[G\,]
               1405 \operatorname{U}{sym}[\,U\,]
               1406 \usrmth{R}{}{sym}[\,R\,]
       \Y, ... ...
               1407 \usrmth{Y}{}{sym}[G\,]
               1408 \t P}{sym}[P\,]\t SavePilcrow\P
               1409 \verb|\wsrmth{H}{{}}| flh,] \le \Coulomble Acute H
               1410 \usrmth{S}{}{sym}[\,S\,]\let\SaveSectionSymbol\S
               1411 \usrmth{B}{}{sym}[\,B\,]
               \PDL, \CTL, ... ...
               1415 % Propositional Dynamic Logic
               1416 \cmdtxtoparname{PDL}
               1418 % Computation Tree Logic
               1419 \cmdtxtoparname{CTL}
               1421 % Quantified Computation Tree Logic
               1422 \verb|\DeclareRobustCommand{\QCTL}|
                   {\{\text{txtname}\{Q\}\}\CTL}
               1424 \DeclareRobustCommand{\ECTL}
               1425 {\ensuremath{\exists}\CTL}
               1426 \DeclareRobustCommand{\UCTL}
                    {\ensuremath{\forall}\CTL}
               1427
               1429 % Improved Computation Tree Logic
               1430 \cmdtxtoparname{CTLP}[CTL$^{+}$]
               1431
```

\PTL, \LTL,

```
1432 % Quantified Improved Computation Tree Logic
          1433 \DeclareRobustCommand{\QCTLP}
          1434 {\{\text{txtname}\{Q\}\}\}\
          1435 \DeclareRobustCommand{\ECTLP}
              {\ensuremath{\exists}\CTLP}
         1437 \DeclareRobustCommand{\UCTLP}
              {\ensuremath{\forall}\CTLP}
          1438
          1440 % Full Computation Tree Logic
          1441 \cmdtxtoparname{CTLS}[CTL*]
          1443 % Quantified Full Computation Tree Logic
          1444 \DeclareRobustCommand{\QCTLS}
               {{\txtname{Q}}\CTLS}
          1446 \DeclareRobustCommand{\ECTLS}
               {\ensuremath{\exists}\CTLS}
          1448 \DeclareRobustCommand{\UCTLS}
              {\ensuremath{\forall}\CTLS}
          \E, \A ...
          1451 \usrmth{E}{}{sym}
          1452 \operatorname{A}{{A}}{sym}
          \ATL, ...
         1455 % Alternating Temporal Logic
         1456 \cmdtxtoparname{ATL}
         1458 % Quantified Alternating Temporal Logic
         1459 \DeclareRobustCommand{\QATL}
              {\{\text{txtname}\{Q\}\}\setminus ATL\}}
         1460
          1461 \DeclareRobustCommand{\EATL}
              {\ensuremath{\exists}\ATL}
          1463 \DeclareRobustCommand{\UATL}
          1464
               {\ensuremath{\forall}\ATL}
          1466 % Improved Alternating Temporal Logic
          1467 \cmdtxtoparname{ATLP}[ATL$^{+}$]
          1469 % Quantified Improved Alternating Temporal Logic
          1470 \DeclareRobustCommand{\QATLP}
         1471 \{\{\text{txtname}\{Q\}\}\} ATLP\}
          1472 \DeclareRobustCommand{\EATLP}
          1473 {\ensuremath{\exists}\ATLP}
          1474 \DeclareRobustCommand{\UATLP}
               {\ensuremath{\forall}\ATLP}
          1477 % Full Alternating Temporal Logic
          1478 \cmdtxtoparname{ATLS}[ATL*]
          1480 % Quantified Full Alternating Temporal Logic
          1481 \DeclareRobustCommand{\QATLS}
               {{\txtname{Q}}\ATLS}
          1483 \DeclareRobustCommand{\EATLS}
               {\ensuremath{\exists}\ATLS}
          1485 \DeclareRobustCommand{\UATLS}
              {\ensuremath{\forall}\ATLS}
```

```
\EExs, \AAll ...
                            1488 \DeclareRobustCommand{\EExs}[1]
                            1490 \DeclareRobustCommand{\AAll}[1]
                                       {\bf \{\defval\{\#1\}\{\emptyset\}\}\{\right]\}}\}
                            \CGS ...
