

# fmocdmac — FM's OCD L<sup>A</sup>T<sub>E</sub>X 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 `\package`

### Required external packages:

2  
3 `\RequirePackage{etoolbox}`  
4  
5 `\RequirePackage{xargs}`  
6 `\RequirePackage{xspace}`  
7 `\RequirePackage{stringstrings}`  
8

### Package options:

9  
10 `%% Auxiliary packages`  
11 `\newif\ifaux@ \aux@false`  
12 `\DeclareOption{aux}{\aux@true}`  
13 `\DeclareOption{noaux}{\aux@false}`  
14  
15 `%% AMS defaults`  
16 `\newif\ifamsdef@ \amsdef@true`  
17 `\DeclareOption{noamsdef}{\amsdef@false}`  
18  
19 `%% AMS theorem tools`  
20 `\newif\ifamsthm@ \amsthm@true`  
21 `\DeclareOption{noamsthm}{\amsthm@false}`  
22  
23 `%% Extended Theorem tools`  
24 `\newif\ifthmtls@ \thmtls@true`  
25 `\DeclareOption{nothmtls}{\thmtls@false}`  
26  
27 `%% Enumeration tools`  
28 `\newif\ifenmtls@ \enmtls@true`  
29 `\DeclareOption{noenmtls}{\enmtls@false}`  
30  
31 `%% Hyper reference`  
32 `\newif\ifhympref@ \hympref@true`  
33 `\DeclareOption{nohympref}{\hympref@false}`  
34

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\*This document describes version v0.17 of the fmocdmac package, last revised 2023/05/01.

```

35 %% Font tools
36 \newif\iffnttts@ \fnttts@true
37 \DeclareOption{nofnttts}{\fnttts@false}
38
39 %% Camera-ready version
40 \newif\ifcrv@ \crv@false
41 \DeclareOption{crv}{\crv@true}
42
43 %% Change bars
44 \newif\ifchgbar@ \chgbar@false
45 \DeclareOption{chgbar}{\chgbar@true}
46
47 %% Line numbers
48 \newif\iflinnum@ \linnum@false
49 \DeclareOption{linnum}{\linnum@true}
50
51
52 %% Text macro generation
53 \newif\iftxtgen@ \txtgen@false
54 \DeclareOption{txtgen}{\txtgen@true}
55 \DeclareOption{notxtgen}
56   {\txtgen@false\txt@false\com@false\gam@false\log@false\aut@false}
57
58 %% Math macro generation
59 \newif\ifmthgen@ \mthgen@false
60 \DeclareOption{mthgen}{\mthgen@true}
61 \DeclareOption{nomthgen}
62   {\mthgen@false\mth@false\gam@false\log@false\aut@false}
63
64
65 %% Elementary macros for text
66 \newif\iftxt@ \txt@false
67 \DeclareOption{txt}{\txt@true\txtgen@true}
68 \DeclareOption{notxt}{\txt@false}
69
70 %% Elementary macros for math
71 \newif\ifmth@ \mth@false
72 \DeclareOption{mth}{\mth@true\mthgen@true}
73 \DeclareOption{nomth}{\mth@false}
74
75
76 %% Macros for computational-complexity classes
77 \newif\ifcom@ \com@false
78 \DeclareOption{com}{\com@true\txtgen@true}
79 \DeclareOption{nocom}{\com@false}
80
81
82 %% Macros for games
83 \newif\ifgam@ \gam@false
84 \DeclareOption{gam}{\gam@true\txtgen@true\mthgen@true}
85 \DeclareOption{nogam}{\gam@false}
86
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 \DeclareOption{aut}{\aut@true\txtgen@true\mthgen@true}
95 \DeclareOption{noaut}{\aut@false}
96
97

```

```

98 %% Format-related tricks
99 \newif\iffirm@ \firm@false
100 \DeclareOption{firm}{\firm@true}
101 \DeclareOption{nofirm}{\firm@false}
102
103
104 %% Figure-related tricks
105 \newif\iffig@ \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 \DeclareOption*{\PackageWarning{fmodcmac}{Unknown~'\CurrentOption'}}%
127
128 \ExecuteOptions{aux,txtgen,mthgen,txt,mth,com,gam,log,aut}%
129
130 \ProcessOptions\relax%
131
132 \ifcsdef{if@twocolumn}{\newif\if@twocolumn}
133

```

### Package main body:

```

134
135 %%*****%
136 %** Auxiliary Alphabet Letters *****%
137 %*****%

```

\omicron **Auxiliary Greek lowercase letter: ... to do!**

```
138 \csdef{omicron}{o}
```

\Alpha, ... **Auxiliary Greek uppercase letters: ... to do!**

```

139 \csdef{Alpha}{A} \csdef{Beta}{B} \csdef{Epsilon}{E} \csdef{varEpsilon}{E}
140 \csdef{Zeta}{Z} \csdef{Eta}{H} \csdef{Iota}{I} \csdef{Kappa}{K}
141 \csdef{varKappa}{K} \csdef{Mu}{M} \csdef{Nu}{N} \csdef{Omicron}{O}
142 \csdef{Rho}{P} \csdef{varRho}{P} \csdef{Tau}{T} \csdef{Chi}{X}

```

```

143 %%*****%
144 %*****%
145 %** Tools *****%
146 %*****%

```

\empchk **Emptiness check:**  $\empchk{\langle A \rangle}{\langle B \rangle}$  evaluates to the empty string, if Argument  $\langle A \rangle$  is empty, and to Argument  $\langle B \rangle$ , otherwise.

- $\empchk{}{B} = ""$
- $\empchk{A}{B} = "B"$

```

147 \newcommand{\empchk}[2]
148   {\if&#1&\else#2\fi}

\defval Default value: \defval{<A>}{<B>} evaluates to Argument <B>, if Argument <A> is empty, and to
Argument <A> itself, otherwise.
    • \defval{}{B} = “B”
    • \defval{A}{B} = “A”
149 \newcommand{\defval}[2]
150   {\if&#1&#2\else#1\fi}

151 %%*****%

\arglef Left extension: \arglef{<A>}{<B>} evaluates to the concatenation <AB> of the two arguments, if
Argument <B> is non-empty, and to the empty string, otherwise.
    • \arglef{A}{} = “”
    • \arglef{A}{B} = “AB”
152 \newcommand{\arglef}[2]
153   {\empchk{#2}{#1#2}}

\argrig Right extension: \argrig{<A>}{<B>} evaluates to the concatenation <AB> of the two arguments,
if Argument <A> is non-empty, and to the empty string, otherwise.
    • \argrig{}{B} = “”
    • \argrig{A}{B} = “AB”
154 \newcommand{\argrig}[2]
155   {\empchk{#1}{#1#2}}

\argmid Middle extension: \argmid{<A>}{<B>}{<C>} evaluates to the concatenation <ABC> of the three
arguments, if Argument <B> is non-empty, and to the empty string, otherwise.
    • \argmid{A}{}{C} = “”
    • \argmid{A}{B}{C} = “ABC”
156 \newcommand{\argmid}[3]
157   {\empchk{#2}{#1#2#3}}

\argsep Separators: \argsep{<A>}{<B>}{<C>} evaluates to Argument <C>, if Argument <A> is empty, to
Argument <A>, if Argument <C> is empty, and to the concatenation <ABC>, otherwise.
    • \argsep{}{B}{C} = “C”
    • \argsep{A}{B}{} = “A”
    • \argsep{A}{}{C} = “AC”
    • \argsep{A}{B}{C} = “ABC”
158 \newcommand{\argsep}[3]
159   {\if&#1&#3\else#1\arglef{#2}{#3}\fi}

160 %%*****%

\varcmd Variadic commands: \varcmd{<A>}{<B>}{<C>}{<D>}{<E>}{<F>} ... to do!
161 \newcommand{\varcmd}[6]
162   {\expandafter\newcommand\csname gobble#1arg\endcsname[2]
163     {\csname check#1arg\endcsname{\argsep{##1}{#4}{\empchk{##2}{#{##2}}}}}
164   \expandafter\newcommand\csname check#1arg\endcsname[1]
165     {\csname @ifnextchar\endcsname%
166       \bgroup{\csname gobble#1arg\endcsname{##1}{#2{##1#5}#6}}%
167   \expandafter\newcommand\csname#1\endcsname[1]
168     {\csname check#1arg\endcsname{#3##1}}
169 %%*****%

```

```

\seqoftag Sequence of tags: \seqoftag{⟨A⟩}{⟨B⟩}{⟨C⟩} ... to do!
170 \newcommand{\seqoftag}[3]
171   {\@for\itr:={#1}\do%
172     {\expandafter\csedef{\itr#2}%
173       {\noexpand\csname #3\endcsname{\itr}}}}

\seqofcmd Sequence of commands: \seqofcmd{⟨A⟩}{⟨B⟩}{⟨C⟩} ... to do!
174 \newcommand{\seqofcmd}[3]
175   {\@for\itr:={#1}\do%
176     {\expandafter\csedef{\itr#2}%
177       {\noexpand\csname #3\endcsname{\csname \itr\endcsname}}}}

178 %%*****%

\seqoflatlow Sequence of Latin lowercase letters: \seqoflatlow{⟨A⟩}{⟨B⟩} ... to do!
179 \newcommand{\seqoflatlow}
180   {\seqoftag{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}}

\seqoflatupp Sequence of Latin uppercase letters: \seqoflatupp{⟨A⟩}{⟨B⟩} ... to do!
181 \newcommand{\seqoflatupp}
182   {\seqoftag{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}}

\seqoflatlet Sequence of Latin letters: \seqoflatlet{⟨A⟩}{⟨B⟩} ... to do!
183 \newcommand{\seqoflatlet}[2]
184   {\seqoflatlow{#1}{#2}\seqoflatupp{#1}{#2}}

185 %%*****%

\seqofgrklow Sequence of Greek lowercase letters: \seqofgrklow{⟨A⟩}{⟨B⟩} ... to do!
186 \newcommand{\seqofgrklow}
187   {\seqofcmd{alpha,beta,gamma,delta,epsilon,varepsilon,zeta,eta,theta,vartheta,%
188     iota,kappa,varkappa,lambda,mu,nu,xi,omicron,pi,varpi,rho,varrho,sigma,%
189     varsigma,tau,upsilon,phi,varphi,chi,psi,omega}}

\seqofgrkupp Sequence of Greek uppercase letters: \seqofgrkupp{⟨A⟩}{⟨B⟩} ... to do!
190 \newcommand{\seqofgrkupp}
191   {\seqofcmd{Alpha,Beta,Gamma,Delta,Epsilon,varEpsilon,Zeta,Eta,Theta,varTheta,%
192     Iota,Kappa,varKappa,Lambda,Mu,Nu,Xi,Omicron,Pi,varPi,Rho,varRho,Sigma,%
193     varSigma,Tau,Upsilon,Phi,varPhi,Chi,Psi,Omega}}

\seqofgrklet Sequence of Greek letters: \seqofgrklet{⟨A⟩}{⟨B⟩} ... to do!
194 \newcommand{\seqofgrklet}[2]
195   {\seqofgrklow{#1}{#2}\seqofgrkupp{#1}{#2}}

196 %%*****%

\seqoflow Sequence of lowercase letters: \seqoflow{⟨A⟩}{⟨B⟩} ... to do!
197 \newcommand{\seqoflow}[2]
198   {\seqoflatlow{#1}{#2}\seqofgrklow{#1}{#2}}

\seqofupp Sequence of uppercase letters: \seqofupp{⟨A⟩}{⟨B⟩} ... to do!
199 \newcommand{\seqofupp}[2]
200   {\seqoflatupp{#1}{#2}\seqofgrkupp{#1}{#2}}

\seqoflet Sequence of all letters: \seqoflet{⟨A⟩}{⟨B⟩} ... to do!
201 \newcommand{\seqoflet}[2]
202   {\seqoflow{#1}{#2}\seqofupp{#1}{#2}}

203 %%*****%

```

```

204 %*****%
205 %** Auxiliary Packages *****%
206 %*****%
207 \ifaux@
208
209 \ifamsdef@
210 % AMS Packages
211 \RequirePackage{mathtools}
212 \RequirePackage{amssymb}
213 \RequirePackage{stmaryrd}
214 \interdisplaylinepenalty=2500
215 \fi
216
217 \ifamsthm@
218 % AMS Theorem Tools
219 \RequirePackage{amsthm}
220 \fi
221
222 \ifthmtls@
223 % Extended Theorem Tools
224 \RequirePackage{thmtools, thm-restate}
225 \fi
226
227 \ifenmtls@
228 % Enumeration Tools
229 \RequirePackage{paralist}
230 \fi
231
232 \ifhympref@
233 % Hyper References
234 \RequirePackage{hyperref}
235 \hypersetup {
236     pdfsubject    = {},
237     pdfkeywords   = {},
238     pdfproducer   = {},
239     pdfcreator    = {},
240     pdfpagemode   = {UseNone},
241     pdfstartview  = {FitH},
242     urlcolor      = {blue},
243     colorlinks
244 }
245 \fi
246
247 \iffnttts@
248 % Font Tools
249 \RequirePackage[final]{microtype}
250 \fi
251
252 \ifcrv@
253 % Camera-Ready Version
254
255 %...
256
257 \else
258 % Draft Version
259
260 %...
261
262 \ifchgbar@
263 % Change Bars
264 \RequirePackage{changebar}
265 \fi
266

```

```

267 \iflinnum@
268 % Line Numbers
269 \if@twocolumn
270 \RequirePackage[switch, columnwise, mathlines]{lineno}\linenumbers
271 \else
272 \RequirePackage[columnwise, mathlines]{lineno}\linenumbers
273 \fi
274 \fi
275
276 %...
277
278 \fi
279
280 \fi
281 %*****%
282 %*****%
283 %** Auxiliary Font Declarations *****%
284 %*****%

```

**\mathbbo Bbo Math Font: ... to do!**

```
285 \ifdef{\mathbbo}{\DeclareMathAlphabet{\mathbbo}{U}{bbold}{m}{n}}
```

**\matheus Eus Math Font: ... to do!**

```
286 \ifdef{\matheus}{\DeclareMathAlphabet{\matheus}{U}{eus}{m}{n}}
```

**\mathpzc Pzc Math Font: ... to do!**

```
287 \ifdef{\mathpzc}{\DeclareMathAlphabet{\mathpzc}{T1}{pzc}{m}{it}}
```

**\mathscr Scr Math Font: ... to do!**

```
288 \ifdef{\mathscr}{\DeclareMathAlphabet{\mathscr}{U}{rsfs}{m}{n}}
```

```

289 %*****%
290 %*****%
291 %** Text Meta Commands *****%
292 %*****%

```

**\newtxt ... to do!**

- `\newtxt[\rmfamily]{Name}[sub][sup][Ext] = "NamesubsupExt"`
- `\newtxt[\sffamily]{Name}[sub][sup][Ext] = "NamesubsupExt"`
- `\newtxt[\ttfamily]{Name}[sub][sup][Ext] = "NamesubsupExt"`

```

293 \newcommandx{\newtxt}[5][1=, 3=, 4=, 5=]
294 {\text{#1#2\textsubsup{#1}{#3}{#4}{#5}\xspace}}

```

**\newtxtsty ... to do!**

- `\newtxtsty{\rmfamily}{Name}[sub][sup][Ext] = "NamesubsupExt"`
- `\newtxtsty{\rmfamily}[\sffamily]{Name}[sub][sup][Ext] = "NamesubsupExt"`
- `\newtxtsty{\rmfamily}[\ttfamily]{Name}[sub][sup][Ext] = "NamesubsupExt"`

```

295 \newcommandx{\newtxtsty}[2][2=]
296 {\newtxt[\defval{#2}{#1}]}

```

**\newxtarg ... to do!**

- `\newxtarg[\rmfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "NamesubsupExt1(Arg)Ext2"`
- `\newxtarg[\sffamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "NamesubsupExt1(Arg)Ext2"`
- `\newxtarg[\ttfamily]{Name}[sub][sup][Ext1]{Arg}[Ext2] = "NamesubsupExt1(Arg)Ext2"`

```

297 \newcommandx{\newxtarg}[7][1=, 3=, 4=, 5=, 7=]
298 {\newtxt{#1}{#2}{#3}{#4}[\argmid{#5}{#6}{#7}]}

```

**\newxtargsty ... to do!**

- `\newxtargsty{\rmfamily}{Name}[sub][sup][Ext1]{Arg}[Ext2] = "NamesubsupExt1(Arg)Ext2"`

- $\backslash\text{newtxtargsty}\{\backslash\text{rmfamily}\}\{\backslash\text{sffamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Ext1}]\{\text{Arg}\}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}(\text{Arg})\text{Ext2}$
- $\backslash\text{newtxtargsty}\{\backslash\text{rmfamily}\}\{\backslash\text{ttfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Ext1}]\{\text{Arg}\}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}(\text{Arg})\text{Ext2}$

```

299 \newcommandx{\newtxtargsty}[2][2=]
300 {\newtxtarg[\defval{#2}{#1}]}

```

$\backslash\text{newtxtoarg}$  ... to do!

- $\backslash\text{newtxtoarg}\{\backslash\text{rmfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Arg}] = \text{Name}_{\text{sub}}^{\text{sup}}(\text{Arg})$
- $\backslash\text{newtxtoarg}\{\backslash\text{sffamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Arg}] = \text{Name}_{\text{sub}}^{\text{sup}}(\text{Arg})$
- $\backslash\text{newtxtoarg}\{\backslash\text{ttfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Arg}] = \text{Name}_{\text{sub}}^{\text{sup}}(\text{Arg})$

```

301 \newcommandx{\newtxtoarg}[5][1=, 3=, 4=, 5=]
302 {\newtxtarg[#1]{#2}{#3}{#4}[]\{#5\}[]}

```

$\backslash\text{newtxtoargsty}$  ... to do!

- $\backslash\text{newtxtoargsty}\{\backslash\text{rmfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Arg}] = \text{Name}_{\text{sub}}^{\text{sup}}(\text{Arg})$
- $\backslash\text{newtxtoargsty}\{\backslash\text{rmfamily}\}\{\backslash\text{sffamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Arg}] = \text{Name}_{\text{sub}}^{\text{sup}}(\text{Arg})$
- $\backslash\text{newtxtoargsty}\{\backslash\text{rmfamily}\}\{\backslash\text{ttfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Arg}] = \text{Name}_{\text{sub}}^{\text{sup}}(\text{Arg})$

```

303 \newcommandx{\newtxtoargsty}[2][2=]
304 {\newtxtoarg[\defval{#2}{#1}]}

```

$\backslash\text{newtxtpar}$  ... to do!

- $\backslash\text{newtxtpar}\{\backslash\text{rmfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Ext1}]\{\text{Par}\}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}[\text{Par}]\text{Ext2}$
- $\backslash\text{newtxtpar}\{\backslash\text{sffamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Ext1}]\{\text{Par}\}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}[\text{Par}]\text{Ext2}$
- $\backslash\text{newtxtpar}\{\backslash\text{ttfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Ext1}]\{\text{Par}\}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}[\text{Par}]\text{Ext2}$

```

305 \newcommandx{\newtxtpar}[7][1=, 3=, 4=, 5=, 7=]
306 {\newtxt[#1]{#2}{#3}{#4}[\argmid{#5}{#6}{#7}]}

```

$\backslash\text{newtxtparsty}$  ... to do!

- $\backslash\text{newtxtparsty}\{\backslash\text{rmfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Ext1}]\{\text{Par}\}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}[\text{Par}]\text{Ext2}$
- $\backslash\text{newtxtparsty}\{\backslash\text{rmfamily}\}\{\backslash\text{sffamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Ext1}]\{\text{Par}\}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}[\text{Par}]\text{Ext2}$
- $\backslash\text{newtxtparsty}\{\backslash\text{rmfamily}\}\{\backslash\text{ttfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Ext1}]\{\text{Par}\}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}[\text{Par}]\text{Ext2}$

```

307 \newcommandx{\newtxtparsty}[2][2=]
308 {\newtxtpar[\defval{#2}{#1}]}

```

$\backslash\text{newtxtopar}$  ... to do!

- $\backslash\text{newtxtopar}\{\backslash\text{rmfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Par}] = \text{Name}_{\text{sub}}^{\text{sup}}[\text{Par}]$
- $\backslash\text{newtxtopar}\{\backslash\text{sffamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Par}] = \text{Name}_{\text{sub}}^{\text{sup}}[\text{Par}]$
- $\backslash\text{newtxtopar}\{\backslash\text{ttfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Par}] = \text{Name}_{\text{sub}}^{\text{sup}}[\text{Par}]$

```

309 \newcommandx{\newtxtopar}[5][1=, 3=, 4=, 5=]
310 {\newtxtpar[#1]{#2}{#3}{#4}[]\{#5\}[]}

```

$\backslash\text{newtxtoparsty}$  ... to do!

- $\backslash\text{newtxtoparsty}\{\backslash\text{rmfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Par}] = \text{Name}_{\text{sub}}^{\text{sup}}[\text{Par}]$
- $\backslash\text{newtxtoparsty}\{\backslash\text{rmfamily}\}\{\backslash\text{sffamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Par}] = \text{Name}_{\text{sub}}^{\text{sup}}[\text{Par}]$
- $\backslash\text{newtxtoparsty}\{\backslash\text{rmfamily}\}\{\backslash\text{ttfamily}\}\{\text{Name}\}_{\text{sub}}^{\text{sup}}[\text{Par}] = \text{Name}_{\text{sub}}^{\text{sup}}[\text{Par}]$

```

311 \newcommandx{\newtxtoparsty}[2][2=]
312 {\newtxtopar[\defval{#2}{#1}]}

```

$\backslash\text{txtsubsup}$  ... to do!

- $\backslash\text{txtsubsup}\{\text{sub}\}\{\} = \text{“}_{\text{sub}}\text{”}$ ;  $\backslash\text{txtsubsup}\{\}\{\text{sup}\} = \text{“}^{\text{sup}}\text{”}$ ;  $\backslash\text{txtsubsup}\{\text{sub}\}\{\text{sup}\} = \text{“}_{\text{sub}}^{\text{sup}}\text{”}$
- $\backslash\text{txtsubsup}\{\backslash\text{sffamily}\}\{\text{Aa}\}\{\text{Bb}\} = \text{“}_{\text{Aa}}^{\text{Bb}}\text{”}$
- $\backslash\text{txtsubsup}\{\backslash\text{ttfamily}\}\{\text{Aa}\}\{\text{Bb}\} = \text{“}_{\text{Aa}}^{\text{Bb}}\text{”}$

```

313 \newcommand{\txtsubsup}[3]{}
314 {\ensuremath{\backslash\text{empchk}{#2}\{\text{#1}\}\backslash\text{empchk}{#3}\{\text{#1}\}}}

```

```

315 %*****%

```



```

\txt ... to do!
    • \txt{Name}[sub][sup][Ext] = "NamesubExt"
    • \txt{\scshape}{Name}[sub][sup][Ext] = "NAMESUBEXT"
    • \txt{\bfseries}{Name}[sub][sup][Ext] = "NamesubExt"
316 \newcommand{\txt}
317 {\newtxtsty{\txtsty}}

\txtgarg ... to do!
    • \txtgarg{Name}[sub][sup][Ext1]{Arg}[Ext2] = "NamesubExt1(Arg)Ext2"
    • \txtgarg{\scshape}{Name}[sub][sup][Ext1]{Arg}[Ext2] = "NAMESUBEXT1(ARG)EXT2"
    • \txtgarg{\bfseries}{Name}[sub][sup][Ext1]{Arg}[Ext2] = "NamesubExt1(Arg)Ext2"
318 \newcommand{\txtgarg}
319 {\newtxtgargsty{\txtsty}}

\txtoarg ... to do!
    • \txtoarg{Name}[sub][sup][Arg] = "Namesub(Arg)"
    • \txtoarg{\scshape}{Name}[sub][sup][Arg] = "NAMESUB(ARG)"
    • \txtoarg{\bfseries}{Name}[sub][sup][Arg] = "Namesub(Arg)"
320 \newcommand{\txtoarg}
321 {\newtxtoargsty{\txtsty}}

\txtpar ... to do!
    • \txtpar{Name}[sub][sup][Ext1]{Par}[Ext2] = "NamesubExt1[Par]Ext2"
    • \txtpar{\scshape}{Name}[sub][sup][Ext1]{Par}[Ext2] = "NAMESUBEXT1[PAR]EXT2"
    • \txtpar{\bfseries}{Name}[sub][sup][Ext1]{Par}[Ext2] = "NamesubExt1[Par]Ext2"
322 \newcommand{\txtpar}
323 {\newtxtparsty{\txtsty}}

\txtopar ... to do!
    • \txtopar{Name}[sub][sup][Par] = "Namesub[Par]"
    • \txtopar{\scshape}{Name}[sub][sup][Par] = "NAMESUB[PAR]"
    • \txtopar{\bfseries}{Name}[sub][sup][Par] = "Namesub[Par]"
324 \newcommand{\txtopar}
325 {\newtxtoparsty{\txtsty}}

\txtsty ... to do!
326 \newcommand{\txtsty}
327 {\mdseries\upshape\rmfamily}

328 %*****%

\cmdtxt ... to do!
    • \cmdtxt{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
    \txtNewCmd{Name}[sub][sup][Ext] = NAMESUBEXT
329 \newcommand{\cmdtxt}[1]
330 {\csdef{txt#1}{\newtxtsty{\csname txtsty#1\endcsname}}}

\cmdtxtgarg ... to do!
    • \cmdtxtgarg{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
    \txtgargNewCmd{Name}[sub][sup][Ext1]{Arg}[Ext2] = NAMESUBEXT1(ARG)EXT2
331 \newcommand{\cmdtxtgarg}[1]
332 {\csdef{txtgarg#1}{\newtxtgargsty{\csname txtsty#1\endcsname}}}

\cmdtxtoarg ... to do!
    • \cmdtxtoarg{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
    \txtoargNewCmd{Name}[sub][sup][Arg] = NAMESUB(ARG)

```

```

333 \newcommand{\cmdtxtoarg}[1]
334 {\csdef{txtoarg#1}{\newtxtoargsty{\csname txtsty#1\endcsname}}}

\cmdtxtpar ... to do!


- \cmdtxtpar{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
  \txtparNewCmd{Name}[sub][sup][Ext1]{Par}[Ext2] = NAMESUBEXT1[PAR]EXT2


335 \newcommand{\cmdtxtpar}[1]
336 {\csdef{txtpar#1}{\newtxtparsty{\csname txtsty#1\endcsname}}}

\cmdtxtopar ... to do!


- \cmdtxtopar{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
  \txtoparNewCmd{Name}[sub][sup][Par] = NAMESUB[PAR]


337 \newcommand{\cmdtxtopar}[1]
338 {\csdef{txtopar#1}{\newtxtoparsty{\csname txtsty#1\endcsname}}}

\cmdtxtall ... to do!


- \cmdtxtall{NewCmd}; \newcommand{txtstyNewCmd}{\scshape\ttfamily};
  \txtNewCmd{Name}[sub][sup][Ext] = NAMESUBEXT
  \txtargNewCmd{Name}[sub][sup][Ext1]{Arg}[Ext2] = NAMESUBEXT1(ARG)EXT2
  \txtoargNewCmd{Name}[sub][sup][Arg] = NAMESUB(ARG)
  \txtparNewCmd{Name}[sub][sup][Ext1]{Par}[Ext2] = NAMESUBEXT1[PAR]EXT2
  \txtoparNewCmd{Name}[sub][sup][Par] = NAMESUB[PAR]


339 \newcommand{\cmdtxtall}[1]
340 {\cmdtxt{#1}\cmdtxtarg{#1}\cmdtxtoarg{#1}\cmdtxtpar{#1}\cmdtxtopar{#1}}

341 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

\usrtxt ... to do!


- \usrtxt{cmdName}{Suf}{}; \cmdNameSuf = cmdName
  \usrtxt{cmdName}{Suf}{arg}; \cmdNameSuf{Arg} = cmdName(Arg)
  \usrtxt{cmdName}{Suf}{par}; \cmdNameSuf{Par} = cmdName[Par]
- \usrtxt{cmdName}{Suf}{}[newName]; \cmdNameSuf = newName
  \usrtxt{cmdName}{Suf}{arg}[newName]; \cmdNameSuf{Arg} = newName(Arg)
  \usrtxt{cmdName}{Suf}{par}[newName]; \cmdNameSuf{Par} = newName[Par]


342 \newcommandx{\usrtxt}[4][4=]
343 {\csdef{#1#2}{\csname txt#3\endcsname{\defval{#4}{#1}}}}

344 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
345 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
346 %** Math Meta Commands %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
347 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

\newmth ... to do!


- \newmth[mathrm]{Name}[sub][sup][Ext] = "NamesupsubExt"
- \newmth[mathsf]{Name}[sub][sup][Ext] = "NamesupsubExt"
- \newmth[mathtt]{Name}[sub][sup][Ext] = "NamesupsubExt"


348 \newcommandx{\newmth}[5][1=, 3=, 4=, 5=]
349 {\ensuremath{\csname#1\endcsname{#2}\mthsubsup{#3}{#4}{#5}}}

\newmthsty ... to do!


- \newmthsty[mathrm]{Name}[sub][sup][Ext] = "NamesupsubExt"
- \newmthsty[mathsf]{Name}[sub][sup][Ext] = "NamesupsubExt"
- \newmthsty[mathtt]{Name}[sub][sup][Ext] = "NamesupsubExt"


350 \newcommandx{\newmthsty}[2][2=]
351 {\newmth{\defval{#2}{#1}}}

\newmtharg ... to do!


- \newmtharg[mathrm]{Name}[sub][sup][Ext1]{ArgEx{Ex}}[Ext2] = "NamesupsubExt1(ArgExEx)Ext2"

```

- ```

352 \newcommand{\newmtharg}
353   {\@ifstar{\@snewmtharg}{\@newmtharg}}
354 \newcommandx{\@newmtharg}[7][1=, 3=, 4=, 5=, 7=]
355   {\newmth{#1}{#2}{#3}{#4}[\argmid{#5}\left{#6}{\right}\arglef{!}{#7}]}
356 \newcommandx{\@snewmtharg}[7][1=, 3=, 4=, 5=, 7=]
357   {\newmth{#1}{#2}{#3}{#4}[\argmid{#5}{#6}{#7}]}

```

- `\newmthargsty{\mathrm}{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2]` = “Name<sub>sub</sub><sup>sup</sup>Ext1(*Arg*<sup>Ex<sup>Ex</sup></sup>)Ext2”
- `\newmthargsty{\mathrm}[mathsf]{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2]` = “Name<sub>sub</sub><sup>sup</sup>Ext1(*Arg*<sup>Ex<sup>Ex</sup></sup>)Ext2”
- `\newmthargsty{\mathrm}[mathtt]{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2]` = “Name<sub>sub</sub><sup>sup</sup>Ext1(*Arg*<sup>Ex<sup>Ex</sup></sup>)Ext2”
- `\newmthargsty*{\mathrm}{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2]` = “Name<sub>sub</sub><sup>sup</sup>Ext1(*Arg*<sup>Ex<sup>Ex</sup></sup>)Ext2”
- `\newmthargsty*{\mathrm}[mathsf]{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2]` = “Name<sub>sub</sub><sup>sup</sup>Ext1(*Arg*<sup>Ex<sup>Ex</sup></sup>)Ext2”
- `\newmthargsty*{\mathrm}[mathtt]{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2]` = “Name<sub>sub</sub><sup>sup</sup>Ext1(*Arg*<sup>Ex<sup>Ex</sup></sup>)Ext2”

- `\newmthoarg[mathrm]{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex</sup>Ex)”
- `\newmthoarg[mathsf]{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex</sup>Ex)”
- `\newmthoarg[mathtt]{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex</sup>Ex)”
- `\newmthoarg*[mathrm]{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex</sup>Ex)”
- `\newmthoarg*[mathsf]{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex</sup>Ex)”
- `\newmthoarg*[mathtt]{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex</sup>Ex)”

- `\newmthoargsty{\mathrm}{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex<sup>Ex</sup></sup>)”
- `\newmthoargsty{\mathsf}{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex<sup>Ex</sup></sup>)”
- `\newmthoargsty{\mathtt}{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex<sup>Ex</sup></sup>)”
- `\newmthoargsty*{\mathrm}{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex<sup>Ex</sup></sup>)”
- `\newmthoargsty*{\mathsf}{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex<sup>Ex</sup></sup>)”
- `\newmthoargsty*{\mathtt}{Name}[sub][sup][Arg^{Ex^{Ex}}]` = “Name<sub>sub</sub><sup>sup</sup>(Arg<sup>Ex<sup>Ex</sup></sup>)”

```

370 \newcommand{\newmthoargsty}
371   {\@ifstar{\@snewmthoargsty}{\@newmthoargsty}}
372 \newcommandx{\@newmthoargsty}[2][2=]
373   {\newmthoarg[\defval{#2}{#1}]}
374 \newcommandx{\@snewmthoargsty}[2][2=]
375   {\newmthoarg*[\defval{#2}{#1}]}

\newmthpar ... to do!

• \newmthpar[\mathrm]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthpar[\mathsf]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthpar[\mathtt]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthpar*[\mathrm]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthpar*[\mathsf]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthpar*[\mathtt]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”

376 \newcommand{\newmthpar}
377   {\@ifstar{\@snewmthpar}{\@newmthpar}}
378 \newcommandx{\@newmthpar}[7][1=, 3=, 4=, 5=, 7=]
379   {\newmth[#1]{#2}[#3][#4][\argmid{#5}\!\left[\right]{#6}{\right}\!\arglef{!}{#7}}]
380 \newcommandx{\@snewmthpar}[7][1=, 3=, 4=, 5=, 7=]
381   {\newmth[#1]{#2}[#3][#4][\argmid{#5}{#6}{#7}]}

```

\newmthparsty ... to do!

```

• \newmthparsty[\mathrm]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthparsty[\mathrm]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthparsty[\mathrm]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthparsty*[\mathrm]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthparsty*[\mathrm]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”
• \newmthparsty*[\mathrm]{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = “NamesupsubExt1[ParExEx]Ext2”

382 \newcommand{\newmthparsty}
383   {\@ifstar{\@snewmthparsty}{\@newmthparsty}}
384 \newcommandx{\@newmthparsty}[2][2=]
385   {\newmthpar[\defval{#2}{#1}]}
386 \newcommandx{\@snewmthparsty}[2][2=]
387   {\newmthpar*[\defval{#2}{#1}]}

```

\newmthopar ... to do!

```

• \newmthopar[\mathrm]{Name}[sub][sup][Par^{Ex^{Ex}}] = “Namesupsub[ParExEx]”
• \newmthopar[\mathsf]{Name}[sub][sup][Par^{Ex^{Ex}}] = “Namesupsub[ParExEx]”
• \newmthopar[\mathtt]{Name}[sub][sup][Par^{Ex^{Ex}}] = “Namesupsub[ParExEx]”
• \newmthopar*[\mathrm]{Name}[sub][sup][Par^{Ex^{Ex}}] = “Namesupsub[ParExEx]”
• \newmthopar*[\mathsf]{Name}[sub][sup][Par^{Ex^{Ex}}] = “Namesupsub[ParExEx]”
• \newmthopar*[\mathtt]{Name}[sub][sup][Par^{Ex^{Ex}}] = “Namesupsub[ParExEx]”

388 \newcommand{\newmthopar}
389   {\@ifstar{\@snewmthopar}{\@newmthopar}}
390 \newcommandx{\@newmthopar}[5][1=, 3=, 4=, 5=]
391   {\newmthpar[#1]{#2}[#3][#4][\argmid{#5}]}
392 \newcommandx{\@snewmthopar}[5][1=, 3=, 4=, 5=]
393   {\newmthpar*[#1]{#2}[#3][#4][\argmid{#5}]}