                            1493 \cmdtxtname{CGS}
\CGSStr, ... ...
                            1494 \mbox{ } \mbox{cgsstr}{G}
                            1495 \usrmthlatupp{CGS}{Str}{str}[\cgsstr]
\AgnSet, ... ...
                            1496 \mbox{ } \mbox{newcommand{\agnsym}{a}}
                            1497 \mbox{ \newcommand{\agnset}{Ag}}
                           1498 \cmdmthsetext{Agn}[\agnset][\agnsym]
\PosSet, ... ...
                           1499 \providecommand{\possym}{v}
                            1500 \providecommand{\posset}{Ps}
                            1501 \mbox{ \cmdmthsetext{Pos}[\posset] [\possym]}
                            1502 \verb|\cmdmthsymelm{ipos}[\possym_{I}]|
                            1503 \cmdmthsymelm{fpos}[\possym_{F}]
                            1504 \verb|\cmdmthset{PPos}[\posset_{\PlrSym}]|
                            1505 \verb|\cmdmthsymelm{ppos}[\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\possym_{\
                            1506 \cmdmthset{OPos}[\posset_{\OppSym}]
                            1507 \cmdmthsymelm{opos}[\possym_{\OppSym}]
\SttSet, ... ...
                            1508 \newcommand{\sttsym}{s}
                            1509 \mbox{ \newcommand{\sttset}{St}}
                            1510 \cmdmthsetext{Stt}[\sttset][\sttsym]
                            1511 \cmdmthset{IStt}[\sttset_{I}]
                            1512 \cmdmthsymelm{istt}[\sttsym_{I}]
                            1513 \cmdmthset{FStt}[\sttset_{F}]
                            1514 \cmdmthsymelm{fstt}[\sttsym_{F}]
\ActSet, ... ...
                           1515 \newcommand{\actsym}{c}
                           1516 \newcommand{\actset}{Ac}
                           1517 \cmdmthsetext{Act}[\actset][\actsym]
\DecSet, ... ...
                            1518 \mbox{ \newcommand{\decsym}{d}}
                            1519 \newcommand{\decset}{Dc}
                            1520 \verb|\cmdmthsetext{Dec}| [\verb|\decset|]| [\verb|\decsym|]|
          \movFun ...
                            1521 \newcommand{\movsym}{\tau}
                            1522 \cmdmthfun{mov} [\movsym]
\HstSet, ...
                            1523 \providecommand{\hstsym}{\rho}
                            1524 \providecommand{\hstset}{Hst}
                            1525 \cmdmthsetext{Hst}[\hstset][\hstsym]
                            1526 \cmdmthset{PHst}[\hstset_{\PlrSym}]
                            1527 \cmdmthsymelm{phst}[\hstsym_{\PlrSym}]
                            1528 \cmdmthset{OHst}[\hstset_{\OppSym}]
                            1529 \cmdmthsymelm{ohst}[\hstsym_{\OppSym}]
                            1530 \cmdmthfun{hst}
```

```
\PlaySet,\playFun
                  1531 \providecommand{\playsym}{\pi}
                  1532 \providecommand{\playset}{Play}
                  1533 \cmdmthsetext{Play}[\playset][\playsym]
                  1534 \cmdmthfun{play}
    \StrSet, ...
                  1535 \providecommand{\strsym}{\sigma}
                  1536 \providecommand{\strset}{Str}
                  1537 \cmdmthsetext{Str}[\strset][\strsym]
                  1538 \cmdmthset{PStr}[\strset_{\PlrSym}]
                  1539 \cmdmthsymelm{pstr}[\strsym_{\PlrSym}]
                  1540 \cmdmthset{OStr}[\strset_{\OppSym}]
                  1541 \cmdmthsymelm{ostr}[\strsym_{\OppSym}]
\PrfSet, \prfFun
                  1542 \providecommand{\prfsym}{\xi}
                  1543 \providecommand{\prfset}{Prf}
                  1544 \cmdmthsetext{Prf}[\prfset][\prfsym]
                  \SL, ... ...
                  1546 % Strategy Logic
                  1547 \cmdtxtoparname{SL}
                  1549 \DeclareRobustCommand{\ESL}
                  1550 {\ensuremath{\exists}\SL}
                  1551 \DeclareRobustCommand{\USL}
                  1552 {\ensuremath{\forall}\SL}
                  1553
                  1554 \DeclareRobustCommand{\FSL}
                       {\{\text{txtname}\{F\}\}\SL\}}
                  1555
                  1556
                  1557 \DeclareRobustCommand{\EFSL}
                       {\ensuremath{\exists}\FSL}
                  1559 \DeclareRobustCommand{\UFSL}
                        {\ensuremath{\forall}\FSL}
                  1561
                  1562 % One-Goal Strategy Logic
                  1563 \DeclareRobustCommandx{\OGSL}[3][1=, 2=, 3=]
                        {\SL[#1][#2][1g\arglef{,}{#3}]}
                  1564
                  1565
                  1566 \DeclareRobustCommand{\EOGSL}
                        {\ensuremath{\exists}\OGSL}
                  1568 \DeclareRobustCommand{\UOGSL}
                        {\ensuremath{\forall}\OGSL}
                  1570
                  1571 \DeclareRobustCommand{\FOGSL}
                  1572
                        {{\txtname{F}}\OGSL}
                  1573
                  1574 \DeclareRobustCommand{\EFOGSL}
                        {\ensuremath{\exists}\FOGSL}
                  1576 \DeclareRobustCommand{\UFOGSL}
                  1577
                        {\ensuremath{\forall}\FOGSL}
                  1579 % Conjunctive-Goal Strategy Logic
                  1580 \DeclareRobustCommandx{\CGSL}[3][1=, 2=, 3=]
                  1581
                        {\SL[#1][#2][cg\arglef{,}{#3}]}
                  1583 \DeclareRobustCommand{\ECGSL}
                  1584 {\ensuremath{\exists}\CGSL}
                  1585 \DeclareRobustCommand{\UCGSL}
```

```
{\ensuremath{\forall}\CGSL}
1586
1588 \DeclareRobustCommand{\FCGSL}
1589
      {\{\text{xtname}\{F\}\}\times GSL\}}
1590
1591 \DeclareRobustCommand{\EFCGSL}
     {\ensuremath{\exists}\FCGSL}
1593 \DeclareRobustCommand{\UFCGSL}
      {\ensuremath{\forall}\FCGSL}
1594
1596 % Disjunctive-Goal Strategy Logic
1597 \DeclareRobustCommandx{\DGSL}[3][1=, 2=, 3=]
      {\SL[#1][#2][dg\arglef{,}{#3}]}
1599
1600 \DeclareRobustCommand{\EDGSL}
1601
      {\ensuremath{\exists}\DGSL}
1602 \DeclareRobustCommand{\UDGSL}
      {\ensuremath{\forall}\DGSL}
1603
1604
1605 \DeclareRobustCommand{\FDGSL}
      {\{ \text{xtname}\{F\} \} xGSL \}}
1607
1608 \DeclareRobustCommand{\EFDGSL}
1609
      {\ensuremath{\exists}\FDGSL}
1610 \DeclareRobustCommand{\UFDGSL}
      {\ensuremath{\forall}\FDGSL}
1611
1612
1613 % Alternating-Goal Strategy Logic
1614 \DeclareRobustCommandx{\AGSL}[3][1=, 2=, 3=]
      {\SL[#1][#2][ag\arglef{,}{#3}]}
1616
1617 \DeclareRobustCommand{\EAGSL}
      {\ensuremath{\exists}\AGSL}
1619 \DeclareRobustCommand{\UAGSL}
1620
      {\ensuremath{\forall}\AGSL}
1621
1622 \DeclareRobustCommand{\FAGSL}
      {\{ \text{xtname}\{F\} \} \times GSL \}}
1623
1624
1625 \DeclareRobustCommand{\EFAGSL}
      {\ensuremath{\exists}\FAGSL}
1627 \DeclareRobustCommand{\UFAGSL}
      {\ensuremath{\forall}\FAGSL}
1630 \% Extended-Goal Strategy Logic
1631 \DeclareRobustCommandx{\EGSL}[3][1=, 2=, 3=]
1632