```

\newmthoparsty ... to do!

```

394 \newcommand{\newmthoparsty}
395   {\@ifstar{\@snewmthoparsty}{\@newmthoparsty}}
396 \newcommandx{\@newmthoparsty}[2][2=]
397   {\newmthopar[\defval{#2}{#1}]}
398 \newcommandx{\@snewmthoparsty}[2][2=]
399   {\newmthopar*[\defval{#2}{#1}]}

```

```

400 \newcommand{\mthsubsup}[2]
401   {\empchk{#1}_{#1}\empchk{#2}^{#2}}
402 %%*****%

```

- $\text{\textbackslash mth{Name}}_{\text{sub}}^{\text{sup}}[\text{Ext}] = \textit{Name}_{\text{sub}}^{\text{sup}}\textit{Ext}$
- $\text{\textbackslash mth{\bf{Name}}}_{\text{sub}}^{\text{sup}}[\text{Ext}] = \textbf{NAME}_{\text{sub}}^{\text{sup}}\textit{Ext}$
- $\text{\textbackslash mth{\mathtt{Name}}}_{\text{sub}}^{\text{sup}}[\text{Ext}] = \text{\textbackslash monospace} \text{NAME}_{\text{sub}}^{\text{sup}}\textit{Ext}$

- $\mathrm{\mtharg{Name}}_{\mathrm{sub}}^{\mathrm{sup}}[\mathrm{Ext1}]{\mathrm{Arg}^{\mathrm{Ex}}{\mathrm{Ex}}}{\mathrm{Ext2}} = \textit{Name}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}\left(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}}\right)\mathrm{Ext2}$
- $\mathrm{\mtharg{\mathbf{f}}{Name}}_{\mathrm{sub}}^{\mathrm{sup}}[\mathrm{Ext1}]{\mathrm{Arg}^{\mathrm{Ex}}{\mathrm{Ex}}}{\mathrm{Ext2}} = \textbf{Name}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}\left(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}}\right)\mathrm{Ext2}$
- $\mathrm{\mtharg{\mathtt{t}}{Name}}_{\mathrm{sub}}^{\mathrm{sup}}[\mathrm{Ext1}]{\mathrm{Arg}^{\mathrm{Ex}}{\mathrm{Ex}}}{\mathrm{Ext2}} = \textit{Name}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}\left(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}}\right)\mathrm{Ext2}$
- $\mathrm{\mtharg*{Name}}_{\mathrm{sub}}^{\mathrm{sup}}[\mathrm{Ext1}]{\mathrm{Arg}^{\mathrm{Ex}}{\mathrm{Ex}}}{\mathrm{Ext2}} = \textit{Name}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}})\mathrm{Ext2}$
- $\mathrm{\mtharg*{\mathbf{f}}{Name}}_{\mathrm{sub}}^{\mathrm{sup}}[\mathrm{Ext1}]{\mathrm{Arg}^{\mathrm{Ex}}{\mathrm{Ex}}}{\mathrm{Ext2}} = \textbf{Name}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}})\mathrm{Ext2}$
- $\mathrm{\mtharg*{\mathtt{t}}{Name}}_{\mathrm{sub}}^{\mathrm{sup}}[\mathrm{Ext1}]{\mathrm{Arg}^{\mathrm{Ex}}{\mathrm{Ex}}}{\mathrm{Ext2}} = \textit{Name}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}})\mathrm{Ext2}$

```

5 \newcommand{\mtharg}
6   {\@ifstar{\newmthargsty*{\mthsty}}{\newmthargsty{\mthsty}}

```

- $\backslash\text{mthoarg}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Arg}^{\sim}\{\text{Ex}^{\sim}\{\text{Ex}\}}] = \textit{“Name}_{sub}^{sup}\left(\textit{Arg}^{Ex^{Ex}}\right)”$
- $\backslash\text{mthoarg}[\text{mathbf}]{\{\text{Name}\}}[\text{sub}][\text{sup}][\text{Arg}^{\sim}\{\text{Ex}^{\sim}\{\text{Ex}\}}] = \textit{“Name}_{sub}^{sup}\left(\textit{Arg}^{Ex^{Ex}}\right)”$
- $\backslash\text{mthoarg}[\text{mathtt}]{\{\text{Name}\}}[\text{sub}][\text{sup}][\text{Arg}^{\sim}\{\text{Ex}^{\sim}\{\text{Ex}\}}] = \textit{“Name}_{sub}^{sup}\left(\textit{Arg}^{Ex^{Ex}}\right)”$
- $\backslash\text{mthoarg}^{*}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Arg}^{\sim}\{\text{Ex}^{\sim}\{\text{Ex}\}}] = \textit{“Name}_{sub}^{sup}(\textit{Arg}^{Ex^{Ex}})”$
- $\backslash\text{mthoarg}^{*}[\text{mathbf}]{\{\text{Name}\}}[\text{sub}][\text{sup}][\text{Arg}^{\sim}\{\text{Ex}^{\sim}\{\text{Ex}\}}] = \textit{“Name}_{sub}^{sup}(\textit{Arg}^{Ex^{Ex}})”$
- $\backslash\text{mthoarg}^{*}[\text{mathtt}]{\{\text{Name}\}}[\text{sub}][\text{sup}][\text{Arg}^{\sim}\{\text{Ex}^{\sim}\{\text{Ex}\}}] = \textit{“Name}_{sub}^{sup}(\textit{Arg}^{Ex^{Ex}})”$

```

7 \newcommand{\mthoarg}
8   {\@ifstar{\newmthoargsty*}{\mthsty}}{\newmthoargsty{\mthsty}}}

```

13

- $\backslash\mathit{mthpar}[\mathbf{mathtt}]{\text{Name}}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Par}}^{\text{Ex}}{\text{Ex}}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]\text{Ext2}$
- $\backslash\mathit{mthpar}[\mathbf{mathtt}]{\text{Name}}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Par}}^{\text{Ex}}{\text{Ex}}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]\text{Ext2}$
- $\backslash\mathit{mthpar}*\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Par}}^{\text{Ex}}{\text{Ex}}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]\text{Ext2}$
- $\backslash\mathit{mthpar}[\mathbf{matbf}]{\text{Name}}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Par}}^{\text{Ex}}{\text{Ex}}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]\text{Ext2}$
- $\backslash\mathit{mthpar}*\{\mathbf{mathtt}\}{\text{Name}}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Par}}^{\text{Ex}}{\text{Ex}}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]\text{Ext2}$

409  $\backslash\text{newcommand}\{\backslash\mathit{mthpar}\}$

410  $\{\backslash\text{ifstar}\{\backslash\text{newmthparsty}*\{\backslash\mathit{mthsty}\}\}\{\backslash\text{newmthparsty}\{\backslash\mathit{mthsty}\}\}\}$

$\backslash\mathit{mthopar}$  ... to do!

- $\backslash\mathit{mthopar}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Par}}^{\text{Ex}}{\text{Ex}}] = \text{Name}_{\text{sub}}^{\text{sup}}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]$
- $\backslash\mathit{mthopar}[\mathbf{matbf}]{\text{Name}}[\text{sub}][\text{sup}][\text{Par}}^{\text{Ex}}{\text{Ex}}] = \text{Name}_{\text{sub}}^{\text{sup}}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]$
- $\backslash\mathit{mthopar}[\mathbf{mathtt}]{\text{Name}}[\text{sub}][\text{sup}][\text{Par}}^{\text{Ex}}{\text{Ex}}] = \text{Name}_{\text{sub}}^{\text{sup}}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]$
- $\backslash\mathit{mthopar}*\{\text{Name}\}[\text{sub}][\text{sup}][\text{Par}}^{\text{Ex}}{\text{Ex}}] = \text{Name}_{\text{sub}}^{\text{sup}}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]$
- $\backslash\mathit{mthopar}[\mathbf{matbf}]{\text{Name}}[\text{sub}][\text{sup}][\text{Par}}^{\text{Ex}}{\text{Ex}}] = \text{Name}_{\text{sub}}^{\text{sup}}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]$
- $\backslash\mathit{mthopar}*\{\mathbf{mathtt}\}{\text{Name}}[\text{sub}][\text{sup}][\text{Par}}^{\text{Ex}}{\text{Ex}}] = \text{Name}_{\text{sub}}^{\text{sup}}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]$

411  $\backslash\text{newcommand}\{\backslash\mathit{mthopar}\}$

412  $\{\backslash\text{ifstar}\{\backslash\text{newmthoparsty}*\{\backslash\mathit{mthsty}\}\}\{\backslash\text{newmthoparsty}\{\backslash\mathit{mthsty}\}\}\}$

$\backslash\mathit{mthsty}$  ... to do!

413  $\backslash\text{newcommand}\{\backslash\mathit{mthsty}\}$

414  $\{\}$

415  $\%*****\%$

$\backslash\text{cmdmth}$  ... to do!

- $\backslash\text{cmdmth}\{\text{NewCmd}\}; \backslash\text{newcommand}\{\mathit{mthstyNewCmd}\}\{\backslash\mathbf{mathtt}\};$   
 $\backslash\mathit{mthNewCmd}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext}$

416  $\backslash\text{newcommand}\{\backslash\text{cmdmth}\}[1]$

417  $\{\backslash\text{csdef}\{\mathit{mth}\#1\}\{\backslash\text{newmthsty}\{\mathit{mthsty}\#1\}\}\}$

$\backslash\text{cmdmtharg}$  ... to do!

- $\backslash\text{cmdmtharg}\{\text{NewCmd}\}; \backslash\text{newcommand}\{\mathit{mthstyNewCmd}\}\{\backslash\mathbf{mathtt}\};$   
 $\backslash\mathit{mthargNewCmd}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Arg}}^{\text{Ex}}{\text{Ex}}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}\left(\text{Arg}^{\text{Ex}}{\text{Ex}}\right)\text{Ext2}$   
 $\backslash\mathit{mthargNewCmd}*\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Arg}}^{\text{Ex}}{\text{Ex}}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}\left(\text{Arg}^{\text{Ex}}{\text{Ex}}\right)\text{Ext2}$

418  $\backslash\text{newcommand}\{\backslash\text{cmdmtharg}\}[1]$

419  $\{\backslash\text{csdef}\{\mathit{mtharg}\#1\}\%$

420  $\{\backslash\text{ifstar}\{\backslash\text{newmthargsty}*\{\mathit{mthsty}\#1\}\}\{\backslash\text{newmthargsty}\{\mathit{mthsty}\#1\}\}\}\}$

$\backslash\text{cmdmthoarg}$  ... to do!

- $\backslash\text{cmdmthoarg}\{\text{NewCmd}\}; \backslash\text{newcommand}\{\mathit{mthstyNewCmd}\}\{\backslash\mathbf{mathtt}\};$   
 $\backslash\mathit{mthoargNewCmd}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Arg}}^{\text{Ex}}{\text{Ex}}] = \text{Name}_{\text{sub}}^{\text{sup}}\left(\text{Arg}^{\text{Ex}}{\text{Ex}}\right)$   
 $\backslash\mathit{mthoargNewCmd}*\{\text{Name}\}[\text{sub}][\text{sup}][\text{Arg}}^{\text{Ex}}{\text{Ex}}] = \text{Name}_{\text{sub}}^{\text{sup}}\left(\text{Arg}^{\text{Ex}}{\text{Ex}}\right)$

421  $\backslash\text{newcommand}\{\backslash\text{cmdmthoarg}\}[1]$

422  $\{\backslash\text{csdef}\{\mathit{mthoarg}\#1\}\%$

423  $\{\backslash\text{ifstar}\{\backslash\text{newmthoargsty}*\{\mathit{mthsty}\#1\}\}\{\backslash\text{newmthoargsty}\{\mathit{mthsty}\#1\}\}\}\}$

$\backslash\text{cmdmthpar}$  ... to do!

- $\backslash\text{cmdmthpar}\{\text{NewCmd}\}; \backslash\text{newcommand}\{\mathit{mthstyNewCmd}\}\{\backslash\mathbf{mathtt}\};$   
 $\backslash\mathit{mthparNewCmd}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Par}}^{\text{Ex}}{\text{Ex}}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]\text{Ext2}$   
 $\backslash\mathit{mthparNewCmd}*\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}]{\text{Par}}^{\text{Ex}}{\text{Ex}}[\text{Ext2}] = \text{Name}_{\text{sub}}^{\text{sup}}\text{Ext1}\left[\text{Par}^{\text{Ex}}{\text{Ex}}\right]\text{Ext2}$

```

424 \newcommand{\cmdmthpar}[1]
425   {\csdef{mthpar#1}%
426     {\@ifstar{\newmthparsty*{mthsty#1}}{\newmthparsty{mthsty#1}}}}

\cmdmthpar ... to do!
  • \cmdmthpar{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
    \mthparNewCmd{Name}[sub][sup][Par^{Ex^{Ex}}] = Name_{sub}^{sup}[Par^{Ex^{Ex}}]
    \mthparNewCmd*{Name}[sub][sup][Par^{Ex^{Ex}}] = Name_{sub}^{sup}[Par^{Ex^{Ex}}]
427 \newcommand{\cmdmthpar}[1]
428   {\csdef{mthpar#1}%
429     {\@ifstar{\newmthparsty*{mthsty#1}}{\newmthparsty{mthsty#1}}}}

\cmdmthall ... to do!
  • \cmdmthall{NewCmd}; \newcommand{mthstyNewCmd}{\mathtt};
    \mthNewCmd{Name}[sub][sup][Ext] = Name_{sub}^{sup}Ext
    \mthargNewCmd{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
    \mthargNewCmd*{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2
    \mthoargNewCmd{Name}[sub][sup][Arg^{Ex^{Ex}}] = Name_{sub}^{sup}(Arg^{Ex^{Ex}})
    \mthoargNewCmd*{Name}[sub][sup][Arg^{Ex^{Ex}}] = Name_{sub}^{sup}(Arg^{Ex^{Ex}})
    \mthparNewCmd{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2
    \mthparNewCmd*{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = Name_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2
    \mthoparNewCmd{Name}[sub][sup][Par^{Ex^{Ex}}] = Name_{sub}^{sup}[Par^{Ex^{Ex}}]
    \mthoparNewCmd*{Name}[sub][sup][Par^{Ex^{Ex}}] = Name_{sub}^{sup}[Par^{Ex^{Ex}}]
430 \newcommand{\cmdmthall}[1]
431   {\cmdmth{#1}\cmdmtharg{#1}\cmdmthoarg{#1}\cmdmthpar{#1}\cmdmthopar{#1}}
432 %%*****

\usrmth ... to do!
  • \usrmth{cmdName}{Suf}{}; \cmdNameSuf = cmdName
    \usrmth{cmdName}{Suf}{arg};
    \cmdNameSuf{Arg^{Ex^{Ex}}} = cmdName(Arg^{Ex^{Ex}})
    \cmdNameSuf*{Arg^{Ex^{Ex}}} = cmdName(Arg^{Ex^{Ex}})
    \usrmth{cmdName}{Suf}{par};
    \cmdNameSuf{Par^{Ex^{Ex}}} = cmdName[Par^{Ex^{Ex}}]
    \cmdNameSuf*{Par^{Ex^{Ex}}} = cmdName[Par^{Ex^{Ex}}]
  • \usrmth{cmdName}{Suf}{}[newName]; \cmdNameSuf = newName
    \usrmth{cmdName}{Suf}{arg}[newName];
    \cmdNameSuf{Arg^{Ex^{Ex}}} = newName(Arg^{Ex^{Ex}})
    \cmdNameSuf*{Arg^{Ex^{Ex}}} = newName(Arg^{Ex^{Ex}})
    \usrmth{cmdName}{Suf}{par}[newName];
    \cmdNameSuf{Par^{Ex^{Ex}}} = newName[Par^{Ex^{Ex}}]
    \cmdNameSuf*{Par^{Ex^{Ex}}} = newName[Par^{Ex^{Ex}}]
433 \newcommandx{\usrmth}[4][4=]
434   {\csdef{#1#2}{%
435     \@ifstar%
436       {\csname mth#3\endcsname*{\defval{#4}{#1}}}%
437       {\csname mth#3\endcsname{\defval{#4}{#1}}}%
438   }}
439 %%*****

\usrmthlatlow ... to do!
440 \newcommandx{\usrmthlatlow}[4][4=]
441   {\usrmth{#1}{#2}{#3}[#4]\seqoflatlow{#1#2}{mth#3}}

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\usrmthlatupp ... to do!
442 \newcommandx{\usrmthlatupp}[4][4=]
443 {\usrmth{#1}{#2}{#3}[#4]\seqoflatupp{#1#2}{mth#3}}

\usrmthlatlet ... to do!
444 \newcommandx{\usrmthlatlet}[4][4=]
445 {\usrmth{#1}{#2}{#3}[#4]\seqoflatlet{#1#2}{mth#3}}

\usrmthgrklow ... to do!
446 \newcommandx{\usrmthgrklow}[4][4=]
447 {\usrmth{#1}{#2}{#3}[#4]\seqofgrklow{#1#2}{mth#3}}

\usrmthgrkupp ... to do!
448 \newcommandx{\usrmthgrkupp}[4][4=]
449 {\usrmth{#1}{#2}{#3}[#4]\seqofgrkupp{#1#2}{mth#3}}

\usrmthgrklet ... to do!
450 \newcommandx{\usrmthgrklet}[4][4=]
451 {\usrmth{#1}{#2}{#3}[#4]\seqofgrklet{#1#2}{mth#3}}

\usrmthlow ... to do!
452 \newcommandx{\usrmthlow}[4][4=]
453 {\usrmth{#1}{#2}{#3}[#4]\seqoflow{#1#2}{mth#3}}

\usrmthupp ... to do!
454 \newcommandx{\usrmthupp}[4][4=]
455 {\usrmth{#1}{#2}{#3}[#4]\seqofupp{#1#2}{mth#3}}

\usrmthlet ... to do!
456 \newcommandx{\usrmthlet}[4][4=]
457 {\usrmth{#1}{#2}{#3}[#4]\seqoflet{#1#2}{mth#3}}

458 %%*****%
459 %%*****%
460 %%** Text Macro Generators *****%
461 %%*****%
462 \iftxtgen@

\txtdf, ... ... to do!
• \txtdf{Name}[sub][sup][Ext] =  $Name_{sub}^{sup}Ext$ 
• \txtdf{Name}[sub][sup][Ext1]{Arg}[Ext2] =  $Name_{sub}^{sup}Ext1(Arg)Ext2$ 
• \txtdf{Name}[sub][sup][Ext1]{Par}[Ext2] =  $Name_{sub}^{sup}Ext1[Par]Ext2$ 

463 %% Style for Definitions
464 \cmdtxtall{def}\newcommand{\txtstydef}{\normalfont\bfseries\em}

\cmdtxtdef ... to do!
• \cmdtxtdef{cmdName};
  \cmdName[sub][sub][ext] =  $cmdName_{sub}^{sub}ext$ 
• \cmdtxtdef{cmdName}[newName];
  \cmdName[sub][sub][ext] =  $newName_{sub}^{sub}ext$ 

465 \newcommandx{\cmdtxtdef}[2][2=]
466 {\usrtxt{#1}{def}[#2]}

\cmdtxtargdef ... to do!
• \cmdtxtargdef{cmdName};
  \cmdName[sub][sub][ext1]{arg}[ext2] =  $cmdName_{sub}^{sub}ext1(arg)ext2$ 
• \cmdtxtargdef{cmdName}[newName];
  \cmdName[sub][sub][ext1]{arg}[ext2] =  $newName_{sub}^{sub}ext1(arg)ext2$ 

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467 \newcommandx{\cmdtxtargdef}[2][2=]
468   {\usrtxt{#1}{\argdef}[#2]}

\cmdtxttoargdef ... to do!
  • \cmdtxttoargdef{cmdName};
    \cmdName[sub][sub][arg] =  $cmdName_{sub}^{sub}(arg)$ 
  • \cmdtxttoargdef{cmdName}[newName];
    \cmdName[sub][sub][arg] =  $newName_{sub}^{sub}(arg)$ 
469 \newcommandx{\cmdtxttoargdef}[2][2=]
470   {\usrtxt{#1}{\oargdef}[#2]}

\cmdtxtpardef ... to do!
  • \cmdtxtpardef{cmdName};
    \cmdName[sub][sub][ext1]{par}[ext2] =  $cmdName_{sub}^{sub}ext1[par]ext2$ 
  • \cmdtxtpardef{cmdName}[newName];
    \cmdName[sub][sub][ext1]{par}[ext2] =  $newName_{sub}^{sub}ext1[par]ext2$ 
471 \newcommandx{\cmdtxtpardef}[2][2=]
472   {\usrtxt{#1}{\pardef}[#2]}

\cmdtxtopardef ... to do!
  • \cmdtxtopardef{cmdName};
    \cmdName[sub][sub][par] =  $cmdName_{sub}^{sub}[par]$ 
  • \cmdtxtopardef{cmdName}[newName];
    \cmdName[sub][sub][par] =  $newName_{sub}^{sub}[par]$ 
473 \newcommandx{\cmdtxtopardef}[2][2=]
474   {\usrtxt{#1}{\opardef}[#2]}

\txtabr, ... ... to do!
  • \txtabr{Name}[sub][sup][Ext] =  $Name_{sub}^{sup}Ext$ 
  • \txtargabr{Name}[sub][sup][Ext1]{Arg}[Ext2] =  $Name_{sub}^{sup}Ext1(Arg)Ext2$ 
  • \txtparabr{Name}[sub][sup][Ext1]{Par}[Ext2] =  $Name_{sub}^{sup}Ext1[Par]Ext2$ 
475 %% Style for Abbreviations
476 \cmdtxtall{abr}\newcommand{\txtstyabr}{\em}

\cmdtxtabr ... to do!
  • \cmdtxtabr{cmdName};
    \cmdName[sub][sub][ext] =  $cmdName_{sub}^{sub}ext$ 
  • \cmdtxtabr{cmdName}[newName];
    \cmdName[sub][sub][ext] =  $newName_{sub}^{sub}ext$ 
477 \newcommandx{\cmdtxtabr}[2][2=]
478   {\usrtxt{#1}{\abr}[#2]}

\cmdtxtargabr ... to do!
  • \cmdtxtargabr{cmdName};
    \cmdName[sub][sub][ext1]{arg}[ext2] =  $cmdName_{sub}^{sub}ext1(arg)ext2$ 
  • \cmdtxtargabr{cmdName}[newName];
    \cmdName[sub][sub][ext1]{arg}[ext2] =  $newName_{sub}^{sub}ext1(arg)ext2$ 
479 \newcommandx{\cmdtxtargabr}[2][2=]
480   {\usrtxt{#1}{\argabr}[#2]}

\cmdtxttoargabr ... to do!
  • \cmdtxttoargabr{cmdName};
    \cmdName[sub][sub][arg] =  $cmdName_{sub}^{sub}(arg)$ 
  • \cmdtxttoargabr{cmdName}[newName];
    \cmdName[sub][sub][arg] =  $newName_{sub}^{sub}(arg)$ 
481 \newcommandx{\cmdtxttoargabr}[2][2=]
482   {\usrtxt{#1}{\oargabr}[#2]}

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\cmdtxtparabr ... to do!
    • \cmdtxtparabr{cmdName};
      \cmdName[sub][sub][ext1]{par}[ext2] =  $\text{cmdName}_{\text{sub}}^{\text{sub}} \text{ext1}[\text{par}]\text{ext2}$ 
    • \cmdtxtparabr{cmdName}[newName];
      \cmdName[sub][sub][ext1]{par}[ext2] =  $\text{newName}_{\text{sub}}^{\text{sub}} \text{ext1}[\text{par}]\text{ext2}$ 
483 \newcommandx{\cmdtxtparabr}[2][2=]
484   {\usrtxt{#1}{-}{parabr}[#2]}

\cmdtxtoparabr ... to do!
    • \cmdtxtoparabr{cmdName};
      \cmdName[sub][sub][par] =  $\text{cmdName}_{\text{sub}}^{\text{sub}}[\text{par}]$ 
    • \cmdtxtoparabr{cmdName}[newName];
      \cmdName[sub][sub][par] =  $\text{newName}_{\text{sub}}^{\text{sub}}[\text{par}]$ 
485 \newcommandx{\cmdtxtoparabr}[2][2=]
486   {\usrtxt{#1}{-}{oparabr}[#2]}

487 %%*****%

\txtname, ... ... to do!
    • \txtname{Name}[sub][sup][Ext] =  $\text{NAME}_{\text{SUB}}^{\text{SUP}}\text{EXT}$ 
    • \txtargname{Name}[sub][sup][Ext1]{Arg}[Ext2] =  $\text{NAME}_{\text{SUB}}^{\text{SUP}}\text{EXT1}(\text{ARG})\text{EXT2}$ 
    • \txtparname{Name}[sub][sup][Ext1]{Par}[Ext2] =  $\text{NAME}_{\text{SUB}}^{\text{SUP}}\text{EXT1}[\text{PAR}]\text{EXT2}$ 
488 %% Style for Names
489 \cmdtxtall{name}\newcommand{\txtstyname}{\normalfont\mdseries\scshape\sffamily}

\cmdtxtname ... to do!
    • \cmdtxtname{cmdName};
      \cmdName[sub][sub][ext] =  $\text{CMDNAME}_{\text{SUB}}^{\text{SUB}}\text{EXT}$ 
    • \cmdtxtname{cmdName}[newName];
      \cmdName[sub][sub][ext] =  $\text{NEWNAME}_{\text{SUB}}^{\text{SUB}}\text{EXT}$ 
490 \newcommandx{\cmdtxtname}[2][2=]
491   {\usrtxt{#1}{-}{name}[#2]}

\cmdtxtargname ... to do!
    • \cmdtxtargname{cmdName};
      \cmdName[sub][sub][ext1]{arg}[ext2] =  $\text{CMDNAME}_{\text{SUB}}^{\text{SUB}}\text{EXT1}(\text{ARG})\text{EXT2}$ 
    • \cmdtxtargname{cmdName}[newName];
      \cmdName[sub][sub][ext1]{arg}[ext2] =  $\text{NEWNAME}_{\text{SUB}}^{\text{SUB}}\text{EXT1}(\text{ARG})\text{EXT2}$ 
492 \newcommandx{\cmdtxtargname}[2][2=]
493   {\usrtxt{#1}{-}{argname}[#2]}

\cmdtxtoargname ... to do!
    • \cmdtxtoargname{cmdName};
      \cmdName[sub][sub][arg] =  $\text{CMDNAME}_{\text{SUB}}^{\text{SUB}}(\text{ARG})$ 
    • \cmdtxtoargname{cmdName}[newName];
      \cmdName[sub][sub][arg] =  $\text{NEWNAME}_{\text{SUB}}^{\text{SUB}}(\text{ARG})$ 
494 \newcommandx{\cmdtxtoargname}[2][2=]
495   {\usrtxt{#1}{-}{oargname}[#2]}

\cmdtxtparname ... to do!
    • \cmdtxtparname{cmdName};
      \cmdName[sub][sub][ext1]{par}[ext2] =  $\text{CMDNAME}_{\text{SUB}}^{\text{SUB}}\text{EXT1}[\text{PAR}]\text{EXT2}$ 
    • \cmdtxtparname{cmdName}[newName];
      \cmdName[sub][sub][ext1]{par}[ext2] =  $\text{NEWNAME}_{\text{SUB}}^{\text{SUB}}\text{EXT1}[\text{PAR}]\text{EXT2}$ 
496 \newcommandx{\cmdtxtparname}[2][2=]
497   {\usrtxt{#1}{-}{parname}[#2]}

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\cmdtxtoparname ... to do!
    • \cmdtxtoparname{cmdName};
      \cmdName[sub][sub][par] = CMDNAMESUB[PAR]
    • \cmdtxtoparname{cmdName}[newName];
      \cmdName[sub][sub][par] = NEWNAMESUB[PAR]
498 \newcommandx{\cmdtxtoparname}[2][2=]
499   {\usrtxt{#1}{-}{oparname}{#2}}

\txtcom, ... ... to do!
    • \txtcom{Name}[sub][sup][Ext] = NAMESUBEXT
    • \txtargcom{Name}[sub][sup][Ext1]{Arg}[Ext2] = NAMESUBEXT1(ARG)EXT2
    • \txtparcom{Name}[sub][sup][Ext1]{Par}[Ext2] = NAMESUBEXT1[PAR]EXT2
500 %% Style for Complexities
501 \cmdtxtall{com}\newcommand{\txtstycom}{\normalfont\mdseries\scshape\rmfamily}

\cmdtxtcom ... to do!
    • \cmdtxtcom{cmdName};
      \cmdName[sub][sub][ext] = CMDNAMESUBEXT
    • \cmdtxtcom{cmdName}[newName];
      \cmdName[sub][sub][ext] = NEWNAMESUBEXT
502 \newcommandx{\cmdtxtcom}[2][2=]
503   {\usrtxt{#1}{-}{com}{#2}}

\cmdtxtargcom ... to do!
    • \cmdtxtargcom{cmdName};
      \cmdName[sub][sub][ext1]{arg}[ext2] = CMDNAMESUBEXT1(ARG)EXT2
    • \cmdtxtargcom{cmdName}[newName];
      \cmdName[sub][sub][ext1]{arg}[ext2] = NEWNAMESUBEXT1(ARG)EXT2
504 \newcommandx{\cmdtxtargcom}[2][2=]
505   {\usrtxt{#1}{-}{argcom}{#2}}

\cmdtxtoargcom ... to do!
    • \cmdtxtoargcom{cmdName};
      \cmdName[sub][sub][arg] = CMDNAMESUB(ARG)
    • \cmdtxtoargcom{cmdName}[newName];
      \cmdName[sub][sub][arg] = NEWNAMESUB(ARG)
506 \newcommandx{\cmdtxtoargcom}[2][2=]
507   {\usrtxt{#1}{-}{oargcom}{#2}}

\cmdtxtparcom ... to do!
    • \cmdtxtparcom{cmdName};
      \cmdName[sub][sub][ext1]{par}[ext2] = CMDNAMESUBEXT1[PAR]EXT2
    • \cmdtxtparcom{cmdName}[newName];
      \cmdName[sub][sub][ext1]{par}[ext2] = NEWNAMESUBEXT1[PAR]EXT2
508 \newcommandx{\cmdtxtparcom}[2][2=]
509   {\usrtxt{#1}{-}{parcom}{#2}}

\cmdtxtoparcom ... to do!
    • \cmdtxtoparcom{cmdName};
      \cmdName[sub][sub][par] = CMDNAMESUB[PAR]
    • \cmdtxtoparcom{cmdName}[newName];
      \cmdName[sub][sub][par] = NEWNAMESUB[PAR]
510 \newcommandx{\cmdtxtoparcom}[2][2=]
511   {\usrtxt{#1}{-}{oparcom}{#2}}

512 \fi
513 %%*****%

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514 %*****%
515 %** Math Macro Generators *****%
516 %*****%
517 \ifmthgen@

```

\mthname, ... to do!

- \mthname{NAME}[sub][sup][Ext] =  $\mathcal{NAME}_{sub}^{sup}Ext$
- \mthargname{NAME}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] =  $\mathcal{NAME}_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2$
- \mthargname\*{NAME}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] =  $\mathcal{NAME}_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2$
- \mthparname{NAME}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] =  $\mathcal{NAME}_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2$
- \mthparname\*{NAME}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] =  $\mathcal{NAME}_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2$

518 % Style for Names

519 \cmdmthall{name}\newcommand{\mthstname}{\mathcal}

\Aname, ... to do!

$A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z$

520 \seqoflatupp{Name}{mthname}

\cmdmthname ... to do!

- \cmdmthname{CMDNAME};  
 $\text{CMDNAME}_{sub}[sub][ext] = \mathcal{CMDNAME}_{sub}^{sub}ext$
- \cmdmthname{cmdName}{NEWNAME};  
 $\text{cmdName}_{sub}[sub][ext] = \mathcal{NEWNAME}_{sub}^{sub}ext$

521 \newcommandx{\cmdmthname}[2][2=]

522 {\usrmth{#1}{Name}{name}[#2]}

\cmdmthargname ... to do!

- \cmdmthargname{CMDNAME};  
 $\text{CMDNAME}_{sub}[sub][ext1]{arg}[ext2] = \mathcal{CMDNAME}_{sub}^{sub}ext1(arg)ext2$
- \cmdmthargname{cmdName}{NEWNAME};  
 $\text{cmdName}_{sub}[sub][ext1]{arg}[ext2] = \mathcal{NEWNAME}_{sub}^{sub}ext1(arg)ext2$

523 \newcommandx{\cmdmthargname}[2][2=]

524 {\usrmth{#1}{Name}{argname}[#2]}

\cmdmthoargname ... to do!

- \cmdmthoargname{CMDNAME};  
 $\text{CMDNAME}_{sub}[sub][arg] = \mathcal{CMDNAME}_{sub}^{sub}(arg)$
- \cmdmthoargname{cmdName}{NEWNAME};  
 $\text{cmdName}_{sub}[sub][arg] = \mathcal{NEWNAME}_{sub}^{sub}(arg)$

525 \newcommandx{\cmdmthoargname}[2][2=]

526 {\usrmth{#1}{Name}{oargname}[#2]}

\cmdmthparname ... to do!

- \cmdmthparname{CMDNAME};  
 $\text{CMDNAME}_{sub}[sub][ext1]{par}[ext2] = \mathcal{CMDNAME}_{sub}^{sub}ext1[par]ext2$
- \cmdmthparname{cmdName}{NEWNAME};  
 $\text{cmdName}_{sub}[sub][ext1]{par}[ext2] = \mathcal{NEWNAME}_{sub}^{sub}ext1[par]ext2$

527 \newcommandx{\cmdmthparname}[2][2=]

528 {\usrmth{#1}{Name}{parname}[#2]}

\cmdmthoparname ... to do!