      {\SL[#1][#2][eg\arglef{,}{#3}]}
1633
1634 \DeclareRobustCommand{\EEGSL}
     {\ensuremath{\exists}\EGSL}
1636 \DeclareRobustCommand{\UEGSL}
1637
      {\ensuremath{\forall}\EGSL}
1639 \DeclareRobustCommand{\FEGSL}
1640
      {\{\text{xtname}\{F\}\}\times GSL\}}
1641
1642 \DeclareRobustCommand{\EFEGSL}
      {\ensuremath{\exists}\FEGSL}
1644 \DeclareRobustCommand{\UFEGSL}
1645
      {\ensuremath{\forall}\FEGSL}
1646
1647 % Boolean-Goal Strategy Logic
1648 \DeclareRobustCommandx{\BGSL}[3][1=, 2=, 3=]
```

```
{\SL[#1][#2][bg\arglef{,}{#3}]}
             1650
             1651 \DeclareRobustCommand{\EBGSL}
             1652
                   {\ensuremath{\exists}\BGSL}
             1653 \DeclareRobustCommand{\UBGSL}
                   {\ensuremath{\forall}\BGSL}
             1654
             1655
             1656 \DeclareRobustCommand{\FBGSL}
                   {\{ \text{xtname} \{F\} \} \times GSL \}}
             1657
             1658
             1659 \DeclareRobustCommand{\EFBGSL}
                   {\ensuremath{\exists}\FBGSL}
             1661 \DeclareRobustCommand{\UFBGSL}
             1662
                   {\ensuremath{\forall}\FBGSL}
             1663
             1664\ \% Nested-Goal Strategy Logic
             1665 \DeclareRobustCommandx{\NGSL}[3][1=, 2=, 3=]
                   {\SL[#1][#2][ng\arglef{,}{#3}]}
             1666
             1667
             1668 \DeclareRobustCommand{\ENGSL}
                   {\ensuremath{\exists}\NGSL}
             1670 \DeclareRobustCommand{\UNGSL}
             1671
                   {\ensuremath{\forall}\NGSL}
             1672
             1673 \DeclareRobustCommand{\FNGSL}
                   {\{\text{xtname}\{F\}\}\times GSL\}}
             1674
             1675
             1676 \DeclareRobustCommand{\EFNGSL}
                   {\ensuremath{\exists}\FNGSL}
             1678 \DeclareRobustCommand{\UFNGSL}
                   {\ensuremath{\forall}\FNGSL}
             1679
             1681 % Undefined-Goal Strategy Logic
             1682 \DeclareRobustCommandx{\XGSL}[3][1=, 2=, 3=]
             1683
                   {\SL[#1][#2][xg\arglef{,}{#3}]}
             1684
             1685 \DeclareRobustCommand{\EXGSL}
                   {\ensuremath{\exists}\XGSL}
             1686
             1687 \DeclareRobustCommand{\UXGSL}
                   {\ensuremath{\forall}\XGSL}
             1688
             1689
             1690 \DeclareRobustCommand{\FXGSL}
             1691
                   {\{ \text{xtname}\{F\} \} xGSL \}}
             1692
             1693 \DeclareRobustCommand{\EFXGSL}
                  {\ensuremath{\exists}\FXGSL}
             1694
             1695 \DeclareRobustCommand{\UFXGSL}
                   {\ensuremath{\forall}\FXGSL}
             \BndSet, ...
             1698 \newcommand{\bndsym}{\flat}
             1699 \newcommand{\bndset}{Bn}
             1700 \cmdmthsetext{Bnd}[\bndset][\bndsym]
             1701 \usrmth{bnd}{}{argfun}
       \psn ...
             1702 \usrmth{psn}{}{argfun}
             \nxtFun
             1704 \newcommand{\nxtfun}{nxt}
             1705 \cmdmthfun{nxt} [\nxtfun]
```

1649

```
1706 \fi
                                                        1711 \ifaut@
                                                        \DWA, ... ...