- \cmdmthoparname{CMDNAME};  
 $\text{CMDNAME}_{sub}[sub][par] = \mathcal{CMDNAME}_{sub}^{sub}[par]$
- \cmdmthoparname{cmdName}{NEWNAME};  
 $\text{cmdName}_{sub}[sub][par] = \mathcal{NEWNAME}_{sub}^{sub}[par]$

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529 \newcommandx{\cmdmthoparname}[2][2=]
530   {\usrmth{#1}{Name}{oparname}[#2]}

\mthfam, ... ... to do!
  • \mthfam{NAME}[sub][sup][Ext] =  $\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sup}Ext$ 
  • \mthargfam{NAME}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] =  $\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sup}Ext1\left(Arg^{Ex^{Ex}}\right)Ext2$ 
  • \mthargfam*{NAME}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] =  $\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sup}Ext1\left(Arg^{Ex^{Ex}}\right)Ext2$ 
  • \mthparfam{NAME}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] =  $\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sup}Ext1\left[Par^{Ex^{Ex}}\right]Ext2$ 
  • \mthparfam*{NAME}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] =  $\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sup}Ext1\left[Par^{Ex^{Ex}}\right]Ext2$ 
531 %% Style for Families
532 \cmdmthall{fam}\newcommand{\mthstyfam}{\mathscr}

\AFam, ... ... to do!
 $\mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}, \mathcal{E}, \mathcal{F}, \mathcal{G}, \mathcal{H}, \mathcal{I}, \mathcal{J}, \mathcal{K}, \mathcal{L}, \mathcal{M}, \mathcal{N}, \mathcal{O}, \mathcal{P}, \mathcal{Q}, \mathcal{R}, \mathcal{S}, \mathcal{T}, \mathcal{U}, \mathcal{V}, \mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Z}$ 
533 \seqoflatupp{Fam}{mthfam}

\cmdmthfam ... to do!
  • \cmdmthfam{CMDNAME};
    \CMDNAMEFam[sub][sub][ext] =  $\mathcal{C}\mathcal{M}\mathcal{D}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}ext$ 
  • \cmdmthfam{cmdName}{NEWNAME};
    \cmdNameFam[sub][sub][ext] =  $\mathcal{N}\mathcal{E}\mathcal{W}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}ext$ 
534 \newcommandx{\cmdmthfam}[2][2=]
535   {\usrmth{#1}{Fam}{fam}[#2]}

\cmdmthargfam ... to do!
  • \cmdmthargfam{CMDNAME};
    \CMDNAMEFam[sub][sub][ext1]{arg}[ext2] =  $\mathcal{C}\mathcal{M}\mathcal{D}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}ext1(arg)ext2$ 
  • \cmdmthargfam{cmdName}{NEWNAME};
    \cmdNameFam[sub][sub][ext1]{arg}[ext2] =  $\mathcal{N}\mathcal{E}\mathcal{W}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}ext1(arg)ext2$ 
536 \newcommandx{\cmdmthargfam}[2][2=]
537   {\usrmth{#1}{Fam}{argfam}[#2]}

\cmdmthoargfam ... to do!
  • \cmdmthoargfam{CMDNAME};
    \CMDNAMEFam[sub][sub][arg] =  $\mathcal{C}\mathcal{M}\mathcal{D}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}(arg)$ 
  • \cmdmthoargfam{cmdFam}{NEWNAME};
    \cmdFamFam[sub][sub][arg] =  $\mathcal{N}\mathcal{E}\mathcal{W}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}(arg)$ 
538 \newcommandx{\cmdmthoargfam}[2][2=]
539   {\usrmth{#1}{Fam}{oargfam}[#2]}

\cmdmthparfam ... to do!
  • \cmdmthparfam{CMDNAME};
    \CMDNAMEFam[sub][sub][ext1]{par}[ext2] =  $\mathcal{C}\mathcal{M}\mathcal{D}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}ext1[par]ext2$ 
  • \cmdmthparfam{cmdName}{NEWNAME};
    \cmdNameFam[sub][sub][ext1]{par}[ext2] =  $\mathcal{N}\mathcal{E}\mathcal{W}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}ext1[par]ext2$ 
540 \newcommandx{\cmdmthparfam}[2][2=]
541   {\usrmth{#1}{Fam}{parfam}[#2]}

\cmdmthoparfam ... to do!
  • \cmdmthoparfam{CMDNAME};
    \CMDNAMEFam[sub][sub][par] =  $\mathcal{C}\mathcal{M}\mathcal{D}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}[par]$ 
  • \cmdmthoparfam{cmdFam}{NEWNAME};
    \cmdFamFam[sub][sub][par] =  $\mathcal{N}\mathcal{E}\mathcal{W}\mathcal{N}\mathcal{A}\mathcal{M}\mathcal{E}_{sub}^{sub}[par]$ 
542 \newcommandx{\cmdmthoparfam}[2][2=]
543   {\usrmth{#1}{Fam}{oparfam}[#2]}

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\mthcls, ... ... to do!
    • \mthcls{NAME}[sub][sup][Ext] =  $\mathcal{NAME}_{sub}^{sup}Ext$ 
    • \mthargcls{NAME}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] =  $\mathcal{NAME}_{sub}^{sup}Ext1\left(Arg^{Ex^{Ex}}\right)Ext2$ 
    • \mthargcls*{NAME}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] =  $\mathcal{NAME}_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2$ 
    • \mthparcls{NAME}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] =  $\mathcal{NAME}_{sub}^{sup}Ext1\left[Par^{Ex^{Ex}}\right]Ext2$ 
    • \mthparcls*{NAME}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] =  $\mathcal{NAME}_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2$ 
544 %% Style for Classes
545 \cmdmthall{cls}\newcommand{\mthstycls}{\matheus}

\ACls, ... ... 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
546 \seqoflatupp{Cls}{mthcls}

\cmdmthcls ... to do!
    • \cmdmthcls{CMDNAME};
      \CMDNAMECls[sub][sub][ext] =  $\mathcal{CMDNAME}_{sub}^{sub}ext$ 
    • \cmdmthcls{cmdName}[NEWNAME];
      \cmdNameCls[sub][sub][ext] =  $\mathcal{NEWNAME}_{sub}^{sub}ext$ 
547 \newcommandx{\cmdmthcls}[2][2=]
548   {\usrmth{#1}{Cls}{cls}[#2]}

\cmdmthargcls ... to do!
    • \cmdmthargcls{CMDNAME};
      \CMDNAMECls[sub][sub][ext1]{arg}[ext2] =  $\mathcal{CMDNAME}_{sub}^{sub}ext1(arg)ext2$ 
    • \cmdmthargcls{cmdName}[NEWNAME];
      \cmdNameCls[sub][sub][ext1]{arg}[ext2] =  $\mathcal{NEWNAME}_{sub}^{sub}ext1(arg)ext2$ 
549 \newcommandx{\cmdmthargcls}[2][2=]
550   {\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] =  $\mathcal{NEWNAME}_{sub}^{sub}(arg)$ 
551 \newcommandx{\cmdmthoargcls}[2][2=]
552   {\usrmth{#1}{Cls}{oargcls}[#2]}

\cmdmthparcls ... to do!
    • \cmdmthparcls{CMDNAME};
      \CMDNAMECls[sub][sub][ext1]{par}[ext2] =  $\mathcal{CMDNAME}_{sub}^{sub}ext1[par]ext2$ 
    • \cmdmthparcls{cmdName}[NEWNAME];
      \cmdNameCls[sub][sub][ext1]{par}[ext2] =  $\mathcal{NEWNAME}_{sub}^{sub}ext1[par]ext2$ 
553 \newcommandx{\cmdmthparcls}[2][2=]
554   {\usrmth{#1}{Cls}{parcls}[#2]}

\cmdmthoparcls ... to do!
    • \cmdmthoparcls{CMDNAME};
      \CMDNAMECls[sub][sub][par] =  $\mathcal{CMDNAME}_{sub}^{sub}[par]$ 
    • \cmdmthoparcls{cmdCls}[NEWNAME];
      \cmdClsCls[sub][sub][par] =  $\mathcal{NEWNAME}_{sub}^{sub}[par]$ 
555 \newcommandx{\cmdmthoparcls}[2][2=]
556   {\usrmth{#1}{Cls}{oparcls}[#2]}

\mthsig, ... ... to do!
    • \mthsig{Name}[sub][sup][Ext] =  $\mathcal{ame}_{sub}^{sup}Ext$ 

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- $\backslash\mathrm{mthargsig}\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}}\}[\mathrm{Ext2}] = \mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}\left(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}}\right)\mathrm{Ext2}$
- $\backslash\mathrm{mthargsig}^*\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}}\}[\mathrm{Ext2}] = \mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}\left(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}}\right)\mathrm{Ext2}$
- $\backslash\mathrm{mthparsig}\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}\}[\mathrm{Ext2}] = \mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}\left[\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}\right]\mathrm{Ext2}$
- $\backslash\mathrm{mthparsig}^*\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}\}[\mathrm{Ext2}] = \mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}\left[\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}\right]\mathrm{Ext2}$

557 %% Style for Signatures

558  $\backslash\mathrm{cmdmthall}\{\mathrm{sig}\}\backslash\mathrm{newcommand}\{\mathrm{mthstysig}\}\{\mathrm{mathpzc}\}$

$\backslash\mathrm{aSig}$ , ... ... to do!

$a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z$   
 $\mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}, \mathcal{E}, \mathcal{F}, \mathcal{G}, \mathcal{H}, \mathcal{I}, \mathcal{J}, \mathcal{K}, \mathcal{L}, \mathcal{M}, \mathcal{N}, \mathcal{O}, \mathcal{P}, \mathcal{Q}, \mathcal{R}, \mathcal{S}, \mathcal{T}, \mathcal{U}, \mathcal{V}, \mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Z}$   
 $\alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega$

559  $\backslash\mathrm{seqoflatlet}\{\mathrm{Sig}\}\{\mathrm{mthsig}\}\backslash\mathrm{seqofgrklow}\{\mathrm{Sig}\}\{\mathrm{mthsig}\}$

$\backslash\mathrm{cmdmthsig}$  ... to do!

- $\backslash\mathrm{cmdmthsig}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathrm{cmd}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext}$
- $\backslash\mathrm{cmdmthsig}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathcal{N}\mathrm{ew}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext}$

560  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthsig}\}[2][2=]$

561  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Sig}\}\{\mathrm{sig}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthargsig}$  ... to do!

- $\backslash\mathrm{cmdmthargsig}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{arg}\}[\mathrm{ext2}] = \mathrm{cmd}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext1}(\mathrm{arg})\mathrm{ext2}$
- $\backslash\mathrm{cmdmthargsig}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{arg}\}[\mathrm{ext2}] = \mathcal{N}\mathrm{ew}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext1}(\mathrm{arg})\mathrm{ext2}$

562  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthargsig}\}[2][2=]$

563  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Sig}\}\{\mathrm{argsig}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthoargsig}$  ... to do!

- $\backslash\mathrm{cmdmthoargsig}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{arg}] = \mathrm{cmd}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}(\mathrm{arg})$
- $\backslash\mathrm{cmdmthoargsig}\{\mathrm{cmdSig}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdSigSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{arg}] = \mathcal{N}\mathrm{ew}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}(\mathrm{arg})$

564  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthoargsig}\}[2][2=]$

565  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Sig}\}\{\mathrm{oargsig}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthparsig}$  ... to do!

- $\backslash\mathrm{cmdmthparsig}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{par}\}[\mathrm{ext2}] = \mathrm{cmd}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext1}[\mathrm{par}]\mathrm{ext2}$
- $\backslash\mathrm{cmdmthparsig}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{par}\}[\mathrm{ext2}] = \mathcal{N}\mathrm{ew}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext1}[\mathrm{par}]\mathrm{ext2}$

566  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthparsig}\}[2][2=]$

567  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Sig}\}\{\mathrm{parsig}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthoparsig}$  ... to do!

- $\backslash\mathrm{cmdmthoparsig}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{par}] = \mathrm{cmd}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}[\mathrm{par}]$
- $\backslash\mathrm{cmdmthoparsig}\{\mathrm{cmdSig}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdSigSig}[\mathrm{sub}][\mathrm{sub}][\mathrm{par}] = \mathcal{N}\mathrm{ew}\mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sub}}[\mathrm{par}]$

568  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthoparsig}\}[2][2=]$

569  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Sig}\}\{\mathrm{oparsig}\}\{\#2\}\}$

$\backslash\mathrm{mthstr}$ , ... ... to do!

- $\backslash\mathrm{mthstr}\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext}] = \mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext}$
- $\backslash\mathrm{mthargstr}\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}}\}[\mathrm{Ext2}] = \mathcal{N}\mathrm{ame}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}\left(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}}\right)\mathrm{Ext2}$

- $\backslash\mathrm{mthargstr}\{Name\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Arg}^{\mathrm{Ex}}\{\mathrm{Ex}\}\}[\mathrm{Ext2}] = \mathfrak{Name}_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2$
- $\backslash\mathrm{mthparstr}\{Name\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Par}^{\mathrm{Ex}}\{\mathrm{Ex}\}\}[\mathrm{Ext2}] = \mathfrak{Name}_{sub}^{sup}Ext1\left[Par^{Ex^{Ex}}\right]Ext2$
- $\backslash\mathrm{mthparstr}\{Name\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Par}^{\mathrm{Ex}}\{\mathrm{Ex}\}\}[\mathrm{Ext2}] = \mathfrak{Name}_{sub}^{sup}Ext1[Par^{Ex^{Ex}}]Ext2$

570 %% Style for Structures

571  $\backslash\mathrm{cmdmthall}\{\mathrm{str}\}\backslash\mathrm{newcommand}\{\backslash\mathrm{mthstyststr}\}\{\mathrm{mathfrakak}\}$

$\backslash\mathrm{aStr}, \dots$  ... 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  
 $\mathfrak{A}, \mathfrak{B}, \mathfrak{C}, \mathfrak{D}, \mathfrak{E}, \mathfrak{F}, \mathfrak{G}, \mathfrak{H}, \mathfrak{I}, \mathfrak{J}, \mathfrak{K}, \mathfrak{L}, \mathfrak{M}, \mathfrak{N}, \mathfrak{O}, \mathfrak{P}, \mathfrak{Q}, \mathfrak{R}, \mathfrak{S}, \mathfrak{T}, \mathfrak{U}, \mathfrak{V}, \mathfrak{W}, \mathfrak{X}, \mathfrak{Y}, \mathfrak{Z}$   
 $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega$   
572  $\backslash\mathrm{seqoflatlet}\{\mathrm{Str}\}\{\mathrm{mthstr}\}\backslash\mathrm{seqofgrklow}\{\mathrm{Str}\}\{\mathrm{mthstr}\}$

$\backslash\mathrm{cmdmthstr}$  ... to do!

- $\backslash\mathrm{cmdmthstr}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathrm{cmd}\mathfrak{Name}_{sub}^{sub}ext$
- $\backslash\mathrm{cmdmthstr}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathfrak{New}\mathfrak{Name}_{sub}^{sub}ext$

573  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthstr}\}[2][2=]$

574  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Str}\}\{\mathrm{str}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthargstr}$  ... to do!

- $\backslash\mathrm{cmdmthargstr}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{arg}\}[\mathrm{ext2}] = \mathrm{cmd}\mathfrak{Name}_{sub}^{sub}ext1(arg)ext2$
- $\backslash\mathrm{cmdmthargstr}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{arg}\}[\mathrm{ext2}] = \mathfrak{New}\mathfrak{Name}_{sub}^{sub}ext1(arg)ext2$

575  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthargstr}\}[2][2=]$

576  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Str}\}\{\mathrm{argstr}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthoargstr}$  ... to do!

- $\backslash\mathrm{cmdmthoargstr}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{arg}] = \mathrm{cmd}\mathfrak{Name}_{sub}^{sub}(arg)$
- $\backslash\mathrm{cmdmthoargstr}\{\mathrm{cmdStr}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdStrStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{arg}] = \mathfrak{New}\mathfrak{Name}_{sub}^{sub}(arg)$

577  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthoargstr}\}[2][2=]$

578  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Str}\}\{\mathrm{oargstr}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthparstr}$  ... to do!

- $\backslash\mathrm{cmdmthparstr}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{par}\}[\mathrm{ext2}] = \mathrm{cmd}\mathfrak{Name}_{sub}^{sub}ext1[par]ext2$
- $\backslash\mathrm{cmdmthparstr}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{par}\}[\mathrm{ext2}] = \mathfrak{New}\mathfrak{Name}_{sub}^{sub}ext1[par]ext2$

579  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthparstr}\}[2][2=]$

580  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Str}\}\{\mathrm{parstr}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthoparstr}$  ... to do!

- $\backslash\mathrm{cmdmthoparstr}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{par}] = \mathrm{cmd}\mathfrak{Name}_{sub}^{sub}[par]$
- $\backslash\mathrm{cmdmthoparstr}\{\mathrm{cmdStr}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdStrStr}[\mathrm{sub}][\mathrm{sub}][\mathrm{par}] = \mathfrak{New}\mathfrak{Name}_{sub}^{sub}[par]$

581  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthoparstr}\}[2][2=]$

582  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Str}\}\{\mathrm{oparstr}\}\{\#2\}\}$

$\backslash\mathrm{mthset}, \dots$  ... to do!

- $\backslash\mathrm{mthset}\{Name\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext}] = \mathrm{Name}_{sub}^{sup}Ext$
- $\backslash\mathrm{mthargset}\{Name\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Arg}^{\mathrm{Ex}}\{\mathrm{Ex}\}\}[\mathrm{Ext2}] = \mathrm{Name}_{sub}^{sup}Ext1\left(Arg^{Ex^{Ex}}\right)Ext2$
- $\backslash\mathrm{mthargset}\{Name\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Arg}^{\mathrm{Ex}}\{\mathrm{Ex}\}\}[\mathrm{Ext2}] = \mathrm{Name}_{sub}^{sup}Ext1(Arg^{Ex^{Ex}})Ext2$



- $\backslash\mathrm{mthparset}\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}\}[\mathrm{Ext2}] = \mathrm{Name}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}\left[\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}\right]\mathrm{Ext2}$
- $\backslash\mathrm{mthparset}^*\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}\}[\mathrm{Ext2}] = \mathrm{Name}_{\mathrm{sub}}^{\mathrm{sup}}\mathrm{Ext1}[\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}]\mathrm{Ext2}$

583 %% Style for Sets

584  $\backslash\mathrm{cmdmthall}\{\mathrm{set}\}\backslash\mathrm{newcommand}\{\backslash\mathrm{mthstyset}\}\{\mathrm{mathrm}\}$

$\backslash\mathrm{aSet}, \dots$  ... 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  
 $\alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega$   
 $\mathrm{A}, \mathrm{B}, \mathrm{I}, \Delta, \mathrm{E}, \mathrm{E}, \mathrm{Z}, \mathrm{H}, \Theta, \Theta, \mathrm{I}, \mathrm{K}, \mathrm{K}, \Lambda, \mathrm{M}, \mathrm{N}, \Xi, \mathrm{O}, \Pi, \mathrm{II}, \mathrm{P}, \mathrm{P}, \Sigma, \Sigma, \mathrm{T}, \Upsilon, \Phi, \Phi, \mathrm{X}, \Psi, \Omega$

585  $\backslash\mathrm{seqoflet}\{\mathrm{Set}\}\{\mathrm{mthset}\}$

$\backslash\mathrm{cmdmthset}$  ... to do!

- $\backslash\mathrm{cmdmthset}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathrm{cmdName}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext}$
- $\backslash\mathrm{cmdmthset}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathrm{NewName}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext}$

586  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthset}\}[2][2=]$

587  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Set}\}\{\mathrm{set}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthargset}$  ... to do!

- $\backslash\mathrm{cmdmthargset}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{arg}\}[\mathrm{ext2}] = \mathrm{cmdName}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext1}(\mathrm{arg})\mathrm{ext2}$
- $\backslash\mathrm{cmdmthargset}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{arg}\}[\mathrm{ext2}] = \mathrm{NewName}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext1}(\mathrm{arg})\mathrm{ext2}$

588  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthargset}\}[2][2=]$

589  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Set}\}\{\mathrm{argset}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthoargset}$  ... to do!

- $\backslash\mathrm{cmdmthoargset}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{arg}] = \mathrm{cmdName}_{\mathrm{sub}}^{\mathrm{sub}}(\mathrm{arg})$
- $\backslash\mathrm{cmdmthoargset}\{\mathrm{cmdSet}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdSetSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{arg}] = \mathrm{NewName}_{\mathrm{sub}}^{\mathrm{sub}}(\mathrm{arg})$

590  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthoargset}\}[2][2=]$

591  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Set}\}\{\mathrm{oargset}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthparset}$  ... to do!

- $\backslash\mathrm{cmdmthparset}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{par}\}[\mathrm{ext2}] = \mathrm{cmdName}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext1}[\mathrm{par}]\mathrm{ext2}$
- $\backslash\mathrm{cmdmthparset}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext1}]\{\mathrm{par}\}[\mathrm{ext2}] = \mathrm{NewName}_{\mathrm{sub}}^{\mathrm{sub}}\mathrm{ext1}[\mathrm{par}]\mathrm{ext2}$

592  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthparset}\}[2][2=]$

593  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Set}\}\{\mathrm{parset}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthoparset}$  ... to do!

- $\backslash\mathrm{cmdmthoparset}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{par}] = \mathrm{cmdName}_{\mathrm{sub}}^{\mathrm{sub}}[\mathrm{par}]$
- $\backslash\mathrm{cmdmthoparset}\{\mathrm{cmdSet}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdSetSet}[\mathrm{sub}][\mathrm{sub}][\mathrm{par}] = \mathrm{NewName}_{\mathrm{sub}}^{\mathrm{sub}}[\mathrm{par}]$

594  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthoparset}\}[2][2=]$

595  $\{\backslash\mathrm{usrmth}\{\#1\}\{\mathrm{Set}\}\{\mathrm{oparset}\}\{\#2\}\}$

$\backslash\mathrm{cmdmthsetext}$  ... to do!

596  $\backslash\mathrm{newcommandx}\{\backslash\mathrm{cmdmthsetext}\}[3][2=, 3=]$   
597  $\{\backslash\mathrm{cmdmthset}\{\#1\}\{\#2\}\backslash\mathrm{caselower}[q]\{\#1\}\%$   
598  $\backslash\mathrm{usrmthlet}\{\mathrm{thestring}\}\{\mathrm{Sym}\}\{\mathrm{sym}\}$   
599  $[\backslash\mathrm{defval}\{\#3\}\{\backslash\mathrm{defval}\{\backslash\mathrm{empchk}\{\#2\}\{\backslash\mathrm{lowercase}\{\#2\}\}\}\{\mathrm{thestring}\}\}\%$   
600  $\backslash\mathrm{usrmthlet}\{\mathrm{thestring}\}\{\mathrm{Elm}\}\{\mathrm{elm}\}$   
601  $[\backslash\mathrm{defval}\{\#3\}\{\backslash\mathrm{defval}\{\backslash\mathrm{empchk}\{\#2\}\{\backslash\mathrm{lowercase}\{\#2\}\}\}\{\mathrm{thestring}\}\}\}$

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\mthrel, ... ... to do!
    • \mthrel{Name}[sub][sup][Ext] = NamesubsubExt
    • \mthargrel{Name}[sub][sup][Ext1]{ArgEx{Ex}}}[Ext2] = NamesubsubExt1(ArgExEx)Ext2
    • \mthargrel*{Name}[sub][sup][Ext1]{ArgEx{Ex}}}[Ext2] = NamesubsubExt1(ArgExEx)Ext2
    • \mthparrel{Name}[sub][sup][Ext1]{ParEx{Ex}}}[Ext2] = NamesubsubExt1[ParExEx]Ext2
    • \mthparrel*{Name}[sub][sup][Ext1]{ParEx{Ex}}}[Ext2] = NamesubsubExt1[ParExEx]Ext2
602 %% Style for Relations
603 \cmdmthall{rel}\newcommand{\mthstyrel}{\mathit}

\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
α, β, γ, δ, ε, ζ, η, θ, ϑ, ι, κ, λ, μ, ν, ξ, ο, π, ϖ, ρ, ϑ, σ, ς, τ, υ, φ, ϕ, χ, ψ, ω
A, B, Γ, Δ, E, E, Z, H, Θ, Θ, I, K, K, Λ, M, N, Ξ, O, Π, Π, P, P, Σ, Σ, T, Υ, Φ, Φ, X, Ψ, Ω
604 \seqoflet{Rel}{mthrel}

\cmdmthrel ... to do!
    • \cmdmthrel{cmdName};
      \cmdNameRel[sub][sub][ext] = cmdNamesubsubext
    • \cmdmthrel{cmdName}[NewName];
      \cmdNameRel[sub][sub][ext] = NewNamesubsubext
605 \newcommandx{\cmdmthrel}[2][2=]
606   {\usrmth{#1}{Rel}{rel}{#2}}

\cmdmthargrel ... to do!
    • \cmdmthargrel{cmdName};
      \cmdNameRel[sub][sub][ext1]{arg}[ext2] = cmdNamesubsubext1(arg)ext2
    • \cmdmthargrel{cmdName}[NewName];
      \cmdNameRel[sub][sub][ext1]{arg}[ext2] = NewNamesubsubext1(arg)ext2
607 \newcommandx{\cmdmthargrel}[2][2=]
608   {\usrmth{#1}{Rel}{argrel}{#2}}

\cmdmthoargrel ... to do!
    • \cmdmthoargrel{cmdName};
      \cmdNameRel[sub][sub][arg] = cmdNamesubsub(arg)
    • \cmdmthoargrel{cmdRel}[NewName];
      \cmdRelRel[sub][sub][arg] = NewNamesubsub(arg)
609 \newcommandx{\cmdmthoargrel}[2][2=]
610   {\usrmth{#1}{Rel}{oargrel}{#2}}

\cmdmthparrel ... to do!
    • \cmdmthparrel{cmdName};
      \cmdNameRel[sub][sub][ext1]{par}[ext2] = cmdNamesubsubext1[par]ext2
    • \cmdmthparrel{cmdName}[NewName];
      \cmdNameRel[sub][sub][ext1]{par}[ext2] = NewNamesubsubext1[par]ext2
611 \newcommandx{\cmdmthparrel}[2][2=]
612   {\usrmth{#1}{Rel}{parrel}{#2}}

\cmdmthoparrel ... to do!
    • \cmdmthoparrel{cmdName};
      \cmdNameRel[sub][sub][par] = cmdNamesubsub[par]
    • \cmdmthoparrel{cmdRel}[NewName];
      \cmdRelRel[sub][sub][par] = NewNamesubsub[par]
613 \newcommandx{\cmdmthoparrel}[2][2=]
614   {\usrmth{#1}{Rel}{oparrel}{#2}}

```

```

\mthfun, ... ... to do!
    • \mthfun{Name}[sub][sup][Ext] = NamesubsupExt
    • \mthargfun{Name}[sub][sup][Ext1]{ArgEx{Ex}}}[Ext2] = NamesubsupExt1(ArgExEx)Ext2
    • \mthargfun*{Name}[sub][sup][Ext1]{ArgEx{Ex}}}[Ext2] = NamesubsupExt1(ArgExEx)Ext2
    • \mthparfun{Name}[sub][sup][Ext1]{ParEx{Ex}}}[Ext2] = NamesubsupExt1[ParExEx]Ext2
    • \mthparfun*{Name}[sub][sup][Ext1]{ParEx{Ex}}}[Ext2] = NamesubsupExt1[ParExEx]Ext2
615 %% Style for Functions
616 \cmdmthall{fun}\newcommand{\mthstyfun}{\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
α, β, γ, δ, ε, ζ, η, θ, ι, κ, λ, μ, ν, ξ, ο, π, ρ, ϱ, σ, ς, τ, υ, φ, ϕ, χ, ψ, ω
Α, Β, Γ, Δ, Ε, Ζ, Η, Θ, Ι, Κ, Λ, Μ, Ν, Ξ, Ο, Π, ΙΙ, Ρ, Σ, Σ, Τ, Υ, Φ, ϕ, Χ, Ψ, Ω
617 \seqoflet{Fun}{mthfun}

\cmdmthfun ... to do!
    • \cmdmthfun{cmdName};
      \cmdNameFun[sub][sub][ext] = cmdNamesubsubext
    • \cmdmthfun{cmdName}[NewName];
      \cmdNameFun[sub][sub][ext] = NewNamesubsubext
618 \newcommandx{\cmdmthfun}[2][2=]
619 {\usrmth{#1}{Fun}{fun}{#2}}

\cmdmthargfun ... to do!
    • \cmdmthargfun{cmdName};
      \cmdNameFun[sub][sub][ext1]{arg}[ext2] = cmdNamesubsubext1(arg)ext2
    • \cmdmthargfun{cmdName}[NewName];
      \cmdNameFun[sub][sub][ext1]{arg}[ext2] = NewNamesubsubext1(arg)ext2
620 \newcommandx{\cmdmthargfun}[2][2=]
621 {\usrmth{#1}{Fun}{argfun}{#2}}

\cmdmthoargfun ... to do!
    • \cmdmthoargfun{cmdName};
      \cmdNameFun[sub][sub][arg] = cmdNamesubsub(arg)
    • \cmdmthoargfun{cmdFun}[NewName];
      \cmdFunFun[sub][sub][arg] = NewNamesubsub(arg)
622 \newcommandx{\cmdmthoargfun}[2][2=]
623 {\usrmth{#1}{Fun}{oargfun}{#2}}

\cmdmthparfun ... to do!
    • \cmdmthparfun{cmdName};
      \cmdNameFun[sub][sub][ext1]{par}[ext2] = cmdNamesubsubext1[par]ext2
    • \cmdmthparfun{cmdName}[NewName];
      \cmdNameFun[sub][sub][ext1]{par}[ext2] = NewNamesubsubext1[par]ext2
624 \newcommandx{\cmdmthparfun}[2][2=]
625 {\usrmth{#1}{Fun}{parfun}{#2}}

\cmdmthoparfun ... to do!
    • \cmdmthoparfun{cmdName};
      \cmdNameFun[sub][sub][par] = cmdNamesubsub[par]
    • \cmdmthoparfun{cmdFun}[NewName];
      \cmdFunFun[sub][sub][par] = NewNamesubsub[par]
626 \newcommandx{\cmdmthoparfun}[2][2=]
627 {\usrmth{#1}{Fun}{oparfun}{#2}}

```

```

\mthsym, ... ... to do!
    • \mthsym{Name}[sub][sup][Ext] = NamesubsupExt
    • \mthargsym{Name}[sub][sup][Ext1]{ArgEx{Ex}}}[Ext2] = NamesubsupExt1(ArgExEx)Ext2
    • \mthargsym*{Name}[sub][sup][Ext1]{ArgEx{Ex}}}[Ext2] = NamesubsupExt1(ArgExEx)Ext2
    • \mthparsym{Name}[sub][sup][Ext1]{ParEx{Ex}}}[Ext2] = NamesubsupExt1[ParExEx]Ext2
    • \mthparsym*{Name}[sub][sup][Ext1]{ParEx{Ex}}}[Ext2] = NamesubsupExt1[ParExEx]Ext2
628 %% Style for Symbols
629 \cmdmthall{sym}\newcommand{\mthstysym}{\mathtt}

\asym, ... ... 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
α, β, γ, δ, ε, ζ, η, θ, ι, κ, λ, μ, ν, ξ, ο, π, ρ, ϱ, σ, ς, τ, υ, φ, ϕ, χ, ψ, ω
Α, Β, Γ, Δ, Ε, Ζ, Η, Θ, Ο, Ι, Κ, Λ, Μ, Ν, Ξ, Ο, Π, ΙΙ, Ρ, Σ, Ϛ, Τ, Υ, Φ, Ψ, Ω
630 \seqoflet{Sym}{mthsym}

\cmdmthsym ... to do!
    • \cmdmthsym{cmdName};
      \cmdNameSym[sub][sub][ext] = cmdNamesubsubext
    • \cmdmthsym{cmdName}[NewName];
      \cmdNameSym[sub][sub][ext] = NewNamesubsubext
631 \newcommandx{\cmdmthsym}[2][2=]
632   {\usrmth{#1}{Sym}{sym}[#2]}

\cmdmthargsym ... to do!
    • \cmdmthargsym{cmdName};
      \cmdNameSym[sub][sub][ext1]{arg}[ext2] = cmdNamesubsubext1(arg)ext2
    • \cmdmthargsym{cmdName}[NewName];
      \cmdNameSym[sub][sub][ext1]{arg}[ext2] = NewNamesubsubext1(arg)ext2
633 \newcommandx{\cmdmthargsym}[2][2=]
634   {\usrmth{#1}{Sym}{argsym}[#2]}

\cmdmthoargsym ... to do!
    • \cmdmthoargsym{cmdName};
      \cmdNameSym[sub][sub][arg] = cmdNamesubsub(arg)
    • \cmdmthoargsym{cmdSym}[NewName];
      \cmdSymSym[sub][sub][arg] = NewNamesubsub(arg)
635 \newcommandx{\cmdmthoargsym}[2][2=]
636   {\usrmth{#1}{Sym}{oargsym}[#2]}

\cmdmthparsym ... to do!
    • \cmdmthparsym{cmdName};
      \cmdNameSym[sub][sub][ext1]{par}[ext2] = cmdNamesubsubext1[par]ext2
    • \cmdmthparsym{cmdName}[NewName];
      \cmdNameSym[sub][sub][ext1]{par}[ext2] = NewNamesubsubext1[par]ext2
637 \newcommandx{\cmdmthparsym}[2][2=]
638   {\usrmth{#1}{Sym}{parsym}[#2]}

\cmdmthoparsym ... to do!
    • \cmdmthoparsym{cmdName};
      \cmdNameSym[sub][sub][par] = cmdNamesubsub[par]
    • \cmdmthoparsym{cmdSym}[NewName];
      \cmdSymSym[sub][sub][par] = NewNamesubsub[par]
639 \newcommandx{\cmdmthoparsym}[2][2=]
640   {\usrmth{#1}{Sym}{oparsym}[#2]}

```

```

\mthelm, ... ... to do!
    • \mthelm{Name}[sub][sup][Ext] = NamesubsubExt
    • \mthargelm{Name}[sub][sup][Ext1]{ArgEx{Ex}}}[Ext2] = NamesubsubExt1(ArgExEx)Ext2
    • \mthargelm*{Name}[sub][sup][Ext1]{ArgEx{Ex}}}[Ext2] = NamesubsubExt1(ArgExEx)Ext2
    • \mthparelm{Name}[sub][sup][Ext1]{ParEx{Ex}}}[Ext2] = NamesubsubExt1[ParExEx]Ext2
    • \mthparelm*{Name}[sub][sup][Ext1]{ParEx{Ex}}}[Ext2] = NamesubsubExt1[ParExEx]Ext2
641 %% Style for Elements
642 \cmdmthall{elm}\newcommand{\mthstyelm}{\mathnormal}

\aelm, ... ... 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
α, β, γ, δ, ε, ζ, η, θ, ϑ, ι, κ, λ, μ, ν, ξ, ο, π, ϖ, ρ, ϱ, σ, ς, τ, υ, φ, ϕ, χ, ψ, ω
Α, Β, Γ, Δ, Ε, Ζ, Η, Θ, Ι, Κ, Λ, Μ, Ν, Ξ, Ο, Π, ϒ, Φ, Ψ, Ω
643 \seqoflet{Elm}{mthelm}

\cmdmthelm ... to do!
    • \cmdmthelm{cmdName};
      \cmdNameElm[sub][sub][ext] = cmdNamesubsubext
    • \cmdmthelm{cmdName}[NewName];
      \cmdNameElm[sub][sub][ext] = NewNamesubsubext
644 \newcommandx{\cmdmthelm}[2][2=]
645 {\usrmth{#1}{Elm}{elm}{#2}}

\cmdmthargelm ... to do!
    • \cmdmthargelm{cmdName};
      \cmdNameElm[sub][sub][ext1]{arg}[ext2] = cmdNamesubsubext1(arg)ext2
    • \cmdmthargelm{cmdName}[NewName];
      \cmdNameElm[sub][sub][ext1]{arg}[ext2] = NewNamesubsubext1(arg)ext2
646 \newcommandx{\cmdmthargelm}[2][2=]
647 {\usrmth{#1}{Elm}{argelm}{#2}}

\cmdmthoargelm ... to do!
    • \cmdmthoargelm{cmdName};
      \cmdNameElm[sub][sub][arg] = cmdNamesubsub(arg)
    • \cmdmthoargelm{cmdElm}[NewName];
      \cmdElmElm[sub][sub][arg] = NewNamesubsub(arg)
648 \newcommandx{\cmdmthoargelm}[2][2=]
649 {\usrmth{#1}{Elm}{oargelm}{#2}}

\cmdmthparelm ... to do!
    • \cmdmthparelm{cmdName};
      \cmdNameElm[sub][sub][ext1]{par}[ext2] = cmdNamesubsubext1[par]ext2
    • \cmdmthparelm{cmdName}[NewName];
      \cmdNameElm[sub][sub][ext1]{par}[ext2] = NewNamesubsubext1[par]ext2
650 \newcommandx{\cmdmthparelm}[2][2=]
651 {\usrmth{#1}{Elm}{parelm}{#2}}

\cmdmthoparelm ... to do!
    • \cmdmthoparelm{cmdName};
      \cmdNameElm[sub][sub][par] = cmdNamesubsub[par]
    • \cmdmthoparelm{cmdElm}[NewName];
      \cmdElmElm[sub][sub][par] = NewNamesubsub[par]
652 \newcommandx{\cmdmthoparelm}[2][2=]
653 {\usrmth{#1}{Elm}{oparelm}{#2}}

```

654 %%\*\*\*\*\*%

\cmdmthsymelm ... to do!

- \cmdmthsymelm{cmdName};  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{ext}] = \text{cmdName}_{\text{sub}}^{\text{sub}}\text{ext}$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{ext}] = \text{cmdName}_{\text{sub}}^{\text{sub}}\text{ext}$
- \cmdmthsymelm{cmdName}[NewName];  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{ext}] = \text{NewName}_{\text{sub}}^{\text{sub}}\text{ext}$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{ext}] = \text{NewName}_{\text{sub}}^{\text{sub}}\text{ext}$

655 \newcommandx{\cmdmthsymelm}[2][2=]  
656 {\cmdmthsym{#1}[#2]}%  
657 \cmdmthelm{#1}[#2]}

\cmdmthargsymelm ... to do!

- \cmdmthargsymelm{cmdName};  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{ext1}][\text{arg}][\text{ext2}] = \text{cmdName}_{\text{sub}}^{\text{sub}}\text{ext1}(\text{arg})\text{ext2}$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{ext1}][\text{arg}][\text{ext2}] = \text{cmdName}_{\text{sub}}^{\text{sub}}\text{ext1}(\text{arg})\text{ext2}$
- \cmdmthargsymelm{cmdName}[NewName];  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{ext1}][\text{arg}][\text{ext2}] = \text{NewName}_{\text{sub}}^{\text{sub}}\text{ext1}(\text{arg})\text{ext2}$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{ext1}][\text{arg}][\text{ext2}] = \text{NewName}_{\text{sub}}^{\text{sub}}\text{ext1}(\text{arg})\text{ext2}$

658 \newcommandx{\cmdmthargsymelm}[2][2=]  
659 {\cmdmthargsym{#1}[#2]}%  
660 \cmdmthargelm{#1}[#2]}

\cmdmthoargsymelm ... to do!

- \cmdmthoargsymelm{cmdName};  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{arg}] = \text{cmdName}_{\text{sub}}^{\text{sub}}(\text{arg})$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{arg}] = \text{cmdName}_{\text{sub}}^{\text{sub}}(\text{arg})$
- \cmdmthoargsymelm{cmdName}[NewName];  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{arg}] = \text{NewName}_{\text{sub}}^{\text{sub}}(\text{arg})$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{arg}] = \text{NewName}_{\text{sub}}^{\text{sub}}(\text{arg})$

661 \newcommandx{\cmdmthoargsymelm}[2][2=]  
662 {\cmdmthoargsym{#1}[#2]}%  
663 \cmdmthoargelm{#1}[#2]}

\cmdmthparsymelm ... to do!

- \cmdmthparsymelm{cmdName};  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{ext1}][\text{par}][\text{ext2}] = \text{cmdName}_{\text{sub}}^{\text{sub}}\text{ext1}[\text{par}]\text{ext2}$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{ext1}][\text{par}][\text{ext2}] = \text{cmdName}_{\text{sub}}^{\text{sub}}\text{ext1}[\text{par}]\text{ext2}$
- \cmdmthparsymelm{cmdName}[NewName];  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{ext1}][\text{par}][\text{ext2}] = \text{NewName}_{\text{sub}}^{\text{sub}}\text{ext1}[\text{par}]\text{ext2}$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{ext1}][\text{par}][\text{ext2}] = \text{NewName}_{\text{sub}}^{\text{sub}}\text{ext1}[\text{par}]\text{ext2}$

664 \newcommandx{\cmdmthparsymelm}[2][2=]  
665 {\cmdmthparsym{#1}[#2]}%  
666 \cmdmthparelm{#1}[#2]}

\cmdmthoparsymelm ... to do!

- \cmdmthoparsymelm{cmdName};  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{par}] = \text{cmdName}_{\text{sub}}^{\text{sub}}[\text{par}]$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{par}] = \text{cmdName}_{\text{sub}}^{\text{sub}}[\text{par}]$
- \cmdmthoparsymelm{cmdName}[NewName];  
 $\text{cmdNameSym}[\text{sub}][\text{sub}][\text{par}] = \text{NewName}_{\text{sub}}^{\text{sub}}[\text{par}]$   
 $\text{cmdNameElm}[\text{sub}][\text{sub}][\text{par}] = \text{NewName}_{\text{sub}}^{\text{sub}}[\text{par}]$

667 \newcommandx{\cmdmthoparsymelm}[2][2=]  
668 {\cmdmthoparsym{#1}[#2]}%  
669 \cmdmthoparelm{#1}[#2]}

670 %%\*\*\*\*\*%

\mthluop, ... ... to do!

- $\backslash\mathrm{mthluop}\{\backslash\mathrm{oplus}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext}] = \oplus_{\mathrm{sub}}^{\mathrm{sup}} \mathrm{Ext}$
- $\backslash\mathrm{mthlbop}\{\backslash\mathrm{oplus}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext}] = \oplus_{\mathrm{sub}}^{\mathrm{sup}} \mathrm{Ext}$

```
671 %% Style for \LaTeX Operators
672 \cmdmth{luop}\newcommand{\mthstyluop}[1]{\textstyle\mathop{\#1}}
673 \cmdmth{lbop}\newcommand{\mthstylbop}[1]{\textstyle\mathbin{\#1}}
```

$\backslash\mathrm{cmdmthluop}$ , ... ... to do!

- $\backslash\mathrm{cmdmthluop}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameUOp}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathrm{cmdName}_{\mathrm{sub}}^{\mathrm{sub}} \mathrm{ext}$
- $\backslash\mathrm{cmdmthluop}\{\mathrm{cmdName}\}[\backslash\mathrm{oplus}];$   
 $\backslash\mathrm{cmdNameUOp}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \oplus_{\mathrm{sub}}^{\mathrm{sub}} \mathrm{ext}$
- $\backslash\mathrm{cmdmthlbop}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameBOp}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathrm{cmdName}_{\mathrm{sub}}^{\mathrm{sub}} \mathrm{ext}$
- $\backslash\mathrm{cmdmthlbop}\{\mathrm{cmdName}\}[\backslash\mathrm{oplus}];$   
 $\backslash\mathrm{cmdNameBOp}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \oplus_{\mathrm{sub}}^{\mathrm{sub}} \mathrm{ext}$

```
674 \newcommandx{\cmdmthluop}[2][2=]
675   {\usrmth{\#1}\{UOp\}\{luop\}\{#2\}}
676 \newcommandx{\cmdmthlbop}[2][2=]
677   {\usrmth{\#1}\{BOp\}\{lbop\}\{#2\}}
```

$\backslash\mathrm{mthlrel}$  ... to do!

- $\backslash\mathrm{mthlrel}\{\backslash\mathrm{preceq}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext}] = \preceq_{\mathrm{sub}}^{\mathrm{sup}} \mathrm{Ext}$

```
678 %% Style for \LaTeX Relations
679 \cmdmth{lrel}\newcommand{\mthstylrel}{\mathrel}
```

$\backslash\mathrm{cmdmthlrel}$  ... to do!

- $\backslash\mathrm{cmdmthlrel}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameRel}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathrm{cmdName}_{\mathrm{sub}}^{\mathrm{sub}} \mathrm{ext}$
- $\backslash\mathrm{cmdmthlrel}\{\mathrm{cmdName}\}[\backslash\mathrm{preceq}];$   
 $\backslash\mathrm{cmdNameRel}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \preceq_{\mathrm{sub}}^{\mathrm{sub}} \mathrm{ext}$

```
680 \newcommandx{\cmdmthlrel}[2][2=]
681   {\usrmth{\#1}\{Rel\}\{lrel\}\{#2\}}
```

```
682 %%*****%
```

$\backslash\mathrm{mthsnt}$ , ... ... to do!

- $\backslash\mathrm{mthsnt}\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext}] = \mathrm{Name}_{\mathrm{sub}}^{\mathrm{sup}} \mathrm{Ext}$
- $\backslash\mathrm{mthargsnt}\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Arg}^{\mathrm{Ex}}\{\mathrm{Ex}\}\}[\mathrm{Ext2}] = \mathrm{Name}_{\mathrm{sub}}^{\mathrm{sup}} \mathrm{Ext1}(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}})\mathrm{Ext2}$
- $\backslash\mathrm{mthargsnt}^*\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Arg}^{\mathrm{Ex}}\{\mathrm{Ex}\}\}[\mathrm{Ext2}] = \mathrm{Name}_{\mathrm{sub}}^{\mathrm{sup}} \mathrm{Ext1}(\mathrm{Arg}^{\mathrm{Ex}^{\mathrm{Ex}}})\mathrm{Ext2}$
- $\backslash\mathrm{mthparsnt}\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Par}^{\mathrm{Ex}}\{\mathrm{Ex}\}\}[\mathrm{Ext2}] = \mathrm{Name}_{\mathrm{sub}}^{\mathrm{sup}} \mathrm{Ext1}[\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}] \mathrm{Ext2}$
- $\backslash\mathrm{mthparsnt}^*\{\mathrm{Name}\}[\mathrm{sub}][\mathrm{sup}][\mathrm{Ext1}]\{\mathrm{Par}^{\mathrm{Ex}}\{\mathrm{Ex}\}\}[\mathrm{Ext2}] = \mathrm{Name}_{\mathrm{sub}}^{\mathrm{sup}} \mathrm{Ext1}[\mathrm{Par}^{\mathrm{Ex}^{\mathrm{Ex}}}] \mathrm{Ext2}$

```
683 %% Style for Sentences
684 \cmdmthall{snt}\newcommand{\mthstysnt}{\mathsf}
```

$\backslash\mathrm{aSnt}$ , ... ... 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  
 $\alpha, \beta, \gamma, \delta, \epsilon, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \varkappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega$   
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,  $\Psi$ ,  $\Omega$

```
685 \seqoflet{Snt}{mthsnt}
```

$\backslash\mathrm{cmdmthsnt}$  ... to do!

- $\backslash\mathrm{cmdmthsnt}\{\mathrm{cmdName}\};$   
 $\backslash\mathrm{cmdNameSnt}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathrm{cmdName}_{\mathrm{sub}}^{\mathrm{sub}} \mathrm{ext}$
- $\backslash\mathrm{cmdmthsnt}\{\mathrm{cmdName}\}[\mathrm{NewName}];$   
 $\backslash\mathrm{cmdNameSnt}[\mathrm{sub}][\mathrm{sub}][\mathrm{ext}] = \mathrm{NewName}_{\mathrm{sub}}^{\mathrm{sub}} \mathrm{ext}$

```

686 \newcommandx{\cmdmthsnt}[2][2=]
687   {\usrmth{#1}{Snt}{snt}{#2}}

\cmdmthargsnt ... to do!
  • \cmdmthargsnt{cmdName};
    \cmdNameSnt[sub][sub][ext1]{arg}[ext2] = cmdNamesubext1(arg)ext2
  • \cmdmthargsnt{cmdName}[NewName];
    \cmdNameSnt[sub][sub][ext1]{arg}[ext2] = NewNamesubext1(arg)ext2
688 \newcommandx{\cmdmthargsnt}[2][2=]
689   {\usrmth{#1}{Snt}{argsnt}{#2}}

\cmdmthoargsnt ... to do!
  • \cmdmthoargsnt{cmdName};
    \cmdNameSnt[sub][sub][arg] = cmdNamesub(arg)
  • \cmdmthoargsnt{cmdName}[NewName];
    \cmdNameSnt[sub][sub][arg] = NewNamesub(arg)
690 \newcommandx{\cmdmthoargsnt}[2][2=]
691   {\usrmth{#1}{Snt}{oargsnt}{#2}}

\cmdmthparsnt ... to do!
  • \cmdmthparsnt{cmdName};
    \cmdNameSnt[sub][sub][ext1]{par}[ext2] = cmdNamesubext1[par]ext2
  • \cmdmthparsnt{cmdName}[NewName];
    \cmdNameSnt[sub][sub][ext1]{par}[ext2] = NewNamesubext1[par]ext2
692 \newcommandx{\cmdmthparsnt}[2][2=]
693   {\usrmth{#1}{Snt}{parsnt}{#2}}

\cmdmthoparsnt ... to do!
  • \cmdmthoparsnt{cmdName};
    \cmdNameSnt[sub][sub][par] = cmdNamesub[par]
  • \cmdmthoparsnt{cmdName}[NewName];
    \cmdNameSnt[sub][sub][par] = NewNamesub[par]
694 \newcommandx{\cmdmthoparsnt}[2][2=]
695   {\usrmth{#1}{Snt}{oparsnt}{#2}}

\mthfrm, ... ... to do!
  • \mthfrm{Name}[sub][sup][Ext] = NamesupsubExt
  • \mthargfrm{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = NamesupsubExt1(ArgExEx)Ext2
  • \mthargfrm*{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] = NamesupsubExt1(ArgExEx)Ext2
  • \mthparfrm{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = NamesupsubExt1[ParExEx]Ext2
  • \mthparfrm*{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] = NamesupsubExt1[ParExEx]Ext2
696 %% Style for Formulae
697 \cmdmthall{frm}\newcommand{\mthstyfrm}{\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
α, β, γ, δ, ε, ζ, η, θ, ϑ, ι, κ, λ, μ, ν, ξ, ο, π, ϖ, ρ, ϑ, σ, ς, τ, υ, φ, ϕ, χ, ψ, ω
A, B, Γ, Δ, E, E, Z, H, Θ, I, K, K, A, M, N, Ξ, O, Π, Π, P, P, Σ, Σ, T, Υ, Φ, Φ, X, Ψ, Ω
698 \seqoflet{Frm}{mthfrm}

\cmdmthfrm ... to do!
  • \cmdmthfrm{cmdName};
    \cmdNameFrm[sub][sub][ext] = cmdNamesubsubext
  • \cmdmthfrm{cmdName}[NewName];
    \cmdNameFrm[sub][sub][ext] = NewNamesubsubext

```



```

699 \newcommandx{\cmdmthfrm}[2][2=]
700   {\usrmth{#1}{Frm}{frm}{#2}}

\cmdmthargfrm ... to do!
  • \cmdmthargfrm{cmdName};
    \cmdNameFrm[sub][sub][ext1]{arg}[ext2] =  $\text{cmdName}_{sub}^{sub}ext1(arg)ext2$ 
  • \cmdmthargfrm{cmdName}[NewName];
    \cmdNameFrm[sub][sub][ext1]{arg}[ext2] =  $\text{NewName}_{sub}^{sub}ext1(arg)ext2$ 
701 \newcommandx{\cmdmthargfrm}[2][2=]
702   {\usrmth{#1}{Frm}{argfrm}{#2}}

\cmdmthoargfrm ... to do!
  • \cmdmthoargfrm{cmdName};
    \cmdNameFrm[sub][sub][arg] =  $\text{cmdName}_{sub}^{sub}(arg)$ 
  • \cmdmthoargfrm{cmdName}[NewName];
    \cmdNameFrm[sub][sub][arg] =  $\text{NewName}_{sub}^{sub}(arg)$ 
703 \newcommandx{\cmdmthoargfrm}[2][2=]
704   {\usrmth{#1}{Frm}{oargfrm}{#2}}

\cmdmthparfrm ... to do!
  • \cmdmthparfrm{cmdName};
    \cmdNameFrm[sub][sub][ext1]{par}[ext2] =  $\text{cmdName}_{sub}^{sub}ext1[par]ext2$ 
  • \cmdmthparfrm{cmdName}[NewName];
    \cmdNameFrm[sub][sub][ext1]{par}[ext2] =  $\text{NewName}_{sub}^{sub}ext1[par]ext2$ 
705 \newcommandx{\cmdmthparfrm}[2][2=]
706   {\usrmth{#1}{Frm}{parfrm}{#2}}

\cmdmthoparfrm ... to do!
  • \cmdmthoparfrm{cmdName};
    \cmdNameFrm[sub][sub][par] =  $\text{cmdName}_{sub}^{sub}[par]$ 
  • \cmdmthoparfrm{cmdName}[NewName];
    \cmdNameFrm[sub][sub][par] =  $\text{NewName}_{sub}^{sub}[par]$ 
707 \newcommandx{\cmdmthoparfrm}[2][2=]
708   {\usrmth{#1}{Frm}{oparfrm}{#2}}

709 %%%

\mthmat, ... ... to do!
  • \mthmat{Name}[sub][sup][Ext] =  $\text{Name}_{sub}^{sup}Ext$ 
  • \mthargmat{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] =  $\text{Name}_{sub}^{sup}Ext1\left(\text{Arg}^{Ex^{Ex}}\right)Ext2$ 
  • \mthargmat*{Name}[sub][sup][Ext1]{Arg^{Ex^{Ex}}}[Ext2] =  $\text{Name}_{sub}^{sup}Ext1\left(\text{Arg}^{Ex^{Ex}}\right)Ext2$ 
  • \mthparmat{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] =  $\text{Name}_{sub}^{sup}Ext1\left[\text{Par}^{Ex^{Ex}}\right]Ext2$ 
  • \mthparmat*{Name}[sub][sup][Ext1]{Par^{Ex^{Ex}}}[Ext2] =  $\text{Name}_{sub}^{sup}Ext1\left[\text{Par}^{Ex^{Ex}}\right]Ext2$ 
710 %% Style for Matrices
711 \cmdmthall{mat}\newcommand{\mthstymat}[1]{\boldsymbol{\mathsf{#1}}}

\mat, ... ... 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
 $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \chi, \lambda, \mu, \nu, \xi, \omicron, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega$ 
A, B,  $\Gamma, \Delta, E, \Xi, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, \Pi, P, P, \Sigma, \Sigma, T, T, \Phi, \Phi, X, \Psi, \Omega$ 
712 \seqoflet{Mat}{mthmat}

\cmdmthmat ... to do!
  • \cmdmthmat{cmdName};
    \cmdNameMat[sub][sub][ext] =  $\text{cmdName}_{sub}^{sub}ext$ 

```

- $\backslash\text{cmdmthmat}\{\text{cmdName}\}[\text{NewName}]$ ;  
 $\backslash\text{cmdNameMat}[\text{sub}][\text{sub}][\text{ext}] = \mathbf{NewName}_{sub}^{sub}ext$

```
713 \newcommandx{\cmdmthmat}[2][2=]
714   {\usrmth{\#1}\Mat}\mat{\#2}}
```

$\backslash\text{cmdmthargmat}$  ... to do!

- $\backslash\text{cmdmthargmat}\{\text{cmdName}\}$ ;  
 $\backslash\text{cmdNameMat}[\text{sub}][\text{sub}][\text{ext1}][\text{arg}][\text{ext2}] = \mathbf{cmdName}_{sub}^{sub}ext1(arg)ext2$
- $\backslash\text{cmdmthargmat}\{\text{cmdName}\}[\text{NewName}]$ ;  
 $\backslash\text{cmdNameMat}[\text{sub}][\text{sub}][\text{ext1}][\text{arg}][\text{ext2}] = \mathbf{NewName}_{sub}^{sub}ext1(arg)ext2$

```
715 \newcommandx{\cmdmthargmat}[2][2=]
716   {\usrmth{\#1}\Mat}\argmat{\#2}}
```

$\backslash\text{cmdmthoargmat}$  ... to do!

- $\backslash\text{cmdmthoargmat}\{\text{cmdName}\}$ ;  
 $\backslash\text{cmdNameMat}[\text{sub}][\text{sub}][\text{arg}] = \mathbf{cmdName}_{sub}^{sub}(arg)$
- $\backslash\text{cmdmthoargmat}\{\text{cmdName}\}[\text{NewName}]$ ;  
 $\backslash\text{cmdNameMat}[\text{sub}][\text{sub}][\text{arg}] = \mathbf{NewName}_{sub}^{sub}(arg)$

```
717 \newcommandx{\cmdmthoargmat}[2][2=]
718   {\usrmth{\#1}\Mat}\oargmat{\#2}}
```

$\backslash\text{cmdmthparmat}$  ... to do!

- $\backslash\text{cmdmthparmat}\{\text{cmdName}\}$ ;  
 $\backslash\text{cmdNameMat}[\text{sub}][\text{sub}][\text{ext1}][\text{par}][\text{ext2}] = \mathbf{cmdName}_{sub}^{sub}ext1[par]ext2$
- $\backslash\text{cmdmthparmat}\{\text{cmdName}\}[\text{NewName}]$ ;  
 $\backslash\text{cmdNameMat}[\text{sub}][\text{sub}][\text{ext1}][\text{par}][\text{ext2}] = \mathbf{NewName}_{sub}^{sub}ext1[par]ext2$

```
719 \newcommandx{\cmdmthparmat}[2][2=]
720   {\usrmth{\#1}\Mat}\parmat{\#2}}
```

$\backslash\text{cmdmthoparmat}$  ... to do!

- $\backslash\text{cmdmthoparmat}\{\text{cmdName}\}$ ;  
 $\backslash\text{cmdNameMat}[\text{sub}][\text{sub}][\text{par}] = \mathbf{cmdName}_{sub}^{sub}[par]$
- $\backslash\text{cmdmthoparmat}\{\text{cmdName}\}[\text{NewName}]$ ;  
 $\backslash\text{cmdNameMat}[\text{sub}][\text{sub}][\text{par}] = \mathbf{NewName}_{sub}^{sub}[par]$

```
721 \newcommandx{\cmdmthoparmat}[2][2=]
722   {\usrmth{\#1}\Mat}\oparmat{\#2}}
```

$\backslash\text{mthvec}$ , ... to do!

- $\backslash\text{mthvec}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext}] = \mathbf{Name}_{sub}^{sup}Ext$
- $\backslash\text{mthargvec}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}][\text{Arg}^{\text{Ex}^{\text{Ex}}}\{\text{Ex}\}][\text{Ext2}] = \mathbf{Name}_{sub}^{sup}Ext1\left(\text{Arg}^{\text{Ex}^{\text{Ex}}}\right)Ext2$
- $\backslash\text{mthargvec}*\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}][\text{Arg}^{\text{Ex}^{\text{Ex}}}\{\text{Ex}\}][\text{Ext2}] = \mathbf{Name}_{sub}^{sup}Ext1(\text{Arg}^{\text{Ex}^{\text{Ex}}})Ext2$
- $\backslash\text{mthparvec}\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}][\text{Par}^{\text{Ex}^{\text{Ex}}}\{\text{Ex}\}][\text{Ext2}] = \mathbf{Name}_{sub}^{sup}Ext1\left[\text{Par}^{\text{Ex}^{\text{Ex}}}\right]Ext2$
- $\backslash\text{mthparvec}*\{\text{Name}\}[\text{sub}][\text{sup}][\text{Ext1}][\text{Par}^{\text{Ex}^{\text{Ex}}}\{\text{Ex}\}][\text{Ext2}] = \mathbf{Name}_{sub}^{sup}Ext1[\text{Par}^{\text{Ex}^{\text{Ex}}}]Ext2$

```
723 %% Style for Vectors
```

```
724 \cmdmthall{\vec}\newcommand{\mthstyvec}[1]{\boldsymbol{\mathit{\#1}}}
```

$\backslash\text{aVec}$ , ... to do!

$a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z$   
 $A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z$   
 $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \varpi, \rho, \varrho, \sigma, \varsigma, \tau, \upsilon, \phi, \varphi, \chi, \psi, \omega$   
 $A, B, \Gamma, \Delta, E, E, Z, H, \Theta, \Theta, I, K, K, \Lambda, M, N, \Xi, O, \Pi, \Pi, P, P, \Sigma, \Sigma, T, \Upsilon, \Phi, \Phi, X, \Psi, \Omega$

```
725 \seqoflet{\Vec}\mthvec}
```

$\backslash\text{cmdmthvec}$  ... to do!

- $\backslash\text{cmdmthvec}\{\text{cmdName}\}$ ;  
 $\backslash\text{cmdNameVec}[\text{sub}][\text{sub}][\text{ext}] = \mathbf{cmdName}_{sub}^{sub}ext$

```

    • \cmdmthvec{cmdName}[NewName];
      \cmdNameVec[sub][sub][ext] = NewNamesubsubext
726 \newcommandx{\cmdmthvec}[2][2=]
727   {\usrmth{#1}{Vec}{vec}[#2]}

\cmdmthargvec ... to do!
    • \cmdmthargvec{cmdName};
      \cmdNameVec[sub][sub][ext1]{arg}[ext2] = cmdNamesubsubext1(arg)ext2
    • \cmdmthargvec{cmdName}[NewName];
      \cmdNameVec[sub][sub][ext1]{arg}[ext2] = NewNamesubsubext1(arg)ext2
728 \newcommandx{\cmdmthargvec}[2][2=]
729   {\usrmth{#1}{Vec}{argvec}[#2]}

\cmdmthoargvec ... to do!
    • \cmdmthoargvec{cmdName};
      \cmdNameVec[sub][sub][arg] = cmdNamesubsub(arg)
    • \cmdmthoargvec{cmdName}[NewName];
      \cmdNameVec[sub][sub][arg] = NewNamesubsub(arg)
730 \newcommandx{\cmdmthoargvec}[2][2=]
731   {\usrmth{#1}{Vec}{oargvec}[#2]}

\cmdmthparvec ... to do!
    • \cmdmthparvec{cmdName};
      \cmdNameVec[sub][sub][ext1]{par}[ext2] = cmdNamesubsubext1[par]ext2
    • \cmdmthparvec{cmdName}[NewName];
      \cmdNameVec[sub][sub][ext1]{par}[ext2] = NewNamesubsubext1[par]ext2
732 \newcommandx{\cmdmthparvec}[2][2=]
733   {\usrmth{#1}{Vec}{parvec}[#2]}

\cmdmthoparvec ... to do!
    • \cmdmthoparvec{cmdName};
      \cmdNameVec[sub][sub][par] = cmdNamesubsub[par]
    • \cmdmthoparvec{cmdName}[NewName];
      \cmdNameVec[sub][sub][par] = NewNamesubsub[par]
734 \newcommandx{\cmdmthoparvec}[2][2=]
735   {\usrmth{#1}{Vec}{oparvec}[#2]}

736 \fi
737 %*****%
738 %*****%
739 %** Elementary Macros for Text *****%
740 %*****%
741 \iftxt@
742 %** Latin Abbreviations *****%

\adhoc    • \adhoc = ad hoc
743 \cmdtxtabr{adhoc}[ad hoc]

\afortiori    • \afortiori = a fortiori
744 \cmdtxtabr{afortiori}[a fortiori]

\apriori    • \apriori = a priori
745 \cmdtxtabr{apriori}[a priori]

\aposteriori    • \aposteriori = a posteriori
746 \cmdtxtabr{aposteriori}[a posteriori]

\cf    • \cf = cf.
747 \cmdtxtabr{cf}[cf.]

```

`\dedicto`      • `\dedicto = de dicto`  
748 `\cmdtxtabr{dedicto}[de dicto]`

`\defacto`      • `\defacto = de facto`  
749 `\cmdtxtabr{defacto}[de facto]`

`\dere`          • `\dere = de re`  
750 `\cmdtxtabr{dere}[de re]`

`\divideetimpera`      • `\divideetimpera = divide et impera`  
751 `\cmdtxtabr{divideetimpera}[divide et impera]`

`\eg`            • `\eg = e.g.`  
752 `\cmdtxtabr{eg}[e.g.]`

`\ergo`          • `\ergo = ergo`  
753 `\cmdtxtabr{ergo}`

`\errata`        • `\errata = errata`  
754 `\cmdtxtabr{errata}`

`\erratum`      • `\erratum = erratum`  
755 `\cmdtxtabr{erratum}`

`\etal`          • `\etal = et al.`  
756 `\cmdtxtabr{etal}[et al.]`

`\etc`           • `\etc = etc.`  
757 `\cmdtxtabr{etc}[etc.]`

`\ie`            • `\ie = i.e.`  
758 `\cmdtxtabr{ie}[i.e.]`

`\mutatismutandis`      • `\mutatismutandis = mutatis mutandis`  
759 `\cmdtxtabr{mutatismutandis}[mutatis mutandis]`

`\percontra`      • `\percontra = per contra`  
760 `\cmdtxtabr{percontra}[per contra]`

`\primafacie`      • `\primafacie = prima facie`  
761 `\cmdtxtabr{primafacie}[prima facie]`

`\viceversa`      • `\viceversa = vice versa`  
762 `\cmdtxtabr{viceversa}[vice versa]`

`\vs`            • `\vs = vs.`  
763 `\cmdtxtabr{vs}[vs.]`

`\viz`           • `\viz = viz.`  
764 `\cmdtxtabr{viz}[viz.]`  
765 `%%*****%`

`\Afortiori`      • `\Afortiori = A fortiori`  
766 `\cmdtxtabr{Afortiori}[A fortiori]`

`\Apriori`        • `\Apriori = A priori`  
767 `\cmdtxtabr{Apriori}[A priori]`

$\backslash$ Aposteriori      •  $\backslash$ Aposteriori = *A posteriori*  
768 \cmdtxtabr{Aposteriori}[A posteriori]

$\backslash$ Dedicto      •  $\backslash$ Dedicto = *De dicto*  
769 \cmdtxtabr{Dedicto}[De dicto]

$\backslash$ Defacto      •  $\backslash$ Defacto = *De facto*  
770 \cmdtxtabr{Defacto}[De facto]

$\backslash$ Dere      •  $\backslash$ Dere = *De re*  
771 \cmdtxtabr{Dere}[De re]

$\backslash$ Divideetimperā      •  $\backslash$ Divideetimperā = *Divide et impera*  
772 \cmdtxtabr{Divideetimperā}[Divide et impera]

$\backslash$ Eg      •  $\backslash$ Eg = *E.g.*  
773 \cmdtxtabr{Eg}[E.g.]

$\backslash$ Errata      •  $\backslash$ Errata = *Errata*  
774 \cmdtxtabr{Errata}

$\backslash$ Erratum      •  $\backslash$ Erratum = *Erratum*  
775 \cmdtxtabr{Erratum}

$\backslash$ Mutatismutandis      •  $\backslash$ Mutatismutandis = *Mutatis mutandis*  
776 \cmdtxtabr{Mutatismutandis}[Mutatis mutandis]

$\backslash$ Percontra      •  $\backslash$ Percontra = *Per contra*  
777 \cmdtxtabr{Percontra}[Per contra]

$\backslash$ Prima facie      •  $\backslash$ Prima facie = *Prima facie*  
778 \cmdtxtabr{Prima facie}[Prima facie]

$\backslash$ Viceversa      •  $\backslash$ Viceversa = *Vice versa*  
779 \cmdtxtabr{Viceversa}[Vice versa]

780 %\*\* Italian Abbreviations \*\*\*\*\*%  
...  
781 %\*\*\*\*\*%  
...  
782 %\*\* French Abbreviations \*\*\*\*\*%

$\backslash$ naif      •  $\backslash$ naif = *naïf*  
783 \cmdtxtabr{naif}[na\{i}f]

$\backslash$ naive      •  $\backslash$ naive = *naïve*  
784 \cmdtxtabr{naive}[na\{i}ve]

$\backslash$ role      •  $\backslash$ role = *rôle*  
785 \cmdtxtabr{role}[r\^{o}le]

786 %\*\*\*\*\*%

$\backslash$ Role      •  $\backslash$ Role = *Rôle*  
787 \cmdtxtabr{Role}[R\^{o}le]

788 %\*\* English Abbreviations \*\*\*\*\*%

```

\aka      • \aka = a.k.a.
789 \cmdtxtabr{aka}[a.k.a.]

\contd    • \contd = contd.
790 \cmdtxtabr{contd}[contd.]

\iff      • \iff = iff
791 \cmdtxtabr{iff}

\iht      • \iht = i.h.t.
792 \cmdtxtabr{iht}[i.h.t.]

\stx      • \stx = s.t.
793 \cmdtxtabr{stx}[s.t.]

\resp     • \resp = resp.
794 \cmdtxtabr{resp}[resp.]

\wrt      • \wrt = w.r.t.
795 \cmdtxtabr{wrt}[w.r.t.]

\wlogx    • \wlogx = w.l.o.g.
796 \cmdtxtabr{wlogx}[w.l.o.g.]
797 %%*****%%

\Contd    • \Contd = Contd.
798 \cmdtxtabr{Contd}[Contd.]

\Wlogx    • \Wlogx = W.l.o.g.
799 \cmdtxtabr{Wlogx}[W.l.o.g.]

800 \fi
801 %%*****%%
802 %%*****%%
803 %%** Elementary Macros for Math *****%%
804 %%*****%%
805 \ifmth@
806 %%** General Notation *****%%

\defeq, \seteq ...
807 \DeclareRobustCommand{\defeq}
808   {\@ifstar%
809     {\mthlbop{\stackrel{\text{\textup{def}}}{=}}}%
810     {\mthlbop{\triangleq}}}
811 \DeclareRobustCommand{\seteq}
812   {\@ifstar{\mthlbop{\Coloneqq}}{\mthlbop{\coloneqq}}}
813 %%*****%%

\implies, ... ...
814 \DeclareRobustCommand{\implies}
815   {\mthlrel{\Rightarrow}}
816 \DeclareRobustCommand{\notimplies}
817   {\mthlrel{\not\Rightarrow}}

\implied, ... ...
818 \DeclareRobustCommand{\implied}
819   {\mthlrel{\Leftarrow}}
820 \DeclareRobustCommand{\notimplied}
821   {\mthlrel{\not\Leftarrow}}

```

```

\coimplies, ... ...
822 \DeclareRobustCommand{\coimplies}
823   {\mthlrel{\Leftrightarrow}}
824 \DeclareRobustCommand{\notcoimplies}
825   {\mthlrel{\not\!\Leftrightarrow}}

826 %%*****%

\cmodels, ... ...
827 \DeclareRobustCommand{\cmodels}
828   {\mthlrel{\models}}
829 \DeclareRobustCommand{\notcmodels}
830   {\mthlrel{\not\models}}

\cequiv, ... ...
831 \DeclareRobustCommand{\cequiv}
832   {\mthlrel{\equiv}}
833 \DeclareRobustCommand{\notcequiv}
834   {\mthlrel{\not\equiv}}

835 %%*****%

\denot ...
836 \DeclareRobustCommand{\denot}
837   {\@ifstar{\@denot}{\@denot[\left][\right]}}
838 \DeclareRobustCommandx{\@denot}[3][1=, 2=]
839   {\mth{\argmid{\#1\llbracket}{\#3}{\#2\rrbracket}}}

840 %%*****%

\dual, \adj, ... ...
841 \DeclareRobustCommand{\dual}[1]
842   {\mth{\overline{\#1}}}
843 \DeclareRobustCommand{\adj}[1]
844   {\mth{\mathring{\#1}}}
845 \DeclareRobustCommand{\der}[1]
846   {\mth{\widehat{\#1}}}
847 \DeclareRobustCommand{\trn}[1]
848   {\mth{\widetilde{\#1}}}

\vec ...
849 \DeclareRobustCommand{\vec}
850   {\@ifstar{\@svec}{\@vec}}
851 \DeclareRobustCommand{\@vec}[1]
852   {\mth{\mathaccent"017E{\#1}}}
853 \DeclareRobustCommand{\@svec}[1]
854   {\mth{\overline{\#1}}}

855 %%*****%

\enumeration, ... ...
856 \varcmd{enumeration}{\mth}{\{,\}{}}
857 \varcmd{enumerationx}{\mth}{\{;\}{}}

\sequence, ... ...
858 \DeclareRobustCommand{\sequence}
859   {\@ifstar{\@ssequence}{\@sequence}}
860 \varcmd{@sequence}{\mth}{\left[\{,\}{\right]}}
861 \varcmd{@ssequence}{\mth}{\left[\{,\}{\right]}}
862 \DeclareRobustCommand{\sequence1}
863   {\@ifstar{\@ssequence1}{\@sequence1}}
864 \varcmd{@sequence1}{\mth}{\left[\{,\}{\right.}\{}}
865 \varcmd{@ssequence1}{\mth}{\left[\{,\}{\right.}\{}}

```

```

866 \DeclareRobustCommand{\sequencer}
867   {\@ifstar{\@ssequencer}{\@sequencer}}
868 \varcmd{\sequencer}{\mth}{\left.}{,}{\right]}{}
869 \varcmd{\ssequencer}{\mth}{,}{,}{}{}
870 \DeclareRobustCommand{\sequencex}
871   {\@ifstar{\@ssequencex}{\@sequencex}}
872 \varcmd{\sequencex}{\mth}{\left[}{;}{\right]}{}
873 \varcmd{\ssequencex}{\mth}{[}{;}{]}{}
874 \DeclareRobustCommand{\sequencexl}
875   {\@ifstar{\@ssequencexl}{\@sequencexl}}
876 \varcmd{\sequencexl}{\mth}{\left[}{;}{\right.]}{}
877 \varcmd{\ssequencexl}{\mth}{[}{;}{]}{}
878 \DeclareRobustCommand{\sequencexr}
879   {\@ifstar{\@ssequencexr}{\@sequencexr}}
880 \varcmd{\sequencexr}{\mth}{\left.}{;}{\right]}{}
881 \varcmd{\ssequencexr}{\mth}{,}{;}{]}{}

```

\tuple, ... ..