                                                       1713 \cmdtxtoparname{DWA}\cmdtxtoparname{AWA}\cmdtxtoparname{UWA}\cmdtxtoparname{AWA}
                                                        1715 \verb|\cmdtxtoparname{DFW}\\ cmdtxtoparname{UFW}\\ cmdtxtoparname{UFW}\\ cmdtxtoparname{AFW}\\ and become for the context of th
                                                        1716 \verb|\cmdtxtoparname{DBW}\cmdtxtoparname{MBW}\cmdtxtoparname{ABW}|
                                                        1717 \cmdtxtoparname{DCW}\cmdtxtoparname{ACW}\cmdtxtoparname{UCW}\cmdtxtoparname{ACW}
                                                        1718 \cmdtxtoparname{DPW}\cmdtxtoparname{MPW}\cmdtxtoparname{UPW}\cmdtxtoparname{APW}
                                                        1719 \verb|\cmdtxtoparname{DRW}\cmdtxtoparname{URW}\cmdtxtoparname{ARW}|
                                                        1720 \verb|\cmdtxtoparname{DSW}\cmdtxtoparname{USW}\cmdtxtoparname{ASW}| Cmdtxtoparname{ASW}| C
                                                        1721 \verb|\cmdtxtoparname{DMW}\cmdtxtoparname{MW}| cmdtxtoparname{AMW}| c
\GFG, \PD, ... ...
                                                        1722 \cmdtxtoparname{GFG}
                                                        1724 \cmdtxtoparname{PD}
                                                        1725
                                                        1726 %% ...
                                                        \AutName, ... ...
                                                        1728 \mbox{ \newcommand{\autname}{A}}
                                                        1729 \usrmthlatupp{Aut}{Name}{name}[\autname]
                                                        1730 \newcommand{\autset}{Aut}
                                                        1731 \cmdmthset{Aut}[\autset]
                     \WAutSet ...
                                                        1732 \newcommand{\wautset}{WAut}
                                                        1733 \cmdmthset{WAut}[\wautset]
      \SttSet, ... ...
                                                        1734 \def\sttsym{q}
                                                        1735 \def\sttset{Q}
                                                        1736 \cmdmthsetext{Stt}[\sttset][\sttsym]
                                                        1737 \cmdmthset{IStt}[\sttset_{I}]
                                                        1738 \verb|\cmdmthsymelm{istt}[\sttsym_{I}]|
                                                        1739 \cmdmthset{FStt}[\sttset_{F}]
                                                        1740 \cmdmthsymelm{fstt}[\sttsym_{F}]
      \SymSet, ... ...
                                                        1741 \newcommand{\symsym}{\sigma}
                                                        1742 \newcommand{\symset}{\Sigma}
                                                        1743 \cmdmthsetext{Sym}[\symset][\symsym]
                        \trnFun ...
                                                        1744 \newcommand{\trnsym}{\delta}
                                                        1745 \cmdmthfun{trn}[\trnsym]
                                                        \LangFun
                                                        1747 \mbox{ \newcommand{\langfun}{L}}
                                                        1748 \cmdmthfun{Lang}[\langfun]
```

```
\WrdSet, ... ...
                    1749 \mbox{ } \mbox{wrdsym}{w}
                    1750 \newcommand{\wrdset}{Wr}
                    1751 \cmdmthsetext{Wrd} [\wrdset] [\wrdsym]
                    \DTA, ... ...
                    1753 \verb|\cmdtxtoparname{DTA}\cmdtxtoparname{ATA}| \\
                    1755 \verb|\cmdtxtoparname{DFT}\cmdtxtoparname{AFT}| \\
                    1756 \verb|\cmdtxtoparname{DBT}\cmdtxtoparname{ABT}| \\
                    1757 \verb|\cmdtxtoparname{DCT}\cmdtxtoparname{ACT}| \\
                    1758 \verb|\cmdtxtoparname{DPT}\cmdtxtoparname{MPT}\cmdtxtoparname{APT}|
                    1759 \verb|\cmdtxtoparname{DRT}\cmdtxtoparname{ART}| \\
                    1760 \verb|\cmdtxtoparname{DST}\cmdtxtoparname{AST}| \\
                    1761 \verb|\cmdtxtoparname{DMT}\cmdtxtoparname{MMT}| cmdtxtoparname{MMT}| 
                    \TAutSet ...
                    1763 \mbox{newcommand{\hat{TAut}}}
                    1764 \cmdmthset{TAut}[\tautset]
 \DirSet, ... ...
                    1765 \newcommand{\dirsym}{d}
                    1766 \newcommand{\dirset}{\Lambda}
                    1767 \cmdmthsetext{Dir}[\dirset][\dirsym]
                    \TreeSet, ... ...
                    1769 \mbox{ }\mbox{\command{\treesym}{T}}
                    1770 \newcommand{\treeset}{Tr}
                    1771 \cmdmthsetext{Tree} [\treeset] [\treesym]
        \wotFun ...
                     1772 \newcommand{\wotfun}{wot}
                    1773 \cmdmthfun{wot}[\wotfun]
                    1774 \fi
                    1779 \iffrm@
                    1780 %%...
                    1781 \fi
                    1786 \iffig@
                    1787 \RequirePackage{tikz}
                    1788 \usetikzlibrary{arrows, shapes, patterns}
                    1789 \tikzstyle{every node} =
                            [draw = none, fill = none, black, thin]
                    1791 \tikzstyle{every edge} +=
                    1792 [black, thick]
```

```
1793 \tikzstyle{noall} =
                                    [draw = none, fill = none]
                           1795 \tikzstyle{nodraw} =
                           1796 [draw = none, fill = white]
                           1797 \tikzstyle{nofill} =
                           1798 [draw = black, fill = none]
                           1799 \ifwrpfig@
                           1800 % Wrapfig Package
                                    \RequirePackage{wrapfig}
                           1801
                           1802 \fi
                           1803 \fi
                           1808 \iftab@
                           1809 %%...
                           1810 \fi
                           1815 \ifalg@
                           1816 \RequirePackage[ruled,vlined]{algorithm2e}
                           1817 \setlength{\algomargin}{1.25em}
                           1818 \DontPrintSemicolon
                           1819 \SetInd{0.25em}{0.5em}
     \Signature
                           1820 \SetKw{Signature}{signature}
    \Macro, ...
                           1821 \SetKwFor{Macro}{macro}{}}
                           1822 \SetKwFor{Function}{function}{}}
                           1823 \SetKwFor{Procedure}{procedure}{}{}
                           1824 \For{Let}{in}{}
\True, \False ...
                           1825 \SetKw{True}{true}
                           1826 \SetKw{False}{false}
     \GoTo, ... ...
                           1827 \SetKw{GoTo}{goto}
                           1828 \SetKw{Break}{break}
                           1829 \SetKw{Continue}{continue}
       \MIf, ... ...
                           1830 \texttt{MElse}{\#if}{\#else }{\#if}{\#else}{\#if}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else}{\#else
                \nlr ...
                           1831 \DeclareRobustCommand{\nlr}[1]
                                      {\addtocounter{AlgoLine}{1}%
                                      \nlset{\arabic{AlgoLine}-\addtocounter{AlgoLine}{#1}\arabic{AlgoLine}}}
                           1833
                           1834 \fi
                           1836 \endinput
                           1837 (/package)
```

2 Change History

v0.0	extensions
General: First public release 1	v0.5
v0.1	General: Figure tricks
General: Algorithm tricks $\dots \dots \dots$	v0.6
v0.2	General: Small refinements $\dots \dots 1$
General: Changes in auxiliary tricks 1	v0.7
v0.3	General: Refinements, corrections, and
General: Few problems solved $\dots 1$	extensions $\dots \dots \dots$
v0.4	v0.8
General: Refactoring, corrections, and	General: Few refinements and corrections 1

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\cmdmthoargcls 512	1364, 1498, 1501, 1510, 1517, 1520, 1525, 1533, 1537, 1544, 1700, 1736,	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
$\label{eq:cmdmthoargcls} $$\operatorname{cmdmthoargcls}$ \dots $$\underline{512}$ \\ \operatorname{cmdmthoargelm}$ \dots $$\underline{609}, 624$ \\$	1364, 1498, 1501, 1510, 1517, 1520, 1525, 1533,	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