```

882 \DeclareRobustCommand{\tuple}
883   {\@ifstar{\@stuple}{\@tuple}}
884 \varcmd{\tuple}{\mth}{\left\langle}{,}{\right\rangle}{}
885 \varcmd{\stuple}{\mth}{\langle}{,}{\rangle}{}
886 \DeclareRobustCommand{\tuplel}
887   {\@ifstar{\@stupl}{\@tuplel}}
888 \varcmd{\tuplel}{\mth}{\left\langle}{,}{\right.]}{}
889 \varcmd{\stupl}{\mth}{\langle}{,}{\rangle}{}
890 \DeclareRobustCommand{\tupler}
891   {\@ifstar{\@stupler}{\@tupler}}
892 \varcmd{\tupler}{\mth}{\left.}{,}{\right\rangle}{}
893 \varcmd{\stupler}{\mth}{,}{,}{\rangle}{}
894 \DeclareRobustCommand{\tuplex}
895   {\@ifstar{\@stuplex}{\@tuplex}}
896 \varcmd{\tuplex}{\mth}{\left\langle}{;}{\right\rangle}{}
897 \varcmd{\stuplex}{\mth}{\langle}{;}{\rangle}{}
898 \DeclareRobustCommand{\tuplexl}
899   {\@ifstar{\@stuplexl}{\@tuplexl}}
900 \varcmd{\tuplexl}{\mth}{\left\langle}{;}{\right.]}{}
901 \varcmd{\stuplexl}{\mth}{\langle}{;}{\rangle}{}
902 \DeclareRobustCommand{\tuplexr}
903   {\@ifstar{\@stuplexr}{\@tuplexr}}
904 \varcmd{\tuplexr}{\mth}{\left.}{;}{\right\rangle}{}
905 \varcmd{\stuplexr}{\mth}{,}{;}{\rangle}{}

906 %** Sets *****%

```

\set, ... ..

```

907 \DeclareRobustCommand{\set}
908   {\@ifstar{\@set}{\@set[\left][\middle][\right]}}
909 \DeclareRobustCommandx{\@set}[5][1=, 2=, 3=]
910   {\mth{\argmid{\#1\lbrace}{\argsep{\#4}{\,}{\#2\vert\,}{\#5}}{\#3\rbrace}}}
911 \DeclareRobustCommand{\setl}
912   {\@ifstar{\@setl}{\@setl[\left][\right]}}
913 \DeclareRobustCommandx{\@setl}[3][1=, 2=]
914   {\mth{\argmid{\#1\lbrace}{\#3}{\,}{\#2\vert\!}}{\#3}}
915 \DeclareRobustCommand{\setr}
916   {\@ifstar{\@setr}{\@setr[\left.][\right]}}
917 \DeclareRobustCommandx{\@setr}[3][1=, 2=]
918   {\mth{\argmid{\#1}{\#3}{\#2\rbrace}}}

```

\card ...

```

919 \DeclareRobustCommand{\card}
920   {\@ifstar{\@card}{\@card[\left][\right]}}
921 \DeclareRobustCommandx{\@card}[3][1=, 2=]
922   {\mth{\argmid{\#1\lvert}{\#3}{\#2\rvert}}}

```



```

\pow ...
923 \DeclareRobustCommand{\pow}[1]
924   {\mth{2^{\defval{#1}{\cdot}}}}

925 %%** Relations *****%%

\emptyrel ...
926 \DeclareRobustCommand{\emptyrel}
927   {\mth{\varnothing}}

928 %%*****%%

\dom, \cod, ... ...
929 \usrmth{dom}{-}{argfun}
930 \usrmth{cod}{-}{argfun}
931 \usrmth{rng}{-}{argfun}
932 \usrmth{img}{-}{argfun}

933 %%*****%%

\prj ...
934 \DeclareRobustCommand{\prj}
935   {\mthargfun{prj}}

\rst ...
936 \DeclareRobustCommand{\rst}
937   {\mthlbop{\upharpoonright}}

\cmp ...
938 \DeclareRobustCommand{\cmp}
939   {\mthlbop{\circ}}

940 %%** Functions *****%%

\emptyfun ...
941 \DeclareRobustCommand{\emptyfun}
942   {\mth{\varnothing}}

943 %%*****%%

\pto, \pmapsto ...
944 \DeclareMathOperator{\pto}
945   {\ensuremath{\rightharpoonup}}
946 \DeclareMathOperator{\pmapsto}
947   {\ensuremath{\mathrel{\raisebox{0.5ex}{\footnotesize$\llcorner$}}}%
948     \kern-1.5ex\rightharpoonup}}

949 %%*****%%

\fix, \ifp, ... ...
950 \usrmth{fix}{-}{fun}
951 \usrmth{ifp}{-}{fun}
952 \usrmth{lfp}{-}{fun}
953 \usrmth{gfp}{-}{fun}

954 %%*****%%

\Aomega, \AOmega ...
955 \usrmth{Aomega}{-}{argset}[\omega]
956 \usrmth{AOmega}{-}{argset}[\Omega]

\Atheta, \ATheta ...
957 \usrmth{Atheta}{-}{argset}[\theta]
958 \usrmth{ATheta}{-}{argset}[\Theta]

```

```

\Aomicron, ... ...
    959 \usrmth{Aomicron}{\argset}{\omicron}
    960 \usrmth{A0micron}{\argset}{\0micron}

    961 %%** Numbers *****%%

\SetB ...
    962 \DeclareRobustCommand{\SetB}
    963   {\mthset[mathbb]{B}}

\SetF ...
    964 \DeclareRobustCommand{\SetF}
    965   {\mthset[mathbb]{F}}

\SetN, ... ...
    966 \DeclareRobustCommand{\SetN}
    967   {\mthset[mathbb]{N}}
    968 \DeclareRobustCommand{\SetNI}[1] []
    969   {\SetN[\infty #1]}

\SetZ, ... ...
    970 \DeclareRobustCommand{\SetZ}
    971   {\mthset[mathbb]{Z}}
    972 \DeclareRobustCommand{\SetZI}[1] []
    973   {\SetZ[\pm\infty #1]}
    974 \DeclareRobustCommand{\SetZPI}[1] []
    975   {\SetZ[+\infty #1]}
    976 \DeclareRobustCommand{\SetZNI}[1] []
    977   {\SetZ[-\infty #1]}

\SetQ, ... ...
    978 \DeclareRobustCommand{\SetQ}
    979   {\mthset[mathbb]{Q}}
    980 \DeclareRobustCommand{\SetQI}[1] []
    981   {\SetQ[\pm\infty #1]}
    982 \DeclareRobustCommand{\SetQPI}[1] []
    983   {\SetQ[+\infty #1]}
    984 \DeclareRobustCommand{\SetQNI}[1] []
    985   {\SetQ[-\infty #1]}

\SetR, ... ...
    986 \DeclareRobustCommand{\SetR}
    987   {\mthset[mathbb]{R}}
    988 \DeclareRobustCommand{\SetRI}[1] []
    989   {\SetR[\pm\infty #1]}
    990 \DeclareRobustCommand{\SetRPI}[1] []
    991   {\SetR[+\infty #1]}
    992 \DeclareRobustCommand{\SetRNI}[1] []
    993   {\SetR[-\infty #1]}

\SetC, ... ...
    994 \DeclareRobustCommand{\SetC}
    995   {\mthset[mathbb]{C}}
    996 \DeclareRobustCommand{\SetCI}[1] []
    997   {\SetC[\infty #1]}

    998 %*****%%

\num, ... ...
    999 \DeclareRobustCommand{\num}[1]
    1000   {\mth{[#1]}}
    1001 \DeclareRobustCommand{\numcc}[2]
    1002   {\mth{[\argsep{#1}{,}{#2}]}}

```

```

1003 \DeclareRobustCommand{\numco}[2]
1004   {\mth{\argsep{#1}{,}{#2}}}}
1005 \DeclareRobustCommand{\numoc}[2]
1006   {\mth{(\argsep{#1}{,}{#2})}}
1007 \DeclareRobustCommand{\numoo}[2]
1008   {\mth{(\argsep{#1}{,}{#2})}}

```

```

1009 %%*****%

```

\abs, \norm ...

```

1010 \DeclareRobustCommand{\abs}
1011   {\@ifstar{\@abs}{\@abs[\left][\right]}}
1012 \DeclareRobustCommandx{\@abs}[3][1=, 2=]
1013   {\mth{\argmid{#1\lvert}{#3}{#2\rvert}}}}
1014 \DeclareRobustCommand{\norm}
1015   {\@ifstar{\@norm}{\@norm[\left][\right]}}
1016 \DeclareRobustCommandx{\@norm}[3][1=, 2=]
1017   {\mth{\argmid{#1\lVert}{#3}{#2\rVert}}}}

```

\floor, \ceil ...

```

1018 \DeclareRobustCommand{\floor}
1019   {\@ifstar{\@floor}{\@floor[\left][\right]}}
1020 \DeclareRobustCommandx{\@floor}[3][1=, 2=]
1021   {\mth{\argmid{#1\lfloor}{#3}{#2\rfloor}}}}
1022 \DeclareRobustCommand{\ceil}
1023   {\@ifstar{\@ceil}{\@ceil[\left][\right]}}
1024 \DeclareRobustCommandx{\@ceil}[3][1=, 2=]
1025   {\mth{\argmid{#1\lceil}{#3}{#2\rceil}}}}

```

```

1026 %%*****%

```

\arg ...

```

1027 \usrmth{arg}{\fun}

```

\evn, \odd ...

```

1028 \usrmth{evn}{\fun}
1029 \usrmth{odd}{\fun}

```

\bst, ... ...

```

1030 \usrmth{bst}{\fun}
1031 \usrmth{argbst}{\fun}[arg\,bst]

```

\min, \max, ... ...

```

1032 \usrmth{min}{\fun}
1033 \usrmth{max}{\fun}
1034 \usrmth{argmin}{\fun}[arg\,min]
1035 \usrmth{argmax}{\fun}[arg\,max]

```

\inf, \sup ...

```

1036 \usrmth{inf}{\fun}
1037 \usrmth{sup}{\fun}

```

```

1038 %%** Sequences *****%

```

\emptyseq ...

```

1039 \DeclareRobustCommand{\emptyseq}
1040   {\mth{\varepsilon}}

```

\len ...

```

1041 \DeclareRobustCommand{\len}
1042   {\@ifstar{\@len}{\@len[\left][\right]}}
1043 \DeclareRobustCommandx{\@len}[3][1=, 2=]
1044   {\mth{\argmid{#1\lvert}{#3}{#2\rvert}}}}

```

```

\fst, \lst ...
1045 \usrmth{fst}{-}{argfun}
1046 \usrmth{lst}{-}{argfun}

1047 \fi
1048 %*****%
1049 %*****%
1050 %** Macros for Computational-Complexity Classes *****%
1051 %*****%
1052 \ifcom@

\defcomcls ... to do!
    • \defcomcls{CompClass};

      \CompClass[sub][sup][arg] = COMPCLASSSUB(ARG)

    • \defcomcls{CompClass}[NewClass];

      \CompClass[sub][sup][arg] = NEWCLASSSUB(ARG)

1053 \newcommandx{\defcomcls}[2][2=]
1054   {\csdef{#1}{\txtoargcom{\defval{#2}{#1}}}}

\defcomclsgrp ... to do!
    • \defcomclsgrp{CompClass};

      \CompClass[sub][sup][arg] = COMPCLASSSUB(ARG)
      \CoCompClass[sub][sup][arg] = COCOMPCLASSSUB(ARG)
      \CompClassE[sub][sup][arg] = COMPCLASS-EASYSUB(ARG)
      \CoCompClassE[sub][sup][arg] = COCOMPCLASS-EASYSUB(ARG)
      \CompClassH[sub][sup][arg] = COMPCLASS-HARDSUB(ARG)
      \CoCompClassH[sub][sup][arg] = COCOMPCLASS-HARDSUB(ARG)
      \CompClassC[sub][sup][arg] = COMPCLASS-COMPLETESUB(ARG)
      \CoCompClassC[sub][sup][arg] = COCOMPCLASS-COMPLETESUB(ARG)

      \DCompClass[sub][sup][arg] = DCOMPCLASSSUB(ARG)
      \CoDCompClass[sub][sup][arg] = CODCOMPCLASSSUB(ARG)
      \DCompClassE[sub][sup][arg] = DCOMPCLASS-EASYSUB(ARG)
      \CoDCompClassE[sub][sup][arg] = CODCOMPCLASS-EASYSUB(ARG)
      \DCompClassH[sub][sup][arg] = DCOMPCLASS-HARDSUB(ARG)
      \CoDCompClassH[sub][sup][arg] = CODCOMPCLASS-HARDSUB(ARG)
      \DCompClassC[sub][sup][arg] = DCOMPCLASS-COMPLETESUB(ARG)
      \CoDCompClassC[sub][sup][arg] = CODCOMPCLASS-COMPLETESUB(ARG)

      \NCompClass[sub][sup][arg] = NCOMPCLASSSUB(ARG)
      \CoNCompClass[sub][sup][arg] = CONCOMPCLASSSUB(ARG)
      \NCompClassE[sub][sup][arg] = NCOMPCLASS-EASYSUB(ARG)
      \CoNCompClassE[sub][sup][arg] = CONCOMPCLASS-EASYSUB(ARG)
      \NCompClassH[sub][sup][arg] = NCOMPCLASS-HARDSUB(ARG)
      \CoNCompClassH[sub][sup][arg] = CONCOMPCLASS-HARDSUB(ARG)
      \NCompClassC[sub][sup][arg] = NCOMPCLASS-COMPLETESUB(ARG)
      \CoNCompClassC[sub][sup][arg] = CONCOMPCLASS-COMPLETESUB(ARG)

      \UCompClass[sub][sup][arg] = UCOMPCLASSSUB(ARG)
      \CoUCompClass[sub][sup][arg] = COUCOMPCLASSSUB(ARG)
      \UCompClassE[sub][sup][arg] = UCOMPCLASS-EASYSUB(ARG)
      \CoUCompClassE[sub][sup][arg] = COUCOMPCLASS-EASYSUB(ARG)
      \UCompClassH[sub][sup][arg] = UCOMPCLASS-HARDSUB(ARG)
      \CoUCompClassH[sub][sup][arg] = COUCOMPCLASS-HARDSUB(ARG)
      \UCompClassC[sub][sup][arg] = UCOMPCLASS-COMPLETESUB(ARG)
      \CoUCompClassC[sub][sup][arg] = COUCOMPCLASS-COMPLETESUB(ARG)

      \ACompClass[sub][sup][arg] = ACOMPCLASSSUB(ARG)

```

```

\CoACompClass[sub][sup][arg] = CoACOMPCLASSSUB(ARG)
\ACompClassE[sub][sup][arg] = ACOMPCLASS-EASYSUB(ARG)
\CoACompClassE[sub][sup][arg] = CoACOMPCLASS-EASYSUB(ARG)
\ACompClassH[sub][sup][arg] = ACOMPCLASS-HARDSUB(ARG)
\CoACompClassH[sub][sup][arg] = CoACOMPCLASS-HARDSUB(ARG)
\ACompClassC[sub][sup][arg] = ACOMPCLASS-COMPLETESUB(ARG)
\CoACompClassC[sub][sup][arg] = CoACOMPCLASS-COMPLETESUB(ARG)
• \defcomclsggrp{CompClass}[NewClass];

\CompClass[sub][sup][arg] = NEWCLASSSUB(ARG)
\CoCompClass[sub][sup][arg] = CoNEWCLASSSUB(ARG)
\CompClassE[sub][sup][arg] = NEWCLASS-EASYSUB(ARG)
\CoCompClassE[sub][sup][arg] = CoNEWCLASS-EASYSUB(ARG)
\CompClassH[sub][sup][arg] = NEWCLASS-HARDSUB(ARG)
\CoCompClassH[sub][sup][arg] = CoNEWCLASS-HARDSUB(ARG)
\CompClassC[sub][sup][arg] = NEWCLASS-COMPLETESUB(ARG)
\CoCompClassC[sub][sup][arg] = CoNEWCLASS-COMPLETESUB(ARG)

\DCompClass[sub][sup][arg] = DNEWCLASSSUB(ARG)
\CoDCompClass[sub][sup][arg] = CoDNEWCLASSSUB(ARG)
\DCompClassE[sub][sup][arg] = DNEWCLASS-EASYSUB(ARG)
\CoDCompClassE[sub][sup][arg] = CoDNEWCLASS-EASYSUB(ARG)
\DCompClassH[sub][sup][arg] = DNEWCLASS-HARDSUB(ARG)
\CoDCompClassH[sub][sup][arg] = CoDNEWCLASS-HARDSUB(ARG)
\DCompClassC[sub][sup][arg] = DNEWCLASS-COMPLETESUB(ARG)
\CoDCompClassC[sub][sup][arg] = CoDNEWCLASS-COMPLETESUB(ARG)

\NCompClass[sub][sup][arg] = NNEWCLASSSUB(ARG)
\CoNCompClass[sub][sup][arg] = CoNNEWCLASSSUB(ARG)
\NCompClassE[sub][sup][arg] = NNEWCLASS-EASYSUB(ARG)
\CoNCompClassE[sub][sup][arg] = CoNNEWCLASS-EASYSUB(ARG)
\NCompClassH[sub][sup][arg] = NNEWCLASS-HARDSUB(ARG)
\CoNCompClassH[sub][sup][arg] = CoNNEWCLASS-HARDSUB(ARG)
\NCompClassC[sub][sup][arg] = NNEWCLASS-COMPLETESUB(ARG)
\CoNCompClassC[sub][sup][arg] = CoNNEWCLASS-COMPLETESUB(ARG)

\UCompClass[sub][sup][arg] = UNEWCLASSSUB(ARG)
\CoUCompClass[sub][sup][arg] = CoUNEWCLASSSUB(ARG)
\UCompClassE[sub][sup][arg] = UNEWCLASS-EASYSUB(ARG)
\CoUCompClassE[sub][sup][arg] = CoUNEWCLASS-EASYSUB(ARG)
\UCompClassH[sub][sup][arg] = UNEWCLASS-HARDSUB(ARG)
\CoUCompClassH[sub][sup][arg] = CoUNEWCLASS-HARDSUB(ARG)
\UCompClassC[sub][sup][arg] = UNEWCLASS-COMPLETESUB(ARG)
\CoUCompClassC[sub][sup][arg] = CoUNEWCLASS-COMPLETESUB(ARG)

\ACompClass[sub][sup][arg] = ANEWCLASSSUB(ARG)
\CoACompClass[sub][sup][arg] = CoANEWCLASSSUB(ARG)
\ACompClassE[sub][sup][arg] = ANEWCLASS-EASYSUB(ARG)
\CoACompClassE[sub][sup][arg] = CoANEWCLASS-EASYSUB(ARG)
\ACompClassH[sub][sup][arg] = ANEWCLASS-HARDSUB(ARG)
\CoACompClassH[sub][sup][arg] = CoANEWCLASS-HARDSUB(ARG)
\ACompClassC[sub][sup][arg] = ANEWCLASS-COMPLETESUB(ARG)
\CoACompClassC[sub][sup][arg] = CoANEWCLASS-COMPLETESUB(ARG)

1055 \newcommandx{\defcomclsggrp}[2][2=]
1056   {\defcomclsggrpsem{#1}{\defval{#2}{#1}}%
1057   \defcomclsggrpsem{#1}{\defval{#2}{#1}}[Co]}
1058 \newcommandx{\defcomclsgrpsem}[3][3=]
1059   {\defcomclsgrpred{#3#1}{#2}{#3}%
1060   \defcomclsgrpred{#3D#1}{#2}{#3D}%
1061   \defcomclsgrpred{#3N#1}{#2}{#3N}%
1062   \defcomclsgrpred{#3U#1}{#2}{#3U}%
1063   \defcomclsgrpred{#3A#1}{#2}{#3A}}
1064 \newcommandx{\defcomclsgrpred}[3][3=]
1065   {\defcomclsgrpcomd{#1}{#2}{#3}%

```

```

1066 \defcomclsgrpcmd{#1E}{#2}{#3}[-easy]%
1067 \defcomclsgrpcmd{#1H}{#2}{#3}[-hard]%
1068 \defcomclsgrpcmd{#1C}{#2}{#3}[-complete]]%
1069 \newcommandx{\defcomclsgrpcmd}[4][3=, 4=]
1070 {\csdef{#1}{\txttoargcom{#3#2#4}}}

\defcomhrc ... to do!
    • \defcomhrc{CompHierarchy};

      CompHierarchy[sub][sup][par] = COMPHIERARCHYSUB[PAR]

    • \defcomhrc{CompHierarchy}[NewHierarchy];

      CompHierarchy[sub][sup][par] = NEWHIERARCHYSUB[PAR]

1071 \newcommandx{\defcomhrc}[2][2=]
1072 {\csdef{#1}{\txttoparcom{\defval{#2}{#1}}}}

1073 %%*****%

```

\Easy, \Hard, ...

```

1074 \cmdtxtcom{Easy}
1075 \cmdtxtcom{Hard}
1076 \cmdtxtcom{Complete}

1077 %%*****%

\FPT    • \FPT[sub][sup][arg] = FPTSUB(ARG)
1078 \defcomcls{FPT}

1079 %%*****%

```

\Time, ...

```

    • \Time[sub][sup][arg] = TIMESUB(ARG)
      \TimeE[sub][sup][arg] = TIME-EASYSUB(ARG)
      \TimeH[sub][sup][arg] = TIME-HARDSUB(ARG)
      \TimeC[sub][sup][arg] = TIME-COMPLETESUB(ARG)

    • \DTime[sub][sup][arg] = DTIMESUB(ARG)
      \DTimeE[sub][sup][arg] = DTIME-EASYSUB(ARG)
      \DTimeH[sub][sup][arg] = DTIME-HARDSUB(ARG)
      \DTimeC[sub][sup][arg] = DTIME-COMPLETESUB(ARG)

    • \NTime[sub][sup][arg] = NTIMESUB(ARG)
      \NTimeE[sub][sup][arg] = NTIME-EASYSUB(ARG)
      \NTimeH[sub][sup][arg] = NTIME-HARDSUB(ARG)
      \NTimeC[sub][sup][arg] = NTIME-COMPLETESUB(ARG)

    • \UTime[sub][sup][arg] = UTIMESUB(ARG)
      \UTimeE[sub][sup][arg] = UTIME-EASYSUB(ARG)
      \UTimeH[sub][sup][arg] = UTIME-HARDSUB(ARG)
      \UTimeC[sub][sup][arg] = UTIME-COMPLETESUB(ARG)

    • \ATime[sub][sup][arg] = ATIMESUB(ARG)
      \ATimeE[sub][sup][arg] = ATIME-EASYSUB(ARG)
      \ATimeH[sub][sup][arg] = ATIME-HARDSUB(ARG)
      \ATimeC[sub][sup][arg] = ATIME-COMPLETESUB(ARG)

```

```

1080 \defcomclsgrp{Time}

```

\Space, ...

```

    • \Space[sub][sup][arg] = SPACESUB(ARG)
      \SpaceE[sub][sup][arg] = SPACE-EASYSUB(ARG)
      \SpaceH[sub][sup][arg] = SPACE-HARDSUB(ARG)
      \SpaceC[sub][sup][arg] = SPACE-COMPLETESUB(ARG)

    • \DSpace[sub][sup][arg] = DSPACESUB(ARG)
      \DSpaceE[sub][sup][arg] = DSPACE-EASYSUB(ARG)
      \DSpaceH[sub][sup][arg] = DSPACE-HARDSUB(ARG)
      \DSpaceC[sub][sup][arg] = DSPACE-COMPLETESUB(ARG)

```

```
1081 \def comclsgrp{Space}
```

```
1082 \defcomclsgrp{LogTime}
```

```
1083 \def comclsgrp{LogSpace}
```

\PTime, ...

- \PTime[sub][sup][arg] = PTIME<sub>SUB</sub><sup>SUP</sup>(ARG)
- \PTimeE[sub][sup][arg] = PTIME-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \PTimeH[sub][sup][arg] = PTIME-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \PTimeC[sub][sup][arg] = PTIME-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DPTIME[sub][sup][arg] = DPTIME<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DPTIMEE[sub][sup][arg] = DPTIME-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DPTIMEH[sub][sup][arg] = DPTIME-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DPTIMEC[sub][sup][arg] = DPTIME-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NPTime[sub][sup][arg] = NPTime<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NPTimeE[sub][sup][arg] = NPTime-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NPTimeH[sub][sup][arg] = NPTime-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NPTimeC[sub][sup][arg] = NPTime-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UPTIME[sub][sup][arg] = UPTIME<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UPTIMEE[sub][sup][arg] = UPTIME-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UPTIMEH[sub][sup][arg] = UPTIME-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UPTIMEC[sub][sup][arg] = UPTIME-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \APTime[sub][sup][arg] = APTime<sub>SUB</sub><sup>SUP</sup>(ARG)
- \APTimeE[sub][sup][arg] = APTime-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \APTimeH[sub][sup][arg] = APTime-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \APTimeC[sub][sup][arg] = APTime-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)

1084 \defcomclsggrp{PTime}

\PSpace, ...

- \PSpace[sub][sup][arg] = PSPACE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \PSpaceE[sub][sup][arg] = PSPACE-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \PSpaceH[sub][sup][arg] = PSPACE-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \PSpaceC[sub][sup][arg] = PSPACE-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DPSpace[sub][sup][arg] = DPSpace<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DPSpaceE[sub][sup][arg] = DPSpace-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DPSpaceH[sub][sup][arg] = DPSpace-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DPSpaceC[sub][sup][arg] = DPSpace-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NPSpace[sub][sup][arg] = NPSpace<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NPSpaceE[sub][sup][arg] = NPSpace-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NPSpaceH[sub][sup][arg] = NPSpace-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NPSpaceC[sub][sup][arg] = NPSpace-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UPSpace[sub][sup][arg] = UPSpace<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UPSpaceE[sub][sup][arg] = UPSpace-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UPSpaceH[sub][sup][arg] = UPSpace-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UPSpaceC[sub][sup][arg] = UPSpace-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \APSpace[sub][sup][arg] = APSPACE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \APSpaceE[sub][sup][arg] = APSPACE-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \APSpaceH[sub][sup][arg] = APSPACE-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \APSpaceC[sub][sup][arg] = APSPACE-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)

1085 \defcomclsggrp{PSpace}

\QPTIME, ...

- \QPTIME[sub][sup][arg] = QPTIME<sub>SUB</sub><sup>SUP</sup>(ARG)
- \QPTIMEE[sub][sup][arg] = QPTIME-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \QPTIMEH[sub][sup][arg] = QPTIME-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \QPTIMEC[sub][sup][arg] = QPTIME-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DQPTIME[sub][sup][arg] = DQPTIME<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DQPTIMEE[sub][sup][arg] = DQPTIME-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DQPTIMEH[sub][sup][arg] = DQPTIME-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \DQPTIMEC[sub][sup][arg] = DQPTIME-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NQPTIME[sub][sup][arg] = NQPTIME<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NQPTIMEE[sub][sup][arg] = NQPTIME-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NQPTIMEH[sub][sup][arg] = NQPTIME-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \NQPTIMEC[sub][sup][arg] = NQPTIME-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UQPTIME[sub][sup][arg] = UQPTIME<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UQPTIMEE[sub][sup][arg] = UQPTIME-EASY<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UQPTIMEH[sub][sup][arg] = UQPTIME-HARD<sub>SUB</sub><sup>SUP</sup>(ARG)
- \UQPTIMEC[sub][sup][arg] = UQPTIME-COMPLETE<sub>SUB</sub><sup>SUP</sup>(ARG)





- $\backslash\text{NExpSpace}[\text{sub}][\text{sup}][\text{arg}] = \text{NEXPSPACE}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{NExpSpaceE}[\text{sub}][\text{sup}][\text{arg}] = \text{NEXPSPACE-EASY}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{NExpSpaceH}[\text{sub}][\text{sup}][\text{arg}] = \text{NEXPSPACE-HARD}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{NExpSpaceC}[\text{sub}][\text{sup}][\text{arg}] = \text{NEXPSPACE-COMplete}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{UExpSpace}[\text{sub}][\text{sup}][\text{arg}] = \text{UEXPSPACE}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{UExpSpaceE}[\text{sub}][\text{sup}][\text{arg}] = \text{UEXPSPACE-EASY}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{UExpSpaceH}[\text{sub}][\text{sup}][\text{arg}] = \text{UEXPSPACE-HARD}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{UExpSpaceC}[\text{sub}][\text{sup}][\text{arg}] = \text{UEXPSPACE-COMplete}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{AExpSpace}[\text{sub}][\text{sup}][\text{arg}] = \text{AEXPSPACE}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{AExpSpaceE}[\text{sub}][\text{sup}][\text{arg}] = \text{AEXPSPACE-EASY}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{AExpSpaceH}[\text{sub}][\text{sup}][\text{arg}] = \text{AEXPSPACE-HARD}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$
- $\backslash\text{AExpSpaceC}[\text{sub}][\text{sup}][\text{arg}] = \text{AEXPSPACE-COMplete}_{\text{SUB}}^{\text{SUP}}(\text{ARG})$

```

1089 \defcomclsggrp{ExpSpace}

1090 %*****%

\PH      • \PH[sub][sup][par] = PH_{SUB}^{SUP}[PAR]
1091 \defcomhrc{PH}

\WH      • \WH[sub][sup][par] = W_{SUB}^{SUP}[PAR]
1092 \defcomhrc{WH}[W]

\AH      • \AH[sub][sup][par] = A_{SUB}^{SUP}[PAR]
1093 \defcomhrc{AH}[A]

\DLH, \DBH      • \DLH[sub][sup][par] = \Delta_{SUB}^{SUP}[PAR]
                  • \DBH[sub][sup][par] = \Delta_{SUB}^{SUP}[PAR]
1094 \defcomhrc{DLH}[\{\mth{\Delta}\}]
1095 \defcomhrc{DBH}[\{\mth[mathbf]{\Delta}\}]

\ELH, \EBH      • \ELH[sub][sup][par] = \Sigma_{SUB}^{SUP}[PAR]
                  • \EBH[sub][sup][par] = \Sigma_{SUB}^{SUP}[PAR]
1096 \defcomhrc{ELH}[\{\mth{\Sigma}\}]
1097 \defcomhrc{EBH}[\{\mth[mathbf]{\Sigma}\}]

\ULH, \UBH      • \ULH[sub][sup][par] = \Pi_{SUB}^{SUP}[PAR]
                  • \UBH[sub][sup][par] = \Pi_{SUB}^{SUP}[PAR]
1098 \defcomhrc{ULH}[\{\mth{\Pi}\}]
1099 \defcomhrc{UBH}[\{\mth[mathbf]{\Pi}\}]

1100 \fi
1101 %*****%
1102 %*****%
1103 %** Macros for Games *****%
1104 %*****%
1105 \ifgam@
1106 %** Logic Games *****%

\SATG, ... ...
1107 % Satisfiability Games
1108 \cmdtxtoparname{SATG}[Sat]
1109
1110 % Validity Games
1111 \cmdtxtoparname{VALG}[Val]
1112
1113 % Evaluation Games
1114 \cmdtxtoparname{EVLG}[Evl]
1115
1116 % Synthesis Games
1117 \cmdtxtoparname{SYNG}[Syn]

```

```

1118
1119 %% Model-Checking Games
1120 \cmdtxttoparname{MCG}[MC]
1121
1122 %% Ehrenfeucht-Fraisse Games
1123 \cmdtxttoparname{EFG}[EF]

1124 %** Syntax *****%

```

\PlrSym, \OppSym ...

```

1125 \newcommand{\plrsym}{E}
1126 \cmdmthsym{Plr}[\plrsym]
1127 \newcommand{\oppsym}{A}
1128 \cmdmthsym{Opp}[\oppsym]

```

\ArenaName, ...

```

1129 \newcommand{\arenaname}{A}
1130 \usrmthlatupp{Arena}{Name}{name}[\arenaname]

```

\PosSet, ...

```

1131 \newcommand{\possym}{v}
1132 \newcommand{\posset}{Ps}
1133 \cmdmthsetext{Pos}[\posset][\possym]
1134 \cmdmthsymelm{ipos}[\possym_{I}]
1135 \cmdmthsymelm{fpos}[\possym_{F}]
1136 \cmdmthset{PPos}[\posset_{\PlrSym}]
1137 \cmdmthsymelm{ppos}[\possym_{\PlrSym}]
1138 \cmdmthset{OPos}[\posset_{\OppSym}]
1139 \cmdmthsymelm{opos}[\possym_{\OppSym}]

```

\PlrFun ...

```

1140 \newcommand{\plrfun}{pl}
1141 \cmdmthfun{plr}[\plrfun]

```

\MovRel ...

```

1142 \newcommand{\movrel}{Mv}
1143 \cmdmthrel{Mov}[\movrel]

```

\GameName, ...

```

1144 \newcommand{\gamename}{Game}
1145 \usrmthlatupp{Game}{Name}{name}[\gamename]

```

\WinSet ...

```

1146 \newcommand{\winset}{Wn}
1147 \cmdmthset{Win}[\winset]

```

\ObsSet, \obsFun ...

```

1148 \newcommand{\obsset}{Ob}
1149 \cmdmthset{Obs}[\obsset]
1150 \cmdmthfun{obs}

```

```

1151 %** Semantics *****%

```

\PthSet, \pthFun ...

```

1152 \newcommand{\pthsym}{pi}
1153 \newcommand{\pthset}{Pth}
1154 \cmdmthsetext{Pth}[\pthset][\pthsym]
1155 \cmdmthfun{pth}

```

\HstSet, ...

```

1156 \newcommand{\hstsym}{rho}
1157 \newcommand{\hstset}{Hst}
1158 \cmdmthsetext{Hst}[\hstset][\hstsym]

```

```

1159 \cmdmthset{PHst}[\hstset_{\PlrSym}]
1160 \cmdmthsymelm{phst}[\hstsym_{\PlrSym}]
1161 \cmdmthset{OHst}[\hstset_{\OppSym}]
1162 \cmdmthsymelm{ohst}[\hstsym_{\OppSym}]
1163 \cmdmthfun{hst}

\PlaySet, \playFun ...
1164 \newcommand{\playsym}{\pi}
1165 \newcommand{\playset}{\Play}
1166 \cmdmthsetext{Play}[\playset][\playsym]
1167 \cmdmthfun{play}

\StrSet, ... ...
1168 \newcommand{\strsym}{\sigma}
1169 \newcommand{\strset}{\Str}
1170 \cmdmthsetext{Str}[\strset][\strsym]
1171 \cmdmthset{PStr}[\strset_{\PlrSym}]
1172 \cmdmthsymelm{pstr}[\strsym_{\PlrSym}]
1173 \cmdmthset{OStr}[\strset_{\OppSym}]
1174 \cmdmthsymelm{ostr}[\strsym_{\OppSym}]

\PrfSet, \prfFun ...
1175 \newcommand{\prfsym}{\xi}
1176 \newcommand{\prfset}{\Prf}
1177 \cmdmthsetext{Prf}[\prfset][\prfsym]

\preFun, \sucFun ...
1178 \newcommand{\prefun}{\pre}
1179 \cmdmthoargfun{pre}[\prefun]
1180 \newcommand{\sucfun}{\suc}
1181 \cmdmthoargfun{suc}[\sucfun]

\entFun, \escFun ...
1182 \newcommand{\entfun}{\ent}
1183 \cmdmthoargfun{ent}[\entfun]
1184 \newcommand{\escfun}{\esc}
1185 \cmdmthoargfun{esc}[\escfun]

\intFun, \outFun ...
1186 \newcommand{\intfun}{\int}
1187 \cmdmthoargfun{int}[\intfun]
1188 \newcommand{\outfun}{\out}
1189 \cmdmthoargfun{out}[\outfun]

\atrFun, \rchFun ...
1190 \newcommand{\atrfun}{\atr}
1191 \cmdmthoargfun{atr}[\atrfun]
1192 \newcommand{\rchfun}{\rch}
1193 \cmdmthoargfun{rch}[\rchfun]

\liftFun ...
1194 \newcommand{\liftfun}{\lift}
1195 \cmdmthoargfun{lift}[\liftfun]

\solFun ...
1196 \newcommand{\solfun}{\sol}
1197 \cmdmthoargfun{sol}[\solfun]

1198 %** Qualitative Games on Graph *****%

```

```

\BG, ... ...
1199 %% Buchi Games
1200 \cmdtxttoparname{BG}
1201
1202 %% Co-Buchi Games
1203 \cmdtxttoparname{CG}
1204
1205 %% Parity Games
1206 \cmdtxttoparname{PG}
1207
1208 %% Rabin Games
1209 \cmdtxttoparname{RG}
1210
1211 %% Streett Games
1212 \cmdtxttoparname{SG}
1213
1214 %% Muller Games
1215 \cmdtxttoparname{MG}

1216 %** Syntax *****%%

\EvnSym, \OddSym ...
1217 \newcommand{\evnsym}{0}
1218 \cmdmthsym{Evnsym}[\evnsym]
1219 \newcommand{\oddsym}{1}
1220 \cmdmthsym{Oddsym}[\oddsym]

\PrtSet, \prtFun ...
1221 \newcommand{\prtsym}{p}
1222 \newcommand{\prtset}{Pr}
1223 \cmdmthsetext{Prt}[\prtset][\prtsym]
1224 \cmdmthfun{prt}[pr]

1225 %** Semantics *****%%
...
1226 %** Quantitative Games on Graph *****%%

\EG, ... ...
1227 %% Energy Games
1228 \cmdtxttoparname{EG}
1229
1230 %% Mean-Payoff Games
1231 \cmdtxttoparname{MPG}
1232
1233 %% Discounted-Payoff Games
1234 \cmdtxttoparname{DPG}

1235 %** Syntax *****%%

\MaxSym, \MinSym ...
1236 \newcommand{\maxsym}{\oplus}
1237 \cmdmthsym{Max}[\maxsym]
1238 \newcommand{\minsym}{\boxminus}
1239 \cmdmthsym{Min}[\minsym]

\WghSet, \wghFun ...
1240 \newcommand{\wghsym}{w}
1241 \newcommand{\wghset}{Wg}
1242 \cmdmthsetext{Wgh}[\wghset][\wghsym]
1243 \cmdmthfun{wgh}[wg]

1244 %** Semantics *****%%

```

```

...
1245 \fi
1246 %*****
1247 %*****
1248 %** Macros for Logics *****
1249 %*****
1250 \iflog@
1251 %** Propositional Logics *****

\BF, \QBF, ... ...
1252 % Boolean Formulae
1253 \cmdtxttoparname{BF}
1254
1255 % Quantified Boolean Formulae
1256 \DeclareRobustCommand{\QBF}
1257   {\{\textname{Q}\}\BF}
1258 \DeclareRobustCommand{\EBF}
1259   {\ensuremath{\exists}\BF}
1260 \DeclareRobustCommand{\UBF}
1261   {\ensuremath{\forall}\BF}

1262 %** Syntax *****

\LogSig, ... ...
1263 \newcommand{\logsig}{L}
1264 \usrmthlatupp{Log}{Sig}{sig}[\logsig]

\Tt, \Ff ...
1265 \newcommand{\ttsym}{\top}
1266 \usrmth{Tt}{\}{sym}[\ttsym]
1267 \newcommand{\ffsym}{\bot}
1268 \usrmth{Ff}{\}{sym}[\ffsym]

\LNeg, \LNot ...
1269 \newcommand{\lnegsym}{\neg}
1270 \usrmth{LNeg}{\}{luop}[\lnegsym]
1271 \newcommand{\lnotsym}{\sim}
1272 \usrmth{LNot}{\}{luop}[\lnotsym]

\LCon, \LDis ...
1273 \newcommand{\lconsym}{\land}
1274 \usrmth{LCon}{\}{lbop}[\lconsym]
1275 \newcommand{\ldissym}{\lor}
1276 \usrmth{LDis}{\}{lbop}[\ldissym]

\LImp, \LCoi ...
1277 \newcommand{\limpsym}{\rightarrow}
1278 \usrmth{LImp}{\}{lbop}[\limpsym]
1279 \newcommand{\lcoisym}{\leftrightarrow}
1280 \usrmth{LCoi}{\}{lbop}[\lcoisym]

\LExs, \LAll ...
1281 \newcommand{\lexssym}{\exists}
1282 \usrmth{LExs}{\}{luop}[\lexssym]
1283 \newcommand{\lallsym}{\forall}
1284 \usrmth{LAll}{\}{luop}[\lallsym]

\APSet, ... ...
1285 \newcommand{\apsym}{p}
1286 \newcommand{\apset}{AP}
1287 \cmdmthsetext{AP}[\apset] [\apsym]
1288 \cmdmthfun{ap}\usrmth{ap}{\}{argfun}

```

```

\sub ...
1289 \usrmth{sub}{-}{argfun}

\Cnt, \Qnt, \Sym ...
1290 \usrmth{Cnt}{-}{sym}[C]
1291 \usrmth{Qnt}{-}{sym}[Q]
1292 \usrmth{Sym}{-}{sym}[\odot]

\QAE, \QEA ...
1293 \usrmth{QAE}{-}{sym}[\forall\exists]
1294 \usrmth{QEA}{-}{sym}[\exists\forall]

\QntSet, ... ...
1295 \newcommand{\qntsym}{\wp}
1296 \newcommand{\qntset}{Qn}
1297 \cmdmthsetext{Qnt}[\qntset][\qntsym]

\free, \bound ...
1298 \usrmth{free}{-}{argfun}
1299 \usrmth{bound}{-}{argfun}

\dep, \alt ...
1300 \usrmth{dep}{-}{argfun}
1301 \usrmth{alt}{-}{argfun}

\cnf, \dnf, ... ...
1302 \cmdtxtabr{cnf}
1303 \cmdtxtabr{dnf}
1304 \cmdtxtabr{pnf}
1305 \cmdtxtabr{nnf}

1306 %** Semantics *****%

\LogStr, ... ...
1307 \newcommand{\logstr}{L}
1308 \usrmthlatupp{Log}{Str}{str}[\logstr]

\ValSet, ... ...
1309 \newcommand{\valsym}{\xi}
1310 \newcommand{\valset}{Val}
1311 \cmdmthsetext{Val}[\valset][\valsym]

\AsgSet, ... ...
1312 \newcommand{\asgsym}{\chi}
1313 \newcommand{\asgset}{Asg}
1314 \cmdmthsetext{Asg}[\asgset][\asgsym]

1315 %** First-Order Logics I *****%

\FOL, ... ...
1316 % First-Order Logic
1317 \cmdtxtoparname{FOL}[Fol]
1318 \cmdtxtoparname{FO}[FO]
1319
1320 % Monadic First-Order Logic
1321 \DeclareRobustCommand{\MFOL}
1322   {\{\txname{M}\}\FOL}
1323 \DeclareRobustCommand{\MFO}
1324   {\{\txname{M}\}\FO}

1325 %** Syntax *****%

```

```

\VarSig, ... ...
1326 \newcommand{\varsig}{V}
1327 \usrmthlatupp{Var}{Sig}{sig}[\varsig]
1328 \newcommand{\varsym}{x}
1329 \newcommand{\varset}{Vr}
1330 \cmdmthsetext{Var}[\varset][\varsym]
1331 \usrmth{var}{-}{argfun}[vr]
1332 \cmdmthfun{dim}[dm]\usrmth{dim}{-}{argfun}[dm]

\ConSig, ... ...
1333 \newcommand{\consig}{C}
1334 \usrmthlatupp{Con}{Sig}{sig}[\consig]
1335 \newcommand{\consym}{c}
1336 \newcommand{\conset}{Cn}
1337 \cmdmthsetext{Con}[\conset][\consym]
1338 \usrmth{con}{-}{argfun}[cn]

\FunSig, ... ...
1339 \newcommand{\funsig}{F}
1340 \usrmthlatupp{Fun}{Sig}{sig}[\funsig]
1341 \newcommand{\funsym}{f}
1342 \newcommand{\funset}{Fn}
1343 \cmdmthsetext{Fun}[\funset][\funsym]
1344 \usrmth{fun}{-}{argfun}[fn]
1345 \cmdmthfun{art}[ar]\usrmth{art}{-}{argfun}[ar]

\TerSig, ... ...
1346 \newcommand{\tersig}{T}
1347 \usrmthlatupp{Ter}{Sig}{sig}[\tersig]
1348 \newcommand{\tersym}{t}
1349 \newcommand{\terset}{Tr}
1350 \cmdmthsetext{Ter}[\terset][\tersym]
1351 \usrmth{ter}{-}{argfun}

\RelSig, ... ...
1352 \newcommand{\relsig}{R}
1353 \usrmthlatupp{Rel}{Sig}{sig}[\relsig]
1354 \newcommand{\relsym}{r}
1355 \newcommand{\relset}{Rl}
1356 \cmdmthsetext{Rel}[\relset][\relsym]
1357 \usrmth{rel}{-}{argfun}[rl]

\skm ...
1358 \usrmth{skm}{-}{argfun}

1359 %** Semantics *****%

\ConStr, ... ...
1360 \newcommand{\constr}{C}
1361 \usrmthlatupp{Con}{Str}{str}[\constr]

\FunStr, ... ...
1362 \newcommand{\funstr}{F}
1363 \usrmthlatupp{Fun}{Str}{str}[\funstr]

\TerStr, ... ...
1364 \newcommand{\terstr}{T}
1365 \usrmthlatupp{Ter}{Str}{str}[\terstr]

\RelStr, ... ...
1366 \newcommand{\relstr}{R}
1367 \usrmthlatupp{Rel}{Str}{str}[\relstr]

```



```

1368 %** First-Order Logics II *****%%
\DF, \IF, ... ...
1369 % Dependence-Friendly Logic
1370 \cmdtxtoparname{DF}
1371
1372 % Independence-Friendly Logic
1373 \cmdtxtoparname{IF}
1374
1375 % Dependence/Independence-Friendly Logic
1376 \cmdtxtoparname{DIF}
1377
1378 % Dependence Logic
1379 \cmdtxtoparname{DL}
1380
1381 % Team Logic
1382 \cmdtxtoparname{TL}
1383
1384 % Alternating Dependence-Friendly Logic
1385 \cmdtxtoparname{ADF}
1386
1387 % Alternating Independence-Friendly Logic
1388 \cmdtxtoparname{AIF}
1389
1390 % Alternating Dependence/Independence-Friendly Logic
1391 \cmdtxtoparname{ADIF}
...
1392 %** Syntax *****%%

\LEExs, \LAA11 ...
1393 \newcommand{\leexssym}{\Sigma}
1394 \usrmth{LEExs}{\luop}{\leexssym}
1395 \newcommand{\laallsym}{\Pi}
1396 \usrmth{LAA11}{\luop}{\laallsym}

1397 %** Semantics *****%%
...
1398 %** Second-Order Logics I *****%%

\SOL, ... ...
1399 % Second-Order Logic
1400 \cmdtxtoparname{SOL}[Sol]
1401 \cmdtxtoparname{SO}
1402
1403 % Weak Second-Order Logic
1404 \DeclareRobustCommand{\WSOL}
1405   {\{\txtname{W}\}\SOL}
1406 \DeclareRobustCommand{\WSO}
1407   {\{\txtname{W}\}\SO}
1408
1409 % coWeak Second-Order Logic
1410 \DeclareRobustCommand{\coWSOL}
1411   {\{\txtname{coW}\}\SOL}
1412 \DeclareRobustCommand{\coWSO}
1413   {\{\txtname{coW}\}\SO}
1414
1415 % Monadic Second-Order Logic
1416 \DeclareRobustCommand{\MSOL}
1417   {\{\txtname{M}\}\SOL}
1418 \DeclareRobustCommand{\MSO}
1419   {\{\txtname{M}\}\SO}

```

```

1420
1421 % Weak Monadic Second-Order Logic
1422 \DeclareRobustCommand{\WMSOL}
1423   {\txtname{W}}\MSOL}
1424 \DeclareRobustCommand{\WMSO}
1425   {\txtname{W}}\MSO}
1426
1427 % coWeak Monadic Second-Order Logic
1428 \DeclareRobustCommand{\coWMSOL}
1429   {\txtname{coW}}\MSOL}
1430 \DeclareRobustCommand{\coWMSO}
1431   {\txtname{coW}}\MSO}

1432 %** Syntax *****%

\FVarSet, ... ...
1433 \newcommand{\fvarsym}{x}
1434 \newcommand{\fvarset}{FVr}
1435 \cmdmthsettext{FVar}[\fvarset][\fvarsym]

\SVarSet, ... ...
1436 \newcommand{\svarsym}{X}
1437 \newcommand{\svarset}{SVr}
1438 \cmdmthsettext{SVar}[\svarset][\svarsym]

1439 %** Semantics *****%
...
1440 %** Second-Order Logics II *****%

\TL, \PL, ... ...
1441 % Tree Logic
1442 \cmdtxttoparname{TL}
1443
1444 % Weak Tree Logic
1445 \DeclareRobustCommand{\WTL}
1446   {\txtname{W}}\TL}
1447
1448 % coWeak Tree Logic
1449 \DeclareRobustCommand{\coWTL}
1450   {\txtname{coW}}\TL}
1451
1452 % Monadic Tree Logic
1453 \DeclareRobustCommand{\MTL}
1454   {\txtname{M}}\TL}
1455
1456 % Weak Monadic Tree Logic
1457 \DeclareRobustCommand{\WMTL}
1458   {\txtname{W}}\MTL}
1459
1460 % coWeak Monadic Tree Logic
1461 \DeclareRobustCommand{\coWMTL}
1462   {\txtname{coW}}\MTL}
1463
1464 % Path Logic
1465 \cmdtxttoparname{PL}
1466
1467 % Weak Path Logic
1468 \DeclareRobustCommand{\WPL}
1469   {\txtname{W}}\PL}
1470
1471 % coWeak Path Logic
1472 \DeclareRobustCommand{\coWPL}
1473   {\txtname{coW}}\PL}

```

```

1474
1475 % Monadic Path Logic
1476 \DeclareRobustCommand{\MPL}
1477   {\txtname{M}}\PL}
1478
1479 % Weak Monadic Path Logic
1480 \DeclareRobustCommand{\WMPL}
1481   {\txtname{W}}\MPL}
1482
1483 % coWeak Monadic Path Logic
1484 \DeclareRobustCommand{\coWMPL}
1485   {\txtname{coW}}\MPL}
1486 %** Syntax *****%
...
1487 %** Semantics *****%
...
1488 %** Modal Logics I *****%

\ML, \GML, ... ...
1489 % Modal Logic
1490 \cmdtxttoparname{ML}
1491
1492 % Graded Modal Logic
1493 \DeclareRobustCommand{\GML}
1494   {\txtname{G}}\ML}
1495
1496 % Quantified Modal Logic
1497 \DeclareRobustCommand{\QML}
1498   {\txtname{Q}}\ML}
1499 \DeclareRobustCommand{\EML}
1500   {\ensuremath{\exists}\ML}
1501 \DeclareRobustCommand{\UML}
1502   {\ensuremath{\forall}\ML}
1503 %** Syntax *****%

\Opr ...
1504 \usrmth{Opr}{\sym}[Op]

\DMod, \BMod ...
1505 \usrmth{DMod}{\sym}[\Diamond]
1506 \usrmth{BMod}{\sym}[\Box]

\Exs, \All ...
1507 \DeclareRobustCommand{\Exs}[1]
1508   {\mth{\defval{\argmid{\langle}{#1}{\rangle}}{\DMod}}}
1509 \DeclareRobustCommand{\All}[1]
1510   {\mth{\defval{\argmid{\left[]}{#1}{\right[]}}{\BMod}}}
1511 %** Semantics *****%

\KrpStr, ... ...
1512 \newcommand{\krpstr}{K}
1513 \usrmthlatupp{Krp}{Str}{str}[\krpstr]

\WrlSet, ... ...
1514 \newcommand{\wrlsym}{w}
1515 \newcommand{\wrlset}{W}
1516 \cmdmthsetext{Wrl}[\wrlset][\wrlsym]
1517 \cmdmthsymelm{iwrl}[\wrlsym_{I}]

```

```

\AccRel, \TrnRel ...
1518 \newcommand{\accsym}{R}
1519 \cmdmthrel{Acc}[\accsym]
1520 \cmdmthrel{Trn}[\accsym]

\labFun ...
1521 \newcommand{\labsym}{\lambda}
1522 \cmdmthfun{lab}[\labsym]

\PthSet, \pthFun ...
1523 \providecommand{\pthsym}{\pi}
1524 \providecommand{\pthset}{Pth}
1525 \cmdmthsetext{Pth}[\pthset][\pthsym]
1526 \cmdmthfun{pth}

1527 %** Modal Logics II *****%%

\MC, \GMC, ... ...
1528 % Mu Calculus
1529 \cmdtxtoparname{MC}[\ensuremath{\mu}-Calculus]
1530
1531 % Graded Mu Calculus
1532 \DeclareRobustCommand{\GMC}
1533   {\{\textrm{G}\}\MC}
1534
1535 % Quantified Mu Calculus
1536 \DeclareRobustCommand{\QMC}
1537   {\{\textrm{Q}\}\MC}
1538 \DeclareRobustCommand{\EMC}
1539   {\ensuremath{\exists}\MC}
1540 \DeclareRobustCommand{\UMC}
1541   {\ensuremath{\forall}\MC}
1542
1543 % Alternation-Free Mu Calculus
1544 \DeclareRobustCommand{\AFMC}
1545   {\{\textrm{AF}\}\MC}
1546
1547 % Alternation-Free Graded Mu Calculus
1548 \DeclareRobustCommand{\AFGMC}
1549   {\{\textrm{AF}\}\GMC}
1550
1551 % Quantified Alternation-Free Mu Calculus
1552 \DeclareRobustCommand{\QAFMC}
1553   {\{\textrm{Q}\}\AFMC}
1554 \DeclareRobustCommand{\EAFMC}
1555   {\ensuremath{\exists}\AFMC}
1556 \DeclareRobustCommand{\UAFMC}
1557   {\ensuremath{\forall}\AFMC}
1558

1559 %** Syntax *****%%

...

1560 %** Semantics *****%%

...

1561 %** Temporal Logics I *****%%

\PTL, \LTL, ... ...
1562 % Propositional Temporal Logic
1563 \cmdtxtoparname{PTL}
1564
1565 % Quantified Propositional Temporal Logic

```

```

1566 \DeclareRobustCommand{\QPTL}
1567   {\textname{Q}}\PTL}
1568 \DeclareRobustCommand{\EPTL}
1569   {\ensuremath{\exists}\PTL}
1570 \DeclareRobustCommand{\UPTL}
1571   {\ensuremath{\forall}\PTL}
1572
1573 % Linear Temporal Logic
1574 \cmdtxttoparname{LTL}
1575
1576 % Quantified Linear Temporal Logic
1577 \DeclareRobustCommand{\QLTL}
1578   {\textname{Q}}\LTL}
1579 \DeclareRobustCommand{\ELTL}
1580   {\ensuremath{\exists}\LTL}
1581 \DeclareRobustCommand{\ULTL}
1582   {\ensuremath{\forall}\LTL}
1583 %** Syntax *****%

```

\X, ... ..

```

1584 \usrmth{X}{}{sym}[X\,]
1585 \usrmth{F}{}{sym}[F\,]
1586 \usrmth{G}{}{sym}[G\,]
1587 \usrmth{U}{}{sym}[\,U\,]
1588 \usrmth{R}{}{sym}[\,R\,]

```

\Y, ... ..

```

1589 \usrmth{Y}{}{sym}[G\,]
1590 \usrmth{P}{}{sym}[P\,]\let\SavePildcrow\P
1591 \usrmth{H}{}{sym}[H\,]\let\SaveDoubleAcute\H
1592 \usrmth{S}{}{sym}[\,S\,]\let\SaveSectionSymbol\S
1593 \usrmth{B}{}{sym}[\,B\,]

```

```

1594 %** Semantics *****%

```

...

```

1595 %** Temporal Logics II *****%

```

\PDL, \CTL, ... ..

```

1596
1597 % Propositional Dynamic Logic
1598 \cmdtxttoparname{PDL}
1599
1600 % Computation Tree Logic
1601 \cmdtxttoparname{CTL}
1602
1603 % Weak Computation Tree Logic
1604 \DeclareRobustCommand{\WCTL}
1605   {\textname{W}}\CTL}
1606
1607 % Quantified Computation Tree Logic
1608 \DeclareRobustCommand{\QCTL}
1609   {\textname{Q}}\CTL}
1610 \DeclareRobustCommand{\ECTL}
1611   {\ensuremath{\exists}\CTL}
1612 \DeclareRobustCommand{\UCTL}
1613   {\ensuremath{\forall}\CTL}
1614
1615 % Improved Computation Tree Logic
1616 \cmdtxttoparname{CTLP}[CTL$^{+}$]
1617
1618 % Weak Improved Computation Tree Logic
1619 \DeclareRobustCommand{\WCTLP}

```

```

1620  {\txtname{W}}\CTLP}
1621
1622 % Quantified Improved Computation Tree Logic
1623 \DeclareRobustCommand{\QCTLP}
1624  {\txtname{Q}}\CTLP}
1625 \DeclareRobustCommand{\ECTLP}
1626  {\ensuremath{\exists}\CTLP}
1627 \DeclareRobustCommand{\UCTLP}
1628  {\ensuremath{\forall}\CTLP}
1629
1630 % Full Computation Tree Logic
1631 \cmdtxttoparname{CTLS}[CTL*]
1632
1633 % Weak Full Computation Tree Logic
1634 \DeclareRobustCommand{\WCTLS}
1635  {\txtname{W}}\CTLS}
1636
1637 % Quantified Full Computation Tree Logic
1638 \DeclareRobustCommand{\QCTLS}
1639  {\txtname{Q}}\CTLS}
1640 \DeclareRobustCommand{\ECTLS}
1641  {\ensuremath{\exists}\CTLS}
1642 \DeclareRobustCommand{\UCTLS}
1643  {\ensuremath{\forall}\CTLS}
1644 %** Syntax *****%

\E, \A ...
1645 \usrmth{E}{\sym}
1646 \usrmth{A}{\sym}
1647 %** Semantics *****%
...
1648 %** Strategic Logics I *****%

\ATL, ... ...
1649 % Alternating Temporal Logic
1650 \cmdtxttoparname{ATL}
1651
1652 % Weak Alternating Tree Logic
1653 \DeclareRobustCommand{\WATL}
1654  {\txtname{W}}\ATL}
1655
1656 % Quantified Alternating Temporal Logic
1657 \DeclareRobustCommand{\QATL}
1658  {\txtname{Q}}\ATL}
1659 \DeclareRobustCommand{\EATL}
1660  {\ensuremath{\exists}\ATL}
1661 \DeclareRobustCommand{\UATL}
1662  {\ensuremath{\forall}\ATL}
1663
1664 % Improved Alternating Temporal Logic
1665 \cmdtxttoparname{ATLP}[ATL$^{+}$]
1666
1667 % Weak Improved Alternating Tree Logic
1668 \DeclareRobustCommand{\WATLP}
1669  {\txtname{W}}\ATLP}
1670
1671 % Quantified Improved Alternating Temporal Logic
1672 \DeclareRobustCommand{\QATLP}
1673  {\txtname{Q}}\ATLP}
1674 \DeclareRobustCommand{\EATLP}
1675  {\ensuremath{\exists}\ATLP}

```

```

1676 \DeclareRobustCommand{\UATLP}
1677   {\ensuremath{\forall}\ATLP}
1678
1679 % Full Alternating Temporal Logic
1680 \cmdtxttoparname{ATLS}[ATL*]
1681
1682 % Weak Full Alternating Tree Logic
1683 \DeclareRobustCommand{\WATLS}
1684   {\{\textrmname{W}\}\ATLS}
1685
1686 % Quantified Full Alternating Temporal Logic
1687 \DeclareRobustCommand{\QATLS}
1688   {\{\textrmname{Q}\}\ATLS}
1689 \DeclareRobustCommand{\EATLS}
1690   {\ensuremath{\exists}\ATLS}
1691 \DeclareRobustCommand{\UATLS}
1692   {\ensuremath{\forall}\ATLS}
1693 %** Syntax *****%

\EExs, \AA11 ...
1694 \DeclareRobustCommand{\EExs}[1]
1695   {\mth{\argmid{\langle!\rangle}{\defval{#1}{\emptyset}}{\rangle!\rangle}}
1696 \DeclareRobustCommand{\AA11}[1]
1697   {\mth{\argmid{\left[\left[\defval{#1}{\emptyset}]{\right]\right}}{\right]\right}}
1698 %** Semantics *****%

\CGS ...
1699 \cmdtxtname{CGS}

\CGSStr, ... ...
1700 \newcommand{\cgsstr}{G}
1701 \usrmthlatupp{CGS}{Str}{str}[\cgsstr]

\AgnSet, ... ...
1702 \newcommand{\agnsym}{a}
1703 \newcommand{\agnset}{Ag}
1704 \cmdmthsetext{Agn}[\agnset][\agnsym]

\PosSet, ... ...
1705 \providecommand{\possym}{v}
1706 \providecommand{\posset}{Ps}
1707 \cmdmthsetext{Pos}[\posset][\possym]
1708 \cmdmthsymelm{ipos}[\possym_{I}]
1709 \cmdmthsymelm{fpos}[\possym_{F}]
1710 \cmdmthset{PPos}[\posset_{\PlrSym}]
1711 \cmdmthsymelm{ppos}[\possym_{\PlrSym}]
1712 \cmdmthset{OPos}[\posset_{\OppSym}]
1713 \cmdmthsymelm{opos}[\possym_{\OppSym}]

\SttSet, ... ...
1714 \newcommand{\sttsym}{s}
1715 \newcommand{\sttset}{St}
1716 \cmdmthsetext{Stt}[\sttset][\sttsym]
1717 \cmdmthset{IStt}[\sttset_{I}]
1718 \cmdmthsymelm{istt}[\sttsym_{I}]
1719 \cmdmthset{FStt}[\sttset_{F}]
1720 \cmdmthsymelm{fstt}[\sttsym_{F}]

\ActSet, ... ...
1721 \newcommand{\actsym}{c}
1722 \newcommand{\actset}{Ac}
1723 \cmdmthsetext{Act}[\actset][\actsym]

```

```

\DecSet, ... ...
1724 \newcommand{\decsym}{d}
1725 \newcommand{\decset}{Dc}
1726 \cmdmthsetext{Dec}[\decset][\decsym]

\movFun ...
1727 \newcommand{\movsym}{\tau}
1728 \cmdmthfun{mov}[\movsym]

\HstSet, ... ...
1729 \providecommand{\hstsym}{\rho}
1730 \providecommand{\hstset}{Hst}
1731 \cmdmthsetext{Hst}[\hstset][\hstsym]
1732 \cmdmthset{PHst}[\hstset_{\PlrSym}]
1733 \cmdmthsymelm{phst}[\hstsym_{\PlrSym}]
1734 \cmdmthset{OHst}[\hstset_{\OppSym}]
1735 \cmdmthsymelm{ohst}[\hstsym_{\OppSym}]
1736 \cmdmthfun{hst}

\PlaySet, \playFun ...
1737 \providecommand{\playsym}{\pi}
1738 \providecommand{\playset}{Play}
1739 \cmdmthsetext{Play}[\playset][\playsym]
1740 \cmdmthfun{play}

\StrSet, ... ...
1741 \providecommand{\strsym}{\sigma}
1742 \providecommand{\strset}{Str}
1743 \cmdmthsetext{Str}[\strset][\strsym]
1744 \cmdmthset{PStr}[\strset_{\PlrSym}]
1745 \cmdmthsymelm{pstr}[\strsym_{\PlrSym}]
1746 \cmdmthset{OStr}[\strset_{\OppSym}]
1747 \cmdmthsymelm{ostr}[\strsym_{\OppSym}]

\PrfSet, \prfFun ...
1748 \providecommand{\prfsym}{\xi}
1749 \providecommand{\prfset}{Prf}
1750 \cmdmthsetext{Prf}[\prfset][\prfsym]

1751 %** Strategic Logics II *****%%

\SL, ... ...
1752 % Strategy Logic
1753 \cmdtxttoparname{SL}
1754
1755 \DeclareRobustCommand{\ESL}
1756 {\ensuremath{\exists}\SL}
1757 \DeclareRobustCommand{\USL}
1758 {\ensuremath{\forall}\SL}
1759
1760 \DeclareRobustCommand{\FSL}
1761 {\{\textname{F}\}\SL}
1762
1763 \DeclareRobustCommand{\EFSL}
1764 {\ensuremath{\exists}\FSL}
1765 \DeclareRobustCommand{\UFSL}
1766 {\ensuremath{\forall}\FSL}
1767
1768 % One-Goal Strategy Logic
1769 \DeclareRobustCommandx{\OGSL}[3][1=, 2=, 3=]
1770 {\SL[#1][#2][1g\arglef{,}{#3}]}
1771
1772 \DeclareRobustCommand{\EOGSL}

```



```

1773 {\ensuremath{\exists}\OGSL}
1774 \DeclareRobustCommand{\UOGSL}
1775 {\ensuremath{\forall}\OGSL}
1776
1777 \DeclareRobustCommand{\FOGSL}
1778 {\{\textname{F}\}\OGSL}
1779
1780 \DeclareRobustCommand{\EFOGSL}
1781 {\ensuremath{\exists}\FOGSL}
1782 \DeclareRobustCommand{\UFOGSL}
1783 {\ensuremath{\forall}\FOGSL}
1784
1785 % Conjunctive-Goal Strategy Logic
1786 \DeclareRobustCommandx{\CGSL}[3][1=, 2=, 3=]
1787 {\SL[#1][#2][cg\arglef{,}\{#3}]}
1788
1789 \DeclareRobustCommand{\ECGSL}
1790 {\ensuremath{\exists}\CGSL}
1791 \DeclareRobustCommand{\UCGSL}
1792 {\ensuremath{\forall}\CGSL}
1793
1794 \DeclareRobustCommand{\FCGSL}
1795 {\{\textname{F}\}\xGSL}
1796
1797 \DeclareRobustCommand{\EFCGSL}
1798 {\ensuremath{\exists}\FCGSL}
1799 \DeclareRobustCommand{\UFCGSL}
1800 {\ensuremath{\forall}\FCGSL}
1801
1802 % Disjunctive-Goal Strategy Logic
1803 \DeclareRobustCommandx{\DGPL}[3][1=, 2=, 3=]
1804 {\SL[#1][#2][dg\arglef{,}\{#3}]}
1805
1806 \DeclareRobustCommand{\EDGPL}
1807 {\ensuremath{\exists}\DGPL}
1808 \DeclareRobustCommand{\UDGPL}
1809 {\ensuremath{\forall}\DGPL}
1810
1811 \DeclareRobustCommand{\FDGPL}
1812 {\{\textname{F}\}\xGSL}
1813
1814 \DeclareRobustCommand{\EFDGPL}
1815 {\ensuremath{\exists}\FDGPL}
1816 \DeclareRobustCommand{\UFDGPL}
1817 {\ensuremath{\forall}\FDGPL}
1818
1819 % Alternating-Goal Strategy Logic
1820 \DeclareRobustCommandx{\AGSL}[3][1=, 2=, 3=]
1821 {\SL[#1][#2][ag\arglef{,}\{#3}]}
1822
1823 \DeclareRobustCommand{\EAGSL}
1824 {\ensuremath{\exists}\AGSL}
1825 \DeclareRobustCommand{\UAGSL}
1826 {\ensuremath{\forall}\AGSL}
1827
1828 \DeclareRobustCommand{\FAGSL}
1829 {\{\textname{F}\}\xGSL}
1830
1831 \DeclareRobustCommand{\EFAGSL}
1832 {\ensuremath{\exists}\FAGSL}
1833 \DeclareRobustCommand{\UFAGSL}
1834 {\ensuremath{\forall}\FAGSL}
1835

```