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$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	1364, 1498, 1501, 1510, 1517, 1520, 1525, 1533, 1537, 1544, 1700, 1736, 1743, 1751, 1767, 1771	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
\cmdmthoargcls	1364, 1498, 1501, 1510, 1517, 1520, 1525, 1533, 1537, 1544, 1700, 1736, 1743, 1751, 1767, 1771 \cmdmthsig	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
\cmdmthoargcls	1364, 1498, 1501, 1510, 1517, 1520, 1525, 1533, 1537, 1544, 1700, 1736, 1743, 1751, 1767, 1771 \cmdmthsig	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
\cmdmthoargcls	1364, 1498, 1501, 1510, 1517, 1520, 1525, 1533, 1537, 1544, 1700, 1736, 1743, 1751, 1767, 1771 \cmdmthsig 521 \cmdmthshtr 647 \cmdmthstr 534 \cmdmthsym	$\begin{array}{llllllllllllllllllllllllllllllllllll$
\cmdmthoargcls	1364, 1498, 1501, 1510, 1517, 1520, 1525, 1533, 1537, 1544, 1700, 1736, 1743, 1751, 1767, 1771 \cmdmthsig 521 \cmdmthstr 534 \cmdmthsym	\cmdtxtpar 336, 341 \cmdtxtparabr 444 \cmdtxtparcom 469 \cmdtxtpardef 432 \cmdtxtparname 457 \cmodels,_\(\) 785 \cmp 849 \cnf,_\(\)\dnf,_\(\) 1207
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\cmdmthoargcls	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
\cmdmthoargcls	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
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\cmdmthoargcls	$\begin{array}{c} 1364,1498,1501,1510,\\ 1517,1520,1525,1533,\\ 1537,1544,1700,1736,\\ 1743,1751,1767,1771\\ \verb \cmdmthsig$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
\cmdmthoargcls	$\begin{array}{c} 1364,1498,1501,1510,\\ 1517,1520,1525,1533,\\ 1537,1544,1700,1736,\\ 1743,1751,1767,1771\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	\cmdtxtpar 336, 341 \cmdtxtparabr 444 \cmdtxtparcom 469 \cmdtxtpardef 432 \cmdtxtparname 457 \cmodels,\u. 785 \cmp 849 \cnf,\u]\dnf,\u]\Sym 1195 \coimplies,\u. 780 \com@false 56, 77, 79 \com@true 78 \conset 1238, 1239 \consig 1235, 1236 \ConSig,\u. 1235
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\cmdmthoargcls 512 \cmdmthoargelm 609, 624 \cmdmthoargfam 499 \cmdmthoargfrm 664 \cmdmthoargfrm 664 \cmdmthoargfun 583, 1084, 1086, 1088, 1090, 1092, 1094, 1100, 1102 \cmdmthoargmat 678 \cmdmthoargmame 486 \cmdmthoargrame 570 \cmdmthoargset 551 \cmdmthoargsig 525 \cmdmthoargsnt 651 \cmdmthoargsym 596, 623 \cmdmthoargsymelm 622 \cmdmthoargywelm 622 \cmdmthopar 393, 396 \cmdmthoparcls 516 \cmdmthoparelm 613, 630 \cmdmthoparfam 503 \cmdmthoparfrm 668 \cmdmthoparfun 587 \cmdmthoparname 490 \cmdmthoparrel 574	1364, 1498, 1501, 1510, 1517, 1520, 1525, 1533, 1537, 1544, 1700, 1736, 1743, 1751, 1767, 1771 \cmdmthsig	\cmdtxtpar 336, 341 \cmdtxtparabr 444 \cmdtxtparcom 469 \cmdtxtpardef 432 \cmdtxtparname 457 \cmodels, 785 \cmp 849 \cnf, \Qnt, \Sym 1195 \coimplies, 780 \com@false 56, 77, 79 \com@true 78 \conset 1238, 1239 \consig 1235, 1236 \ConSig, 1262 \constr 1262, 1263 \ConStr, 1262 \consym 1237, 1239 \Contd 758 \contd 751 \crv@false 40 \crv@true 41 \csdef 225, 226, 227, 228, 229, 331, 333, 335, 337, 339, 344, 386, 388, 390, 392, 394, 399, 985, 987 \csedef 259, 263