```

1836 % Extended-Goal Strategy Logic
1837 \DeclareRobustCommandx{\EGSL}[3][1=, 2=, 3=]
1838   {\SL[#1][#2][eg\arglef{,}{#3}]}
1839
1840 \DeclareRobustCommand{\EEGSL}
1841   {\ensuremath{\exists}\EGSL}
1842 \DeclareRobustCommand{\UEGSL}
1843   {\ensuremath{\forall}\EGSL}
1844
1845 \DeclareRobustCommand{\FEGSL}
1846   {\{\txtname{F}\}\xGSL}
1847
1848 \DeclareRobustCommand{\EFEGSL}
1849   {\ensuremath{\exists}\FEGSL}
1850 \DeclareRobustCommand{\UFEGSL}
1851   {\ensuremath{\forall}\FEGSL}
1852
1853 % Boolean-Goal Strategy Logic
1854 \DeclareRobustCommandx{\BGSL}[3][1=, 2=, 3=]
1855   {\SL[#1][#2][bg\arglef{,}{#3}]}
1856
1857 \DeclareRobustCommand{\EBGSL}
1858   {\ensuremath{\exists}\BGSL}
1859 \DeclareRobustCommand{\UBGSL}
1860   {\ensuremath{\forall}\BGSL}
1861
1862 \DeclareRobustCommand{\FBGSL}
1863   {\{\txtname{F}\}\xGSL}
1864
1865 \DeclareRobustCommand{\EFBGSL}
1866   {\ensuremath{\exists}\FBGSL}
1867 \DeclareRobustCommand{\UFBGSL}
1868   {\ensuremath{\forall}\FBGSL}
1869
1870 % Nested-Goal Strategy Logic
1871 \DeclareRobustCommandx{\NGSL}[3][1=, 2=, 3=]
1872   {\SL[#1][#2][ng\arglef{,}{#3}]}
1873
1874 \DeclareRobustCommand{\ENGSL}
1875   {\ensuremath{\exists}\NGSL}
1876 \DeclareRobustCommand{\UNGSL}
1877   {\ensuremath{\forall}\NGSL}
1878
1879 \DeclareRobustCommand{\FNGSL}
1880   {\{\txtname{F}\}\xGSL}
1881
1882 \DeclareRobustCommand{\EFNGSL}
1883   {\ensuremath{\exists}\FNGSL}
1884 \DeclareRobustCommand{\UFNGSL}
1885   {\ensuremath{\forall}\FNGSL}
1886
1887 % Undefined-Goal Strategy Logic
1888 \DeclareRobustCommandx{\XGSL}[3][1=, 2=, 3=]
1889   {\SL[#1][#2][xg\arglef{,}{#3}]}
1890
1891 \DeclareRobustCommand{\EXGSL}
1892   {\ensuremath{\exists}\XGSL}
1893 \DeclareRobustCommand{\UXGSL}
1894   {\ensuremath{\forall}\XGSL}
1895
1896 \DeclareRobustCommand{\FXGSL}
1897   {\{\txtname{F}\}\xGSL}
1898

```

```

1899 \DeclareRobustCommand{\EFXGSL}
1900   {\ensuremath{\exists}\FXGSL}
1901 \DeclareRobustCommand{\UFXGSL}
1902   {\ensuremath{\forall}\FXGSL}

1903 %** Syntax *****%%

\BndSet, ... ...
1904 \newcommand{\bndsym}{\flat}
1905 \newcommand{\bndset}{Bn}
1906 \cmdmthsettext{Bnd}[\bndset][\bndsym]
1907 \usrmth{bnd}{-}{argfun}

\psn ...
1908 \usrmth{psn}{-}{argfun}

1909 %** Semantics *****%%

\nxtFun ...
1910 \newcommand{\nxtfun}{nxt}
1911 \cmdmthfun{nxt}[\nxtfun]

1912 \fi
1913 %*****%%
1914 %*****%%
1915 %** Macros for Automata *****%%
1916 %*****%%
1917 \ifaut@
1918 %** Finite Word Automata *****%%

\DFA, ... ...
1919 \cmdtxtoparname{DFA}\cmdtxtoparname{NFA}\cmdtxtoparname{UFA}\cmdtxtoparname{AFA}
1920
1921 \cmdtxtoparname{DWA}\cmdtxtoparname{NWA}\cmdtxtoparname{UWA}\cmdtxtoparname{AWA}
1922
1923 \cmdtxtoparname{DFW}\cmdtxtoparname{NFW}\cmdtxtoparname{UFW}\cmdtxtoparname{AFW}
1924 \cmdtxtoparname{DWW}\cmdtxtoparname{NWW}\cmdtxtoparname{UWW}\cmdtxtoparname{AWW}
1925 \cmdtxtoparname{DBW}\cmdtxtoparname{NBW}\cmdtxtoparname{UBW}\cmdtxtoparname{ABW}
1926 \cmdtxtoparname{DCW}\cmdtxtoparname{NCW}\cmdtxtoparname{UCW}\cmdtxtoparname{ACW}
1927 \cmdtxtoparname{DPW}\cmdtxtoparname{NPW}\cmdtxtoparname{UPW}\cmdtxtoparname{APW}
1928 \cmdtxtoparname{DRW}\cmdtxtoparname{NRW}\cmdtxtoparname{URW}\cmdtxtoparname{ARW}
1929 \cmdtxtoparname{DSW}\cmdtxtoparname{NSW}\cmdtxtoparname{USW}\cmdtxtoparname{ASW}
1930 \cmdtxtoparname{DMW}\cmdtxtoparname{NMW}\cmdtxtoparname{UMW}\cmdtxtoparname{AMW}

\GFG, ... ...
1931 \cmdtxtoparname{GFG}
1932
1933 \cmdtxtoparname{PD}
1934 \cmdtxtoparname{PN}
1935
1936 \cmdtxtoparname{LD}
1937 \cmdtxtoparname{LN}

1938 %** Syntax *****%%

\AutName, ... ...
1939 \newcommand{\autname}{A}
1940 \usrmthlatupp{Aut}{Name}{name}[\autname]
1941 \newcommand{\autset}{Aut}
1942 \cmdmthset{Aut}[\autset]

\WAutSet ...
1943 \newcommand{\wautset}{WAut}
1944 \cmdmthset{WAut}[\wautset]

```

```

\SttSet, ... ...
1945 \def\sttsym{q}
1946 \def\sttset{Q}
1947 \cmdmthsetext{Stt}[\sttset][\sttsym]
1948 \cmdmthset{IStt}[\sttset_{I}]
1949 \cmdmthsymelm{istt}[\sttsym_{I}]
1950 \cmdmthset{FStt}[\sttset_{F}]
1951 \cmdmthsymelm{fstt}[\sttsym_{F}]

\SymSet, ... ...
1952 \newcommand{\symsym}{\sigma}
1953 \newcommand{\symset}{\Sigma}
1954 \cmdmthsetext{Sym}[\symset][\symsym]

\trnFun ...
1955 \newcommand{\trnsym}{\delta}
1956 \cmdmthfun{trn}[\trnsym]

1957 %%** Semantics *****%%

\LangFun ...
1958 \newcommand{\langfun}{L}
1959 \cmdmthfun{Lang}[\langfun]

\WrdSet, ... ...
1960 \newcommand{\wrdsym}{w}
1961 \newcommand{\wrddset}{W}
1962 \cmdmthsetext{Wrd}[\wrddset][\wrdsym]

1963 %%** Finite Tree Automata *****%%

\DTA, ... ...
1964 \cmdtxtoparname{DTA}\cmdtxtoparname{NTA}\cmdtxtoparname{UTA}\cmdtxtoparname{ATA}
1965
1966 \cmdtxtoparname{DFT}\cmdtxtoparname{NFT}\cmdtxtoparname{UFT}\cmdtxtoparname{AFT}
1967 \cmdtxtoparname{DWT}\cmdtxtoparname{NWT}\cmdtxtoparname{UWT}\cmdtxtoparname{AWT}
1968 \cmdtxtoparname{DBT}\cmdtxtoparname{NBT}\cmdtxtoparname{UBT}\cmdtxtoparname{ABT}
1969 \cmdtxtoparname{DCT}\cmdtxtoparname{NCT}\cmdtxtoparname{UCT}\cmdtxtoparname{ACT}
1970 \cmdtxtoparname{DPT}\cmdtxtoparname{NPT}\cmdtxtoparname{UPT}\cmdtxtoparname{APT}
1971 \cmdtxtoparname{DRT}\cmdtxtoparname{NRT}\cmdtxtoparname{URT}\cmdtxtoparname{ART}
1972 \cmdtxtoparname{DST}\cmdtxtoparname{NST}\cmdtxtoparname{UST}\cmdtxtoparname{AST}
1973 \cmdtxtoparname{DMT}\cmdtxtoparname{NMT}\cmdtxtoparname{UMT}\cmdtxtoparname{AMT}

1974 %%** Syntax *****%%

\TAutSet ...
1975 \newcommand{\tautset}{TAut}
1976 \cmdmthset{TAut}[\tautset]

\DirSet, ... ...
1977 \newcommand{\dirsym}{d}
1978 \newcommand{\dirset}{\Lambda}
1979 \cmdmthsetext{Dir}[\dirset][\dirsym]

1980 %%** Semantics *****%%

\TreeSet, ... ...
1981 \newcommand{\treesym}{T}
1982 \newcommand{\treeset}{Tr}
1983 \cmdmthsetext{Tree}[\treeset][\treesym]

\wotFun ...
1984 \newcommand{\wotfun}{wot}
1985 \cmdmthfun{wot}[\wotfun]

```

```

1986 \fi
1987 %%*****%
1988 %%*****%
1989 %%** Format Tricks *****%
1990 %%*****%
1991 \iffirm@

... ...

1992 %%...

1993 \fi
1994 %%*****%
1995 %%*****%
1996 %%** Figure Tricks *****%
1997 %%*****%
1998 \iffig@

1999 \RequirePackage{tikz}
2000 \usetikzlibrary{arrows,graphs,matrix,patterns,shapes}

2001 \tikzstyle{every node} =
2002   [draw = none, fill = none, black, thin]
2003 \tikzstyle{every edge} +=
2004   [black, thick]

2005 \tikzstyle{noall} =
2006   [draw = none, fill = none]
2007 \tikzstyle{nodraw} =
2008   [draw = none, fill = white]
2009 \tikzstyle{nofill} =
2010   [draw = black, fill = none]

2011 \ifwrpfig@
2012   % Wrapfig Package
2013   \RequirePackage{wrapfig}
2014 \fi

2015 \fi
2016 %%*****%
2017 %%*****%
2018 %%** Table Tricks *****%
2019 %%*****%
2020 \iftab@

... ...

2021 %%...

2022 \fi
2023 %%*****%
2024 %%*****%
2025 %%** Algorithm Tricks *****%
2026 %%*****%
2027 \ifalg@

2028 \RequirePackage[ruled,vlined]{algorithm2e}
2029 \DontPrintSemicolon
2030 \SetInd{0.25em}{0.5em}
2031 \setlength{\algomargin}{1.25em}

\Signature ...

2032 \SetKw{Signature}{signature}

\Macro, ... ...

2033 \SetKwFor{Macro}{macro}{}{}
2034 \SetKwFor{Function}{function}{}{}
2035 \SetKwFor{Procedure}{procedure}{}{}

```

```

\Let ...
2036 \SetKwFor{Let}{let}{in}{}

\True, \False ...
2037 \SetKw{True}{true}
2038 \SetKw{False}{false}

\From, ... ...
2039 \SetKw{From}{from}
2040 \SetKw{To}{to}
2041 \SetKw{DownTo}{downto}

\GoTo, ... ...
2042 \SetKw{GoTo}{goto}
2043 \SetKw{Break}{break}
2044 \SetKw{Continue}{continue}

\MIf, ... ...
2045 \SetKwIF{MIf}{MElseIf}{MElse}{\#if}{\#then}{\#else \#if}{\#else}{\#endif}

\nlr ...
2046 \DeclareRobustCommand{\nlr}[1]
2047   {\addtocounter{AlgoLine}{1}%
2048   \nlset{\arabic{AlgoLine}-\addtocounter{AlgoLine}{#1}\arabic{AlgoLine}}}