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\cmdmthoargcls 512 \cmdmthoargelm 609, 624 \cmdmthoargfam 499 \cmdmthoargfrm 664 \cmdmthoargfun 583, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102 \cmdmthoargmat 678 \cmdmthoargname 486 \cmdmthoargrel 570 \cmdmthoargset 551 \cmdmthoargsig 525 \cmdmthoargstr 538 \cmdmthoargsym 596, 623 \cmdmthoargsymelm 622 \cmdmthopar 393, 396 \cmdmthoparcls 516 \cmdmthoparelm 613, 630 \cmdmthoparfam 503 \cmdmthoparfam 587 \cmdmthoparfun 587 \cmdmthoparname 490 \cmdmthoparrel 574 \cmdmthoparset 555 \cmdmthoparset 555 \cmdmthoparset 555	$\begin{array}{c} 1364,1498,1501,1510,\\ 1517,1520,1525,1533,\\ 1537,1544,1700,1736,\\ 1743,1751,1767,1771\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	\cmdtxtpar \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
\cmdmthoargcls 512 \cmdmthoargelm 609, 624 \cmdmthoargfam 499 \cmdmthoargfrm 664 \cmdmthoargfrm 664 \cmdmthoargfun 583, 1084, 1086, 1088, 1090, 1092, 1094, 1100, 1102 \cmdmthoargmat 678 \cmdmthoargmat 486 \cmdmthoargname 486 \cmdmthoargset 551 \cmdmthoargset 551 \cmdmthoargsig 525 \cmdmthoargsym 596, 623 \cmdmthoargsym 596, 623 \cmdmthoargsymelm 622 \cmdmthoargvec 691 \cmdmthoparcls 516 \cmdmthoparelm 613, 630 \cmdmthoparfam 503 \cmdmthoparfun 587 \cmdmthoparmat 682 \cmdmthoparmat 682 \cmdmthoparrel 574 \cmdmthoparset 555	$\begin{array}{c} 1364,1498,1501,1510,\\ 1517,1520,1525,1533,\\ 1537,1544,1700,1736,\\ 1743,1751,1767,1771\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	\cmdtxtpar \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

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		\emptyrel <u>833</u>
95, 100, 101, 106, 107,	356, 360, 364, 368, 399,	\emptyseq <u>959</u>
111, 116, 117, 122, 123, 126	560, 562, 829, 972, 973,	\emptyset 1489, 1491
\DeclareRobustCommand	987, 1347, 1349, 1489, 1491	\endcsname 249,
767, 769, 772, 774, 776,	\delta 1744	250, 251, 252, 253, 254,
778, 780, 782, 785, 787,	\denot 830	
789, 791, 794, 796, 798,	\dep,_\alt 1205	255, 260, 264, 331, 333,
800, 802, 820, 822, 824,	\der 798	335, 337, 339, 344, 350, 399
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826, 828, 830, 833, 836,	\Dere \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\ENGSL 1668
838, 840, 842, 845, 847,	\dere <u>711</u>	\enmtls@false 29
849, 852, 861, 863, 865,	\DF,_\\IF, \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\enmtls@true 28
867, 870, 872, 874, 876,	\DGSL 1597, 1601, 1603	
878, 880, 883, 885, 887,	\Diamond 1344	\ensuremath . 315, 350, 856,
889, 891, 893, 895, 897,	\dirset 1766, 1767	858, 1164, 1166, 1339,
899, 901, 903, 905, 907,	\DirSet,	1341, 1368, 1374, 1376,
909, 911, 913, 915, 917,		1387, 1389, 1398, 1400,
	\dirsym 1765, 1767	1425, 1427, 1436, 1438,
920, 922, 924, 926, 928,	\Divideetimpera \docs \frac{733}{513}	1447, 1449, 1462, 1464,
931, 933, 936, 938, 940,	\divideetimpera $\dots ag{712}$	1473, 1475, 1484, 1486,
942, 944, 946, 948, 950,	\DMod 1347	1550, 1552, 1558, 1560,
952, 954, 956, 959, 961,	\DMod, _\BMod <u>1344</u>	1567, 1569, 1575, 1577,
963, 1161, 1163, 1165,	\do 258, 262	1584, 1586, 1592, 1594,
1005 1005 1000 1005		
1225, 1305, 1320, 1327,	$\langle dom, \langle cod, \dots \rangle \rangle$	
	$\dom, \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	1601, 1603, 1609, 1611,
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\mth \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\Mutatismutandis	\normalfont 425, 450, 462 \not 775, 779, 783, 788, 792 \notcequiv 791 \notcmodels 787 \notcoimplies 782 \notimplied 778 \notimplied 778 \notimplies 774 \num, 920 \numcc 922 \numco 924 \numoc 926 \numoo 926 \numoo 928 \nxtFun 1704 \nxtfun 1704, 1705 O \obsset 1053, 1054 \ObsSet 1053, 1054 \ObsSet 1053, 1054 \ObsSet 124, 1125 \odot 1197 \OGSL 1563, 1567, 1569, 1572 \Omega 873 \omega 871 \Omega 881 \omega 881 \omego 1013, 1044, 1066, 1067,
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