2049 \fi
2050 %%*****%
2051 \endinput
2052 \</package>

```

## 2 Change History

|       |                                                    |      |                                                               |
|-------|----------------------------------------------------|------|---------------------------------------------------------------|
| v0.0  | General: First public release . . . . . 1          | v0.2 | General: Changes in ‘Auxiliary tricks’ . . . . . 1            |
| v0.1  | General: Algorithm tricks . . . . . 1              | v0.3 | General: Few problems solved . . . . . 1                      |
| v0.10 | General: Small refinements . . . . . 1             | v0.4 | General: Refactoring, corrections, and extensions . . . . . 1 |
| v0.11 | General: Few additions and corrections . . . . . 1 | v0.5 | General: Figure tricks . . . . . 1                            |
| v0.12 | General: New starred variants . . . . . 1          | v0.6 | General: Small refinements . . . . . 1                        |
| v0.13 | General: Further starred variants . . . . . 1      | v0.7 | General: Refinements, corrections, and extensions . . . . . 1 |
| v0.14 | General: Few additions and corrections . . . . . 1 | v0.8 | General: Few refinements and corrections . . . 1              |
| v0.15 | General: Refactoring of dtx sources . . . . . 1    | v0.9 | General: Small addition to ‘Algorithm tricks’ 1               |
| v0.16 | General: Small refinements and few additions 1     |      |                                                               |
| v0.17 | General: Few additions . . . . . 1                 |      |                                                               |

## 3 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

| Symbols                               |                                     |                                        |
|---------------------------------------|-------------------------------------|----------------------------------------|
| \! . . . . . 355, 379, 825, 914, 1695 | \@newmthparsty . . . . . 383, 384   | \@tuple . . . . . 883                  |
| \" . . . . . 783, 784                 | \@norm . . . . . 1015, 1016         | \@tuple1 . . . . . 887                 |
| \# . . . . . 2045                     | \@sequence . . . . . 859            | \@tupler . . . . . 891                 |
| \, . . . . . 910, 914, 1031,          | \@sequence1 . . . . . 863           | \@tuplex . . . . . 895                 |
| 1034, 1035, 1584, 1585,               | \@sequencer . . . . . 867           | \@tuplex1 . . . . . 899                |
| 1586, 1587, 1588, 1589,               | \@sequencex . . . . . 871           | \@tuplexr . . . . . 903                |
| 1590, 1591, 1592, 1593                | \@sequencex1 . . . . . 875          | \@vec . . . . . 850, 851               |
| \... . . . . 1992, 2021               | \@sequencexr . . . . . 879          | \^ . . . . . 785, 787                  |
| \@abs . . . . . 1011, 1012            | \@set . . . . . 908, 909            |                                        |
| \@card . . . . . 920, 921             | \@set1 . . . . . 912, 913           | <b>A</b>                               |
| \@ceil . . . . . 1023, 1024           | \@setr . . . . . 916, 917           | \abs, \_norm . . . . . 1010            |
| \@denot . . . . . 837, 838            | \@snewmtharg . . . . . 353, 356     | \AccRel, \_TrnRel . . . . . 1518       |
| \@ffloor . . . . . 1019, 1020         | \@snewmthargsty . . . . . 359, 362  | \accsym . . . . . 1518, 1519, 1520     |
| \@for . . . . . 171, 175              | \@snewmthoarg . . . . . 365, 368    | \ACls, \_ . . . . . 546                |
| \@ifstar . . . . . 353, 359, 365,     | \@snewmthoargsty . . . . . 371, 374 | \actset . . . . . 1722, 1723           |
| 371, 377, 383, 389, 395,              | \@snewmthopar . . . . . 389, 392    | \ActSet, \_ . . . . . 1721             |
| 406, 408, 410, 412, 420,              | \@snewmthoparsty . . . . . 395, 398 | \actsym . . . . . 1721, 1723           |
| 423, 426, 429, 435, 808,              | \@snewmthpar . . . . . 377, 380     | \addtocounter . . . . . 2047, 2048     |
| 812, 837, 850, 859, 863,              | \@snewmthparsty . . . . . 383, 386  | \adhoc . . . . . 743                   |
| 867, 871, 875, 879, 883,              | \@ssequence . . . . . 859           | \aElm, \_ . . . . . 643                |
| 887, 891, 895, 899, 903,              | \@ssequence1 . . . . . 863          | \AFam, \_ . . . . . 533                |
| 908, 912, 916, 920, 1011,             | \@ssequencer . . . . . 867          | \AFGMC . . . . . 1548                  |
| 1015, 1019, 1023, 1042                | \@ssequencex . . . . . 871          | \AFMC . . . . . 1544, 1553, 1555, 1557 |
| \@len . . . . . 1042, 1043            | \@ssequencex1 . . . . . 875         | \afortiori . . . . . 766               |
| \@newmtharg . . . . . 353, 354        | \@ssequencexr . . . . . 879         | \afortiori . . . . . 744               |
| \@newmthargsty . . . . . 359, 360     | \@stuple . . . . . 883              | \aFrm, \_ . . . . . 698                |
| \@newmthoarg . . . . . 365, 366       | \@stuple1 . . . . . 887             | \aFun, \_ . . . . . 617                |
| \@newmthoargsty . . . . . 371, 372    | \@stupler . . . . . 891             | \agnset . . . . . 1703, 1704           |
| \@newmthopar . . . . . 389, 390       | \@stuplex . . . . . 895             | \AgnSet, \_ . . . . . 1702             |
| \@newmthoparsty . . . . . 395, 396    | \@stuplex1 . . . . . 899            | \agnsym . . . . . 1702, 1704           |
| \@newmthpar . . . . . 377, 378        | \@stuplexr . . . . . 903            | \AGSL . . . . . 1820, 1824, 1826       |
|                                       | \@svec . . . . . 850, 853           | \AH . . . . . 1093                     |





|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1743, 1750, 1906, 1947,<br>1954, 1962, 1979, 1983                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1966, 1967, 1968, 1969,<br>1970, 1971, 1972, 1973                                                                                                                                                                                                                                                                                                                                                                                                                                     | 882, 886, 890, 894, 898,<br>902, 907, 911, 915, 919,<br>923, 926, 934, 936, 938,<br>941, 962, 964, 966, 968,<br>970, 972, 974, 976, 978,<br>980, 982, 984, 986, 988,<br>990, 992, 994, 996, 999,<br>1001, 1003, 1005, 1007,<br>1010, 1014, 1018, 1022,<br>1039, 1041, 1256, 1258,<br>1260, 1321, 1323, 1404,<br>1406, 1410, 1412, 1416,<br>1418, 1422, 1424, 1428,<br>1430, 1445, 1449, 1453,<br>1457, 1461, 1468, 1472,<br>1476, 1480, 1484, 1493,<br>1497, 1499, 1501, 1507,<br>1509, 1532, 1536, 1538,<br>1540, 1544, 1548, 1552,<br>1554, 1556, 1566, 1568,<br>1570, 1577, 1579, 1581,<br>1604, 1608, 1610, 1612,<br>1619, 1623, 1625, 1627,<br>1634, 1638, 1640, 1642,<br>1653, 1657, 1659, 1661,<br>1668, 1672, 1674, 1676,<br>1683, 1687, 1689, 1691,<br>1694, 1696, 1755, 1757,<br>1760, 1763, 1765, 1772,<br>1774, 1777, 1780, 1782,<br>1789, 1791, 1794, 1797,<br>1799, 1806, 1808, 1811,<br>1814, 1816, 1823, 1825,<br>1828, 1831, 1833, 1840,<br>1842, 1845, 1848, 1850,<br>1857, 1859, 1862, 1865,<br>1867, 1874, 1876, 1879,<br>1882, 1884, 1891, 1893,<br>1896, 1899, 1901, 2046 |
| <code>\cmdmthsig</code> ..... <a href="#">560</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <code>\cmdtxtpar</code> ..... <a href="#">335</a> , <a href="#">340</a>                                                                                                                                                                                                                                                                                                                                                                                                               | <code>\DeclareRobustCommandx</code> <a href="#">838</a> ,<br><a href="#">909</a> , <a href="#">913</a> , <a href="#">917</a> , <a href="#">921</a> , <a href="#">1012</a> ,<br><a href="#">1016</a> , <a href="#">1020</a> , <a href="#">1024</a> , <a href="#">1043</a> ,<br><a href="#">1769</a> , <a href="#">1786</a> , <a href="#">1803</a> , <a href="#">1820</a> ,<br><a href="#">1837</a> , <a href="#">1854</a> , <a href="#">1871</a> , <a href="#">1888</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <code>\cmdmthsnt</code> ..... <a href="#">686</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <code>\cmdtxtparabr</code> ..... <a href="#">483</a>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\decset</code> ..... <a href="#">1725</a> , <a href="#">1726</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <code>\cmdmthstr</code> ..... <a href="#">573</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <code>\cmdtxtparcom</code> ..... <a href="#">508</a>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\DecSet,□...</code> ..... <a href="#">1724</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <code>\cmdmthsym</code> .....<br>..... <a href="#">631</a> , <a href="#">656</a> , <a href="#">1126</a> , <a href="#">1128</a> ,<br><a href="#">1218</a> , <a href="#">1220</a> , <a href="#">1237</a> , <a href="#">1239</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <code>\cmdtxtpardef</code> ..... <a href="#">471</a>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\decsym</code> ..... <a href="#">1724</a> , <a href="#">1726</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <code>\cmdmthsymelm</code> .. <a href="#">655</a> , <a href="#">1134</a> ,<br><a href="#">1135</a> , <a href="#">1137</a> , <a href="#">1139</a> , <a href="#">1160</a> ,<br><a href="#">1162</a> , <a href="#">1172</a> , <a href="#">1174</a> , <a href="#">1517</a> ,<br><a href="#">1708</a> , <a href="#">1709</a> , <a href="#">1711</a> , <a href="#">1713</a> ,<br><a href="#">1718</a> , <a href="#">1720</a> , <a href="#">1733</a> , <a href="#">1735</a> ,<br><a href="#">1745</a> , <a href="#">1747</a> , <a href="#">1949</a> , <a href="#">1951</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <code>\cmdtxtparname</code> ..... <a href="#">496</a>                                                                                                                                                                                                                                                                                                                                                                                                                                 | <code>\dedicto</code> ..... <a href="#">748</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdmthvec</code> ..... <a href="#">726</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <code>\cmodels,□...</code> ..... <a href="#">827</a>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\def</code> ..... <a href="#">1945</a> , <a href="#">1946</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <code>\cmdtxt</code> ..... <a href="#">329</a> , <a href="#">340</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <code>\cmp</code> ..... <a href="#">938</a>                                                                                                                                                                                                                                                                                                                                                                                                                                           | <code>\Defacto</code> ..... <a href="#">770</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtabr</code> .....<br><a href="#">477</a> , <a href="#">743</a> , <a href="#">744</a> , <a href="#">745</a> , <a href="#">746</a> ,<br><a href="#">747</a> , <a href="#">748</a> , <a href="#">749</a> , <a href="#">750</a> , <a href="#">751</a> ,<br><a href="#">752</a> , <a href="#">753</a> , <a href="#">754</a> , <a href="#">755</a> , <a href="#">756</a> ,<br><a href="#">757</a> , <a href="#">758</a> , <a href="#">759</a> , <a href="#">760</a> , <a href="#">761</a> ,<br><a href="#">762</a> , <a href="#">763</a> , <a href="#">764</a> , <a href="#">766</a> , <a href="#">767</a> ,<br><a href="#">768</a> , <a href="#">769</a> , <a href="#">770</a> , <a href="#">771</a> , <a href="#">772</a> ,<br><a href="#">773</a> , <a href="#">774</a> , <a href="#">775</a> , <a href="#">776</a> , <a href="#">777</a> ,<br><a href="#">778</a> , <a href="#">779</a> , <a href="#">783</a> , <a href="#">784</a> , <a href="#">785</a> ,<br><a href="#">787</a> , <a href="#">789</a> , <a href="#">790</a> , <a href="#">791</a> , <a href="#">792</a> ,<br><a href="#">793</a> , <a href="#">794</a> , <a href="#">795</a> , <a href="#">796</a> , <a href="#">798</a> ,<br><a href="#">799</a> , <a href="#">1302</a> , <a href="#">1303</a> , <a href="#">1304</a> , <a href="#">1305</a>                                                                                                                                                                        | <code>\cnf,□\dnf,□...</code> ..... <a href="#">1302</a>                                                                                                                                                                                                                                                                                                                                                                                                                               | <code>\defacto</code> ..... <a href="#">749</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtall</code> <a href="#">339</a> , <a href="#">464</a> , <a href="#">476</a> , <a href="#">489</a> , <a href="#">501</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <code>\Cnt,□\Qnt,□\Sym</code> ..... <a href="#">1290</a>                                                                                                                                                                                                                                                                                                                                                                                                                              | <code>\defcomcls</code> ..... <a href="#">1053</a> , <a href="#">1078</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\cmdtxtarg</code> ..... <a href="#">331</a> , <a href="#">340</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <code>\coimplies,□...</code> ..... <a href="#">822</a>                                                                                                                                                                                                                                                                                                                                                                                                                                | <code>\defcomclsgrp</code> .....<br>..... <a href="#">1055</a> , <a href="#">1080</a> , <a href="#">1081</a> ,<br><a href="#">1082</a> , <a href="#">1083</a> , <a href="#">1084</a> , <a href="#">1085</a> ,<br><a href="#">1086</a> , <a href="#">1087</a> , <a href="#">1088</a> , <a href="#">1089</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <code>\cmdtxtargabr</code> ..... <a href="#">479</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <code>\Coloneqq</code> ..... <a href="#">812</a>                                                                                                                                                                                                                                                                                                                                                                                                                                      | <code>\defcomclsgrpcmd</code> .... <a href="#">1065</a> ,<br><a href="#">1066</a> , <a href="#">1067</a> , <a href="#">1068</a> , <a href="#">1069</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <code>\cmdtxtargcom</code> ..... <a href="#">504</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <code>\coloneqq</code> ..... <a href="#">812</a>                                                                                                                                                                                                                                                                                                                                                                                                                                      | <code>\defcomclsgrpred</code> <a href="#">1059</a> , <a href="#">1060</a> ,<br><a href="#">1061</a> , <a href="#">1062</a> , <a href="#">1063</a> , <a href="#">1064</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <code>\cmdtxtargdef</code> ..... <a href="#">467</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <code>\com@false</code> ..... <a href="#">56</a> , <a href="#">77</a> , <a href="#">79</a>                                                                                                                                                                                                                                                                                                                                                                                            | <code>\defcomclsgrpsem</code> .....<br>..... <a href="#">1056</a> , <a href="#">1057</a> , <a href="#">1058</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtargname</code> ..... <a href="#">492</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\com@true</code> ..... <a href="#">78</a>                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtcom</code> <a href="#">502</a> , <a href="#">1074</a> , <a href="#">1075</a> , <a href="#">1076</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\conset</code> ..... <a href="#">1336</a> , <a href="#">1337</a>                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtdef</code> ..... <a href="#">465</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <code>\consig</code> ..... <a href="#">1333</a> , <a href="#">1334</a>                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtname</code> ..... <a href="#">490</a> , <a href="#">1699</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <code>\ConSig,□...</code> ..... <a href="#">1333</a>                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtoarg</code> ..... <a href="#">333</a> , <a href="#">340</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <code>\constr</code> ..... <a href="#">1360</a> , <a href="#">1361</a>                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtoargabr</code> ..... <a href="#">481</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\ConStr,□...</code> ..... <a href="#">1360</a>                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtoargcom</code> ..... <a href="#">506</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\consym</code> ..... <a href="#">1335</a> , <a href="#">1337</a>                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtoargdef</code> ..... <a href="#">469</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\Contd</code> ..... <a href="#">798</a>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtoargname</code> ..... <a href="#">494</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <code>\contd</code> ..... <a href="#">790</a>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtopar</code> ..... <a href="#">337</a> , <a href="#">340</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <code>\coWMPL</code> ..... <a href="#">1484</a>                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtoparabr</code> ..... <a href="#">485</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\coWMSO</code> ..... <a href="#">1430</a>                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtoparcom</code> ..... <a href="#">510</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\coWMSOL</code> ..... <a href="#">1428</a>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtopardef</code> ..... <a href="#">473</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\coWMTL</code> ..... <a href="#">1461</a>                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\cmdtxtoparname</code> .....<br>..... <a href="#">498</a> , <a href="#">1108</a> , <a href="#">1111</a> ,<br><a href="#">1114</a> , <a href="#">1117</a> , <a href="#">1120</a> , <a href="#">1123</a> ,<br><a href="#">1200</a> , <a href="#">1203</a> , <a href="#">1206</a> , <a href="#">1209</a> ,<br><a href="#">1212</a> , <a href="#">1215</a> , <a href="#">1228</a> , <a href="#">1231</a> ,<br><a href="#">1234</a> , <a href="#">1253</a> , <a href="#">1317</a> , <a href="#">1318</a> ,<br><a href="#">1370</a> , <a href="#">1373</a> , <a href="#">1376</a> , <a href="#">1379</a> ,<br><a href="#">1382</a> , <a href="#">1385</a> , <a href="#">1388</a> , <a href="#">1391</a> ,<br><a href="#">1400</a> , <a href="#">1401</a> , <a href="#">1442</a> , <a href="#">1465</a> ,<br><a href="#">1490</a> , <a href="#">1529</a> , <a href="#">1563</a> , <a href="#">1574</a> ,<br><a href="#">1598</a> , <a href="#">1601</a> , <a href="#">1616</a> , <a href="#">1631</a> ,<br><a href="#">1650</a> , <a href="#">1665</a> , <a href="#">1680</a> , <a href="#">1753</a> ,<br><a href="#">1919</a> , <a href="#">1921</a> , <a href="#">1923</a> , <a href="#">1924</a> ,<br><a href="#">1925</a> , <a href="#">1926</a> , <a href="#">1927</a> , <a href="#">1928</a> ,<br><a href="#">1929</a> , <a href="#">1930</a> , <a href="#">1931</a> , <a href="#">1933</a> ,<br><a href="#">1934</a> , <a href="#">1936</a> , <a href="#">1937</a> , <a href="#">1964</a> , | <code>\coWPL</code> ..... <a href="#">1472</a>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\coWSO</code> ..... <a href="#">1412</a>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\coWSOL</code> ..... <a href="#">1410</a>                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\coWTL</code> ..... <a href="#">1449</a>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\crv@false</code> ..... <a href="#">40</a>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\crv@true</code> ..... <a href="#">41</a>                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\csdef</code> <a href="#">138</a> , <a href="#">139</a> , <a href="#">140</a> , <a href="#">141</a> , <a href="#">142</a> ,<br><a href="#">330</a> , <a href="#">332</a> , <a href="#">334</a> , <a href="#">336</a> , <a href="#">338</a> ,<br><a href="#">343</a> , <a href="#">417</a> , <a href="#">419</a> , <a href="#">422</a> , <a href="#">425</a> ,<br><a href="#">428</a> , <a href="#">434</a> , <a href="#">1054</a> , <a href="#">1070</a> , <a href="#">1072</a> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\csedef</code> ..... <a href="#">172</a> , <a href="#">176</a>                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\csname</code> ..... <a href="#">162</a> , <a href="#">163</a> ,<br><a href="#">164</a> , <a href="#">165</a> , <a href="#">166</a> , <a href="#">167</a> , <a href="#">168</a> ,<br><a href="#">173</a> , <a href="#">177</a> , <a href="#">330</a> , <a href="#">332</a> , <a href="#">334</a> ,<br><a href="#">336</a> , <a href="#">338</a> , <a href="#">343</a> , <a href="#">349</a> , <a href="#">436</a> , <a href="#">437</a>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\CTLP</code> ... <a href="#">1620</a> , <a href="#">1624</a> , <a href="#">1626</a> , <a href="#">1628</a>                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\CTLS</code> ... <a href="#">1635</a> , <a href="#">1639</a> , <a href="#">1641</a> , <a href="#">1643</a>                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\CurrentOption</code> ..... <a href="#">126</a>                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>D</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\DeclareMathAlphabet</code> ....<br>..... <a href="#">285</a> , <a href="#">286</a> , <a href="#">287</a> , <a href="#">288</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\DeclareMathOperator</code> <a href="#">944</a> , <a href="#">946</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\DeclareOption</code> .... <a href="#">12</a> , <a href="#">13</a> ,<br><a href="#">17</a> , <a href="#">21</a> , <a href="#">25</a> , <a href="#">29</a> , <a href="#">33</a> , <a href="#">37</a> ,<br><a href="#">41</a> , <a href="#">45</a> , <a href="#">49</a> , <a href="#">54</a> , <a href="#">55</a> , <a href="#">60</a> ,<br><a href="#">61</a> , <a href="#">67</a> , <a href="#">68</a> , <a href="#">72</a> , <a href="#">73</a> , <a href="#">78</a> ,<br><a href="#">79</a> , <a href="#">84</a> , <a href="#">85</a> , <a href="#">89</a> , <a href="#">90</a> , <a href="#">94</a> ,<br><a href="#">95</a> , <a href="#">100</a> , <a href="#">101</a> , <a href="#">106</a> , <a href="#">107</a> ,<br><a href="#">111</a> , <a href="#">116</a> , <a href="#">117</a> , <a href="#">122</a> , <a href="#">123</a> , <a href="#">126</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>\DeclareRobustCommand</code> <a href="#">807</a> ,<br><a href="#">811</a> , <a href="#">814</a> , <a href="#">816</a> , <a href="#">818</a> , <a href="#">820</a> ,<br><a href="#">822</a> , <a href="#">824</a> , <a href="#">827</a> , <a href="#">829</a> , <a href="#">831</a> ,<br><a href="#">833</a> , <a href="#">836</a> , <a href="#">841</a> , <a href="#">843</a> , <a href="#">845</a> ,<br><a href="#">847</a> , <a href="#">849</a> , <a href="#">851</a> , <a href="#">853</a> , <a href="#">858</a> ,<br><a href="#">862</a> , <a href="#">866</a> , <a href="#">870</a> , <a href="#">874</a> , <a href="#">878</a> ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>\defcomhrc</code> . . . . .          | <a href="#">1071</a> , <a href="#">1091</a> ,<br><a href="#">1092</a> , <a href="#">1093</a> , <a href="#">1094</a> , <a href="#">1095</a> ,<br><a href="#">1096</a> , <a href="#">1097</a> , <a href="#">1098</a> , <a href="#">1099</a>                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\EG,□</code> . . . . .            | <a href="#">1227</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <a href="#">1675</a> , <a href="#">1690</a> , <a href="#">1756</a> , <a href="#">1764</a> ,<br><a href="#">1773</a> , <a href="#">1781</a> , <a href="#">1790</a> , <a href="#">1798</a> ,<br><a href="#">1807</a> , <a href="#">1815</a> , <a href="#">1824</a> , <a href="#">1832</a> ,<br><a href="#">1841</a> , <a href="#">1849</a> , <a href="#">1858</a> , <a href="#">1866</a> ,<br><a href="#">1875</a> , <a href="#">1883</a> , <a href="#">1892</a> , <a href="#">1900</a> |
| <code>\defeq,□\seteq</code> . . . . .      | <a href="#">807</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\EGSL</code> . . . . .            | <a href="#">1837</a> , <a href="#">1841</a> , <a href="#">1843</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <code>\expandafter</code> . . . . .<br>.. <a href="#">162</a> , <a href="#">164</a> , <a href="#">167</a> , <a href="#">172</a> , <a href="#">176</a>                                                                                                                                                                                                                                                                                                                                 |
| <code>\defval</code> . . . . .             | <a href="#">149</a> ,<br><a href="#">296</a> , <a href="#">300</a> , <a href="#">304</a> , <a href="#">308</a> , <a href="#">312</a> ,<br><a href="#">343</a> , <a href="#">351</a> , <a href="#">361</a> , <a href="#">363</a> , <a href="#">373</a> ,<br><a href="#">375</a> , <a href="#">385</a> , <a href="#">387</a> , <a href="#">397</a> , <a href="#">399</a> ,<br><a href="#">436</a> , <a href="#">437</a> , <a href="#">599</a> , <a href="#">601</a> , <a href="#">924</a> ,<br><a href="#">1054</a> , <a href="#">1056</a> , <a href="#">1057</a> , <a href="#">1072</a> ,<br><a href="#">1508</a> , <a href="#">1510</a> , <a href="#">1695</a> , <a href="#">1697</a> | <code>\ELH,□\EBH</code> . . . . .       | <a href="#">1096</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\ExpSpace,□</code> . . . . . <a href="#">1089</a>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <code>\Delta</code> . . . . .              | <a href="#">1094</a> , <a href="#">1095</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <code>\else</code> ..                   | <a href="#">148</a> , <a href="#">150</a> , <a href="#">159</a> , <a href="#">257</a> , <a href="#">271</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <code>\ExpTime,□</code> . . . . . <a href="#">1088</a>                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <code>\delta</code> . . . . .              | <a href="#">1955</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\ELTL</code> . . . . .            | <a href="#">1579</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\Exs,□\All</code> . . . . . <a href="#">1507</a>                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <code>\denot</code> . . . . .              | <a href="#">836</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\em</code> . . . . .              | <a href="#">464</a> , <a href="#">476</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\dep,□\alt</code> . . . . .          | <a href="#">1300</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\EMC</code> . . . . .             | <a href="#">1538</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\der</code> . . . . .                | <a href="#">845</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\EML</code> . . . . .             | <a href="#">1499</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\Dere</code> . . . . .               | <a href="#">771</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\empchk</code> . . . . .          | <a href="#">147</a> , <a href="#">153</a> , <a href="#">155</a> ,<br><a href="#">157</a> , <a href="#">163</a> , <a href="#">314</a> , <a href="#">401</a> , <a href="#">599</a> , <a href="#">601</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\dere</code> . . . . .               | <a href="#">750</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\emptyfun</code> . . . . .        | <a href="#">941</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\DF,□\IF,□</code> . . . . .          | <a href="#">1369</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\emptyrel</code> . . . . .        | <a href="#">926</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\DFA,□</code> . . . . .              | <a href="#">1919</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\emptyseq</code> . . . . .        | <a href="#">1039</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\DGSL</code> . . . . .               | <a href="#">1803</a> , <a href="#">1807</a> , <a href="#">1809</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <code>\emptyset</code> . . . . .        | <a href="#">1695</a> , <a href="#">1697</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\Diamond</code> . . . . .            | <a href="#">1505</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\endcsname</code> . . . . .       | <a href="#">162</a> , <a href="#">163</a> ,<br><a href="#">164</a> , <a href="#">165</a> , <a href="#">166</a> , <a href="#">167</a> , <a href="#">168</a> ,<br><a href="#">173</a> , <a href="#">177</a> , <a href="#">330</a> , <a href="#">332</a> , <a href="#">334</a> ,<br><a href="#">336</a> , <a href="#">338</a> , <a href="#">343</a> , <a href="#">349</a> , <a href="#">436</a> , <a href="#">437</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\dirset</code> . . . . .             | <a href="#">1978</a> , <a href="#">1979</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <code>\endinput</code> . . . . .        | <a href="#">2051</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\DirSet,□</code> . . . . .           | <a href="#">1977</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\ENGSL</code> . . . . .           | <a href="#">1874</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\dirsym</code> . . . . .             | <a href="#">1977</a> , <a href="#">1979</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <code>\enmtls@false</code> . . . . .    | <a href="#">29</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\Divideetimpera</code> . . . . .     | <a href="#">772</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\enmtls@true</code> . . . . .     | <a href="#">28</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\divideetimpera</code> . . . . .     | <a href="#">751</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\ensuremath</code> . . . . .      | <a href="#">314</a> ,<br><a href="#">349</a> , <a href="#">945</a> , <a href="#">947</a> , <a href="#">1259</a> ,<br><a href="#">1261</a> , <a href="#">1500</a> , <a href="#">1502</a> , <a href="#">1529</a> ,<br><a href="#">1539</a> , <a href="#">1541</a> , <a href="#">1555</a> , <a href="#">1557</a> ,<br><a href="#">1569</a> , <a href="#">1571</a> , <a href="#">1580</a> , <a href="#">1582</a> ,<br><a href="#">1611</a> , <a href="#">1613</a> , <a href="#">1626</a> , <a href="#">1628</a> ,<br><a href="#">1641</a> , <a href="#">1643</a> , <a href="#">1660</a> , <a href="#">1662</a> ,<br><a href="#">1675</a> , <a href="#">1677</a> , <a href="#">1690</a> , <a href="#">1692</a> ,<br><a href="#">1756</a> , <a href="#">1758</a> , <a href="#">1764</a> , <a href="#">1766</a> ,<br><a href="#">1773</a> , <a href="#">1775</a> , <a href="#">1781</a> , <a href="#">1783</a> ,<br><a href="#">1790</a> , <a href="#">1792</a> , <a href="#">1798</a> , <a href="#">1800</a> ,<br><a href="#">1807</a> , <a href="#">1809</a> , <a href="#">1815</a> , <a href="#">1817</a> ,<br><a href="#">1824</a> , <a href="#">1826</a> , <a href="#">1832</a> , <a href="#">1834</a> ,<br><a href="#">1841</a> , <a href="#">1843</a> , <a href="#">1849</a> , <a href="#">1851</a> ,<br><a href="#">1858</a> , <a href="#">1860</a> , <a href="#">1866</a> , <a href="#">1868</a> ,<br><a href="#">1875</a> , <a href="#">1877</a> , <a href="#">1883</a> , <a href="#">1885</a> ,<br><a href="#">1892</a> , <a href="#">1894</a> , <a href="#">1900</a> , <a href="#">1902</a> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\DLH,□\DBH</code> . . . . .          | <a href="#">1094</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\entfun</code> . . . . .          | <a href="#">1182</a> , <a href="#">1183</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\DMod</code> . . . . .               | <a href="#">1508</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\entFun,□\escFun</code> . . . . . | <a href="#">1182</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\DMod,□\BMod</code> . . . . .        | <a href="#">1505</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\enumeration,□</code> . . . . .   | <a href="#">856</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\do</code> . . . . .                 | <a href="#">171</a> , <a href="#">175</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <code>\EOGSL</code> . . . . .           | <a href="#">1772</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\dom,□\cod,□</code> . . . . .        | <a href="#">929</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\EPTL</code> . . . . .            | <a href="#">1568</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\DontPrintSemicolon</code> . . . . . | <a href="#">2029</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\equiv</code> . . . . .           | <a href="#">832</a> , <a href="#">834</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\DTA,□</code> . . . . .              | <a href="#">1964</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <code>\ergo</code> . . . . .            | <a href="#">753</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>\dual,□\adj,□</code> . . . . .       | <a href="#">841</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <code>\Errata</code> . . . . .          | <a href="#">774</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\errata</code> . . . . .          | <a href="#">754</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\Erratum</code> . . . . .         | <a href="#">775</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\erratum</code> . . . . .         | <a href="#">755</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\escfun</code> . . . . .          | <a href="#">1184</a> , <a href="#">1185</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\ESL</code> . . . . .             | <a href="#">1755</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\etal</code> . . . . .            | <a href="#">756</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\etc</code> . . . . .             | <a href="#">757</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\evn,□\odd</code> . . . . .       | <a href="#">1028</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\evnsym</code> . . . . .          | <a href="#">1217</a> , <a href="#">1218</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\EvnSym,□\OddSym</code> . . . . . | <a href="#">1217</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\ExecuteOptions</code> . . . . .  | <a href="#">128</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\EXGSL</code> . . . . .           | <a href="#">1891</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\exists</code> . . . . .          | <a href="#">1259</a> ,<br><a href="#">1281</a> , <a href="#">1293</a> , <a href="#">1294</a> , <a href="#">1500</a> ,<br><a href="#">1539</a> , <a href="#">1555</a> , <a href="#">1569</a> , <a href="#">1580</a> ,<br><a href="#">1611</a> , <a href="#">1626</a> , <a href="#">1641</a> , <a href="#">1660</a> ,<br><a href="#">1675</a> , <a href="#">1690</a> , <a href="#">1756</a> , <a href="#">1764</a> ,<br><a href="#">1773</a> , <a href="#">1781</a> , <a href="#">1790</a> , <a href="#">1798</a> ,<br><a href="#">1807</a> , <a href="#">1815</a> , <a href="#">1817</a> ,<br><a href="#">1845</a> , <a href="#">1849</a> , <a href="#">1851</a> ,<br><a href="#">1267</a> , <a href="#">1268</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FAGSL</code> . . . . .           | <a href="#">1828</a> , <a href="#">1832</a> , <a href="#">1834</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FBGSL</code> . . . . .           | <a href="#">1862</a> , <a href="#">1866</a> , <a href="#">1868</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FCGSL</code> . . . . .           | <a href="#">1794</a> , <a href="#">1798</a> , <a href="#">1800</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FDGSL</code> . . . . .           | <a href="#">1811</a> , <a href="#">1815</a> , <a href="#">1817</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FEGSL</code> . . . . .           | <a href="#">1845</a> , <a href="#">1849</a> , <a href="#">1851</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\ffsym</code> . . . . .           | <a href="#">1267</a> , <a href="#">1268</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\fi</code> . . . . .              | <a href="#">148</a> , <a href="#">150</a> , <a href="#">159</a> , <a href="#">215</a> , <a href="#">220</a> ,<br><a href="#">225</a> , <a href="#">230</a> , <a href="#">245</a> , <a href="#">250</a> , <a href="#">265</a> ,<br><a href="#">273</a> , <a href="#">274</a> , <a href="#">278</a> , <a href="#">280</a> , <a href="#">512</a> ,<br><a href="#">736</a> , <a href="#">800</a> , <a href="#">1047</a> , <a href="#">1100</a> ,<br><a href="#">1245</a> , <a href="#">1912</a> , <a href="#">1986</a> , <a href="#">1993</a> ,<br><a href="#">2014</a> , <a href="#">2015</a> , <a href="#">2022</a> , <a href="#">2049</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\fig@false</code> . . . . .       | <a href="#">105</a> , <a href="#">107</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\fig@true</code> . . . . .        | <a href="#">106</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\fix,□\ifp,□</code> . . . . .     | <a href="#">950</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\flat</code> . . . . .            | <a href="#">1904</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\floor,□\ceil</code> . . . . .    | <a href="#">1018</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FNGSL</code> . . . . .           | <a href="#">1879</a> , <a href="#">1883</a> , <a href="#">1885</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\fnttls@false</code> . . . . .    | <a href="#">37</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\fnttls@true</code> . . . . .     | <a href="#">36</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FO</code> . . . . .              | <a href="#">1324</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FOGSL</code> . . . . .           | <a href="#">1777</a> , <a href="#">1781</a> , <a href="#">1783</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FOL,□</code> . . . . .           | <a href="#">1316</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\footnotesize</code> . . . . .    | <a href="#">947</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\forall</code> . . . . .          | <a href="#">1261</a> ,<br><a href="#">1283</a> , <a href="#">1293</a> , <a href="#">1294</a> , <a href="#">1502</a> ,<br><a href="#">1541</a> , <a href="#">1557</a> , <a href="#">1571</a> , <a href="#">1582</a> ,<br><a href="#">1613</a> , <a href="#">1628</a> , <a href="#">1643</a> , <a href="#">1662</a> ,<br><a href="#">1677</a> , <a href="#">1692</a> , <a href="#">1758</a> , <a href="#">1766</a> ,<br><a href="#">1775</a> , <a href="#">1783</a> , <a href="#">1792</a> , <a href="#">1800</a> ,<br><a href="#">1809</a> , <a href="#">1817</a> , <a href="#">1826</a> , <a href="#">1834</a> ,<br><a href="#">1843</a> , <a href="#">1851</a> , <a href="#">1860</a> , <a href="#">1868</a> ,<br><a href="#">1877</a> , <a href="#">1885</a> , <a href="#">1894</a> , <a href="#">1902</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FPT</code> . . . . .             | <a href="#">1078</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\free,□\bound</code> . . . . .    | <a href="#">1298</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\frm@false</code> . . . . .       | <a href="#">99</a> , <a href="#">101</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\frm@true</code> . . . . .        | <a href="#">100</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\From,□</code> . . . . .          | <a href="#">2039</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FSL</code> . . . . .             | <a href="#">1760</a> , <a href="#">1764</a> , <a href="#">1766</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\fst,□\lst</code> . . . . .       | <a href="#">1045</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\funset</code> . . . . .          | <a href="#">1342</a> , <a href="#">1343</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\funsig</code> . . . . .          | <a href="#">1339</a> , <a href="#">1340</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FunSig,□</code> . . . . .        | <a href="#">1339</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\funstr</code> . . . . .          | <a href="#">1362</a> , <a href="#">1363</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FunStr,□</code> . . . . .        | <a href="#">1362</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\funsym</code> . . . . .          | <a href="#">1341</a> , <a href="#">1343</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\fvarset</code> . . . . .         | <a href="#">1434</a> , <a href="#">1435</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FVarSet,□</code> . . . . .       | <a href="#">1433</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\fvarsym</code> . . . . .         | <a href="#">1433</a> , <a href="#">1435</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <code>\FXGSL</code> . . . . .           | <a href="#">1896</a> , <a href="#">1900</a> , <a href="#">1902</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|---------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>G</b>                                                            |  | <b>K</b>                                                                                                                                                   |  | <b>\lVert</b> ..... 1017                                                                                                                                                                                                                                                                                                                                    |  |  |
| <b>\gam@false</b> ..... 56, 62, 83, 85                              |  | <b>\kern</b> ..... 948                                                                                                                                     |  | <b>\lvert</b> ..... 922, 1013, 1044                                                                                                                                                                                                                                                                                                                         |  |  |
| <b>\gam@true</b> ..... 84                                           |  | <b>\krpstr</b> ..... 1512, 1513                                                                                                                            |  | <b>M</b>                                                                                                                                                                                                                                                                                                                                                    |  |  |
| <b>\Game</b> ..... 1144                                             |  | <b>\KrpStr,□...</b> ..... 1512                                                                                                                             |  | <b>\Macro,□...</b> ..... 2033                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>\gamename</b> ..... 1144, 1145                                   |  | <b>L</b>                                                                                                                                                   |  | <b>\mathaccent</b> ..... 852                                                                                                                                                                                                                                                                                                                                |  |  |
| <b>\GameName,□...</b> ..... 1144                                    |  | <b>\laallsym</b> ..... 1395, 1396                                                                                                                          |  | <b>\mathbbo</b> ..... 285                                                                                                                                                                                                                                                                                                                                   |  |  |
| <b>\GFG,□...</b> ..... 1931                                         |  | <b>\labFun</b> ..... 1521                                                                                                                                  |  | <b>\mathbin</b> ..... 673                                                                                                                                                                                                                                                                                                                                   |  |  |
| <b>\GoTo,□...</b> ..... 2042                                        |  | <b>\labsym</b> ..... 1521, 1522                                                                                                                            |  | <b>\mathcal</b> ..... 519                                                                                                                                                                                                                                                                                                                                   |  |  |
| <b>H</b>                                                            |  | <b>\lallsym</b> ..... 1283, 1284                                                                                                                           |  | <b>\matheus</b> ..... 286, 545                                                                                                                                                                                                                                                                                                                              |  |  |
| <b>\H</b> ..... 1591                                                |  | <b>\Lambda</b> ..... 1978                                                                                                                                  |  | <b>\mathfrak</b> ..... 571                                                                                                                                                                                                                                                                                                                                  |  |  |
| <b>\hstset</b> ..... 1157, 1158, 1159, 1161, 1730, 1731, 1732, 1734 |  | <b>\lambda</b> ..... 1521                                                                                                                                  |  | <b>\mathit</b> ..... 603, 697, 724                                                                                                                                                                                                                                                                                                                          |  |  |
| <b>\HstSet,□...</b> ..... 1156, 1729                                |  | <b>\land</b> ..... 1273                                                                                                                                    |  | <b>\mathnormal</b> ..... 642                                                                                                                                                                                                                                                                                                                                |  |  |
| <b>\hstsym</b> ..... 1156, 1158, 1160, 1162, 1729, 1731, 1733, 1735 |  | <b>\LangFun</b> ..... 1958                                                                                                                                 |  | <b>\mathop</b> ..... 672                                                                                                                                                                                                                                                                                                                                    |  |  |
| <b>\hypersetup</b> ..... 235                                        |  | <b>\langfun</b> ..... 1958, 1959                                                                                                                           |  | <b>\mathpzc</b> ..... 287, 558                                                                                                                                                                                                                                                                                                                              |  |  |
| <b>\hypref@false</b> ..... 33                                       |  | <b>\langle</b> ..... 884, 885, 888, 889, 896, 897, 900, 901, 1508, 1695                                                                                    |  | <b>\mathrel</b> ..... 679, 947                                                                                                                                                                                                                                                                                                                              |  |  |
| <b>\hypref@true</b> ..... 32                                        |  | <b>\LaTeX</b> ..... 671, 678                                                                                                                               |  | <b>\mathring</b> ..... 844                                                                                                                                                                                                                                                                                                                                  |  |  |
| <b>I</b>                                                            |  | <b>\lbrace</b> ..... 910, 914                                                                                                                              |  | <b>\mathrm</b> ..... 584                                                                                                                                                                                                                                                                                                                                    |  |  |
| <b>\ie</b> ..... 758                                                |  | <b>\lceil</b> ..... 1025                                                                                                                                   |  | <b>\mathscr</b> ..... 288, 532                                                                                                                                                                                                                                                                                                                              |  |  |
| <b>\if</b> ..... 148, 150, 159                                      |  | <b>\lcoisym</b> ..... 1279, 1280                                                                                                                           |  | <b>\mathsf</b> ..... 616, 684, 711                                                                                                                                                                                                                                                                                                                          |  |  |
| <b>\if@twocolumn</b> ..... 132, 269                                 |  | <b>\LCon,□\LDis</b> ..... 1273                                                                                                                             |  | <b>\mathtt</b> ..... 629                                                                                                                                                                                                                                                                                                                                    |  |  |
| <b>\ifalg@</b> ..... 121, 2027                                      |  | <b>\lconsym</b> ..... 1273, 1274                                                                                                                           |  | <b>\maxsym</b> ..... 1236, 1237                                                                                                                                                                                                                                                                                                                             |  |  |
| <b>\ifamsdef@</b> ..... 16, 209                                     |  | <b>\ldissym</b> ..... 1275, 1276                                                                                                                           |  | <b>\MaxSym,□\MinSym</b> ..... 1236                                                                                                                                                                                                                                                                                                                          |  |  |
| <b>\ifamsthm@</b> ..... 20, 217                                     |  | <b>\LEExs,□\LAA11</b> ..... 1393                                                                                                                           |  | <b>\MC,□\GMC,□...</b> ..... 1528                                                                                                                                                                                                                                                                                                                            |  |  |
| <b>\ifaut@</b> ..... 93, 1917                                       |  | <b>\leexssym</b> ..... 1393, 1394                                                                                                                          |  | <b>\mdseries</b> ..... 327, 489, 501                                                                                                                                                                                                                                                                                                                        |  |  |
| <b>\ifaux@</b> ..... 11, 207                                        |  | <b>\left</b> ..... 355, 379, 837, 860, 864, 868, 872, 876, 880, 884, 888, 892, 896, 900, 904, 908, 912, 916, 920, 1011, 1015, 1019, 1023, 1042, 1510, 1697 |  | <b>\MFO</b> ..... 1323                                                                                                                                                                                                                                                                                                                                      |  |  |
| <b>\ifchgbar@</b> ..... 44, 262                                     |  | <b>\Leftarrow</b> ..... 819, 821                                                                                                                           |  | <b>\MFOL</b> ..... 1321                                                                                                                                                                                                                                                                                                                                     |  |  |
| <b>\ifcom@</b> ..... 77, 1052                                       |  | <b>\Leftrightarrow</b> ..... 823, 825                                                                                                                      |  | <b>\middle</b> ..... 908                                                                                                                                                                                                                                                                                                                                    |  |  |
| <b>\ifcrv@</b> ..... 40, 252                                        |  | <b>\leftrightharrow</b> ..... 1279                                                                                                                         |  | <b>\MIf,□...</b> ..... 2045                                                                                                                                                                                                                                                                                                                                 |  |  |
| <b>\ifcsdef</b> ..... 132                                           |  | <b>\len</b> ..... 1041                                                                                                                                     |  | <b>\min,□\max,□...</b> ..... 1032                                                                                                                                                                                                                                                                                                                           |  |  |
| <b>\ifdef</b> ..... 285, 286, 287, 288                              |  | <b>\let</b> ..... 2036                                                                                                                                     |  | <b>\minsym</b> ..... 1238, 1239                                                                                                                                                                                                                                                                                                                             |  |  |
| <b>\ifenmtls@</b> ..... 28, 227                                     |  | <b>\let</b> ..... 1590, 1591, 1592                                                                                                                         |  | <b>\ML,□\GML,□...</b> ..... 1489                                                                                                                                                                                                                                                                                                                            |  |  |
| <b>\iff</b> ..... 791                                               |  | <b>\LExs,□\LAll</b> ..... 1281                                                                                                                             |  | <b>\models</b> ..... 828, 830                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>\iffig@</b> ..... 105, 1998                                      |  | <b>\lexssym</b> ..... 1281, 1282                                                                                                                           |  | <b>\movFun</b> ..... 1727                                                                                                                                                                                                                                                                                                                                   |  |  |
| <b>\iffnttls@</b> ..... 36, 247                                     |  | <b>\lfloor</b> ..... 1021                                                                                                                                  |  | <b>\MovRel</b> ..... 1142                                                                                                                                                                                                                                                                                                                                   |  |  |
| <b>\iffrm@</b> ..... 99, 1991                                       |  | <b>\liftFun</b> ..... 1194                                                                                                                                 |  | <b>\movrel</b> ..... 1142, 1143                                                                                                                                                                                                                                                                                                                             |  |  |
| <b>\ifgam@</b> ..... 83, 1105                                       |  | <b>\liftfun</b> ..... 1194, 1195                                                                                                                           |  | <b>\movsym</b> ..... 1727, 1728                                                                                                                                                                                                                                                                                                                             |  |  |
| <b>\ifhypref@</b> ..... 32, 232                                     |  | <b>\LImp,□\LCoi</b> ..... 1277                                                                                                                             |  | <b>\MPL</b> ..... 1476, 1481, 1485                                                                                                                                                                                                                                                                                                                          |  |  |
| <b>\iflignum@</b> ..... 48, 267                                     |  | <b>\limpsym</b> ..... 1277, 1278                                                                                                                           |  | <b>\MSO</b> ..... 1418, 1425, 1431                                                                                                                                                                                                                                                                                                                          |  |  |
| <b>\iflog@</b> ..... 88, 1250                                       |  | <b>\linenumbers</b> ..... 270, 272                                                                                                                         |  | <b>\MSOL</b> ..... 1416, 1423, 1429                                                                                                                                                                                                                                                                                                                         |  |  |
| <b>\ifmth@</b> ..... 71, 805                                        |  | <b>\linnum@false</b> ..... 48                                                                                                                              |  | <b>\mth</b> ..... 403, 839, 842, 844, 846, 848, 852, 854, 856, 857, 860, 861, 864, 865, 868, 869, 872, 873, 876, 877, 880, 881, 884, 885, 888, 889, 892, 893, 896, 897, 900, 901, 904, 905, 910, 914, 918, 922, 924, 927, 942, 1000, 1002, 1004, 1006, 1008, 1013, 1017, 1021, 1025, 1040, 1044, 1094, 1095, 1096, 1097, 1098, 1099, 1508, 1510, 1695, 1697 |  |  |
| <b>\ifmthgen@</b> ..... 59, 517                                     |  | <b>\linnum@true</b> ..... 49                                                                                                                               |  | <b>\mth@false</b> ..... 62, 71, 73                                                                                                                                                                                                                                                                                                                          |  |  |
| <b>\iftab@</b> ..... 115, 2020                                      |  | <b>\llbracket</b> ..... 839                                                                                                                                |  | <b>\mth@true</b> ..... 72                                                                                                                                                                                                                                                                                                                                   |  |  |
| <b>\ifthmtls@</b> ..... 24, 222                                     |  | <b>\llcorner</b> ..... 947                                                                                                                                 |  | <b>\mtharg</b> ..... 405                                                                                                                                                                                                                                                                                                                                    |  |  |
| <b>\iftxt@</b> ..... 66, 741                                        |  | <b>\LNeg,□\LNot</b> ..... 1269                                                                                                                             |  | <b>\mthargfun</b> ..... 935                                                                                                                                                                                                                                                                                                                                 |  |  |
| <b>\iftxtgen@</b> ..... 53, 462                                     |  | <b>\lnegsym</b> ..... 1269, 1270                                                                                                                           |  | <b>\mthcls,□...</b> ..... 544                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>\ifwrpfig@</b> ..... 110, 2011                                   |  | <b>\lnotsym</b> ..... 1271, 1272                                                                                                                           |  | <b>\mthelm,□...</b> ..... 641                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>\iht</b> ..... 792                                               |  | <b>\log@false</b> ..... 56, 62, 88, 90                                                                                                                     |  | <b>\mthfam,□...</b> ..... 531                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>\implied,□...</b> ..... 818                                      |  | <b>\log@true</b> ..... 89                                                                                                                                  |  | <b>\mthfrm,□...</b> ..... 696                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>\implies,□...</b> ..... 814                                      |  | <b>\logsig</b> ..... 1263, 1264                                                                                                                            |  | <b>\mthfun,□...</b> ..... 615                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>\inf,□\sup</b> ..... 1036                                        |  | <b>\LogSig,□...</b> ..... 1263                                                                                                                             |  | <b>\mthgen@false</b> ..... 59, 62                                                                                                                                                                                                                                                                                                                           |  |  |
| <b>\infty</b> 969, 973, 975, 977, 981, 983, 985, 989, 991, 993, 997 |  | <b>\LogSpace,□...</b> ..... 1083                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |
| <b>\interdisplaylinepenalty</b> 214                                 |  | <b>\logstr</b> ..... 1307, 1308                                                                                                                            |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |
| <b>\intfun</b> ..... 1186, 1187                                     |  | <b>\LogStr,□...</b> ..... 1307                                                                                                                             |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |
| <b>\intFun,□\outFun</b> ..... 1186                                  |  | <b>\LogTime,□...</b> ..... 1082                                                                                                                            |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |
| <b>\itr</b> 171, 172, 173, 175, 176, 177                            |  | <b>\lor</b> ..... 1275                                                                                                                                     |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |
|                                                                     |  | <b>\lowercase</b> ..... 599, 601                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |

|                                                         |                                                         |                                                               |
|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------|
| <code>\mthgen@true</code> . 60, 72, 84, 89, 94          | 551, 553, 555, 560, 562,                                | <code>\OGSL</code> ... 1769, 1773, 1775, 1778                 |
| <code>\mthlbop</code> 809, 810, 812, 937, 939           | 564, 566, 568, 573, 575,                                | <code>\Omega</code> ..... 956                                 |
| <code>\mthlrel</code> ..... 678, 815, 817, 819, 821,    | 577, 579, 581, 586, 588,                                | <code>\omega</code> ..... 955                                 |
| 823, 825, 828, 830, 832, 834                            | 590, 592, 594, 596, 605,                                | <code>\Omicron</code> ..... 960                               |
| <code>\mthluop,<sub>□</sub>...</code> ..... 671         | 607, 609, 611, 613, 618,                                | <code>\omicron</code> ..... 138, 959                          |
| <code>\mthmat,<sub>□</sub>...</code> ..... 710          | 620, 622, 624, 626, 631,                                | <code>\oplus</code> ..... 1236                                |
| <code>\mthname,<sub>□</sub>...</code> ..... 518         | 633, 635, 637, 639, 644,                                | <code>\OppSym</code> ..... 1138, 1139, 1161, 1162,            |
| <code>\mthoarg</code> ..... 407                         | 646, 648, 650, 652, 655,                                | 1173, 1174, 1712, 1713,                                       |
| <code>\mthopar</code> ..... 411                         | 658, 661, 664, 667, 674,                                | 1734, 1735, 1746, 1747                                        |
| <code>\mthpar</code> ..... 409                          | 676, 680, 686, 688, 690,                                | <code>\oppsym</code> ..... 1127, 1128                         |
| <code>\mthrel,<sub>□</sub>...</code> ..... 602          | 692, 694, 699, 701, 703,                                | <code>\Opr</code> ..... 1504                                  |
| <code>\mthset</code> ..... 963,                         | 705, 707, 713, 715, 717,                                | <code>\outfun</code> ..... 1188, 1189                         |
| 965, 967, 971, 979, 987, 995                            | 719, 721, 726, 728, 730,                                | <code>\overline</code> ..... 842, 854                         |
| <code>\mthset,<sub>□</sub>...</code> ..... 583          | 732, 734, 1053, 1055,                                   |                                                               |
| <code>\mthsig,<sub>□</sub>...</code> ..... 557          | 1058, 1064, 1069, 1071                                  |                                                               |
| <code>\mthsnt,<sub>□</sub>...</code> ..... 683          | <code>\newif</code> 11, 16, 20, 24, 28, 32,             | <b>P</b>                                                      |
| <code>\mthstr,<sub>□</sub>...</code> ..... 570          | 36, 40, 44, 48, 53, 59,                                 | <code>\P</code> ..... 1590                                    |
| <code>\mthsty</code> ..... 404, 406, 408, 410, 412, 413 | 66, 71, 77, 83, 88, 93,                                 | <code>\PackageWarning</code> ..... 126                        |
| <code>\mthstycls</code> ..... 545                       | 99, 105, 110, 115, 121, 132                             | <code>\PDL,<sub>□</sub>\CTL,<sub>□</sub>...</code> ..... 1596 |
| <code>\mthstyelm</code> ..... 642                       | <code>\newmth</code> ..... 348, 351, 355, 357, 379, 381 | <code>\Percontra</code> ..... 777                             |
| <code>\mthstyfam</code> ..... 532                       | <code>\newmtharg</code> 352, 361, 363, 367, 369         | <code>\percontra</code> ..... 760                             |
| <code>\mthstyfrm</code> ..... 697                       | <code>\newmthargsty</code> .. 358, 406, 420             | <code>\PH</code> ..... 1091                                   |
| <code>\mthstyfun</code> ..... 616                       | <code>\newmthoarg</code> .... 364, 373, 375             | <code>\Pi</code> ..... 1098, 1099, 1395                       |
| <code>\mthstybop</code> ..... 673                       | <code>\newmthoargsty</code> . 370, 408, 423             | <code>\pi</code> ..... 1152, 1164, 1523, 1737                 |
| <code>\mthstylrel</code> ..... 679                      | <code>\newmthopar</code> .... 388, 397, 399             | <code>\playset</code> 1165, 1166, 1738, 1739                  |
| <code>\mthstyluop</code> ..... 672                      | <code>\newmthoparsty</code> . 394, 412, 429             | <code>\PlaySet,<sub>□</sub>\playFun</code> . 1164, 1737       |
| <code>\mthstymat</code> ..... 711                       | <code>\newmthpar</code> 376, 385, 387, 391, 393         | <code>\playsym</code> 1164, 1166, 1737, 1739                  |
| <code>\mthstyname</code> ..... 519                      | <code>\newmthparsty</code> .. 382, 410, 426             | <code>\PlrFun</code> ..... 1140                               |
| <code>\mthstyrel</code> ..... 603                       | <code>\newmthsty</code> ..... 350, 404, 417             | <code>\plrfun</code> ..... 1140, 1141                         |
| <code>\mthstyset</code> ..... 584                       | <code>\newtxt</code> .... 293, 296, 298, 306            | <code>\PlrSym</code> ..... 1136, 1137, 1159, 1160,            |
| <code>\mthstysig</code> ..... 558                       | <code>\newtxtarg</code> .... 297, 300, 302              | 1171, 1172, 1710, 1711,                                       |
| <code>\mthstysnt</code> ..... 684                       | <code>\newtxtargsty</code> .. 299, 319, 332             | 1732, 1733, 1744, 1745                                        |
| <code>\mthstysty</code> ..... 571                       | <code>\newtxtoarg</code> ..... 301, 304                 | <code>\plrsym</code> ..... 1125, 1126                         |
| <code>\mthstysym</code> ..... 629                       | <code>\newtxtoargsty</code> . 303, 321, 334             | <code>\PlrSym,<sub>□</sub>\OppSym</code> ..... 1125           |
| <code>\mthstyvec</code> ..... 724                       | <code>\newtxtopar</code> ..... 309, 312                 | <code>\pm</code> ..... 973, 981, 989                          |
| <code>\mthsubsup</code> ..... 349, 400                  | <code>\newtxtoparsty</code> . 311, 325, 338             | <code>\posset</code> ..... 1132, 1133, 1136, 1138,            |
| <code>\mthsym,<sub>□</sub>...</code> ..... 628          | <code>\newtxtpar</code> .... 305, 308, 310              | 1706, 1707, 1710, 1712                                        |
| <code>\mthvec,<sub>□</sub>...</code> ..... 723          | <code>\newtxtparsty</code> .. 307, 323, 336             | <code>\PosSet,<sub>□</sub>...</code> ..... 1131, 1705         |
| <code>\MTL</code> ..... 1453, 1458, 1462                | <code>\newtxtsty</code> ..... 295, 317, 330             | <code>\possym</code> ..... 1131, 1133, 1134, 1135,            |
| <code>\mu</code> ..... 1529                             | <code>\NGSL</code> ..... 1871, 1875, 1877               | 1137, 1139, 1705, 1707,                                       |
| <code>\Mutatismutandis</code> ..... 776                 | <code>\nlr</code> ..... 2046                            | 1708, 1709, 1711, 1713                                        |
| <code>\mutatismutandis</code> ..... 759                 | <code>\nlset</code> ..... 2048                          | <code>\pow</code> ..... 923                                   |
|                                                         | <code>\noexpand</code> ..... 173, 177                   | <code>\prefun</code> ..... 1178, 1179                         |
| <b>N</b>                                                | <code>\normalfont</code> .... 464, 489, 501             | <code>\preFun,<sub>□</sub>\sucFun</code> ..... 1178           |
| <code>\naif</code> ..... 783                            | <code>\not</code> ... 817, 821, 825, 830, 834           | <code>\prfset</code> . 1176, 1177, 1749, 1750                 |
| <code>\naive</code> ..... 784                           | <code>\notcequiv</code> ..... 833                       | <code>\PrfSet,<sub>□</sub>\prfFun</code> .. 1175, 1748        |
| <code>\neg</code> ..... 1269                            | <code>\notcmodels</code> ..... 829                      | <code>\prfsym</code> . 1175, 1177, 1748, 1750                 |
| <code>\newcommandx</code> ..... 293,                    | <code>\notcoimplies</code> ..... 824                    | <code>\PrimaFacie</code> ..... 778                            |
| 295, 297, 299, 301, 303,                                | <code>\notimplied</code> ..... 820                      | <code>\primaFacie</code> ..... 761                            |
| 305, 307, 309, 311, 342,                                | <code>\notimplies</code> ..... 816                      | <code>\prj</code> ..... 934                                   |
| 348, 350, 354, 356, 360,                                | <code>\num,<sub>□</sub>...</code> ..... 999             | <code>\ProcessOptions</code> ..... 130                        |
| 362, 366, 368, 372, 374,                                | <code>\numcc</code> ..... 1001                          | <code>\providecommand</code> ..... 1523, 1524, 1705, 1706,    |
| 378, 380, 384, 386, 390,                                | <code>\numco</code> ..... 1003                          | 1729, 1730, 1737, 1738,                                       |
| 392, 396, 398, 433, 440,                                | <code>\numoc</code> ..... 1005                          | 1741, 1742, 1748, 1749                                        |
| 442, 444, 446, 448, 450,                                | <code>\numoo</code> ..... 1007                          | <code>\prtset</code> ..... 1222, 1223                         |
| 452, 454, 456, 465, 467,                                | <code>\nxtFun</code> ..... 1910                         | <code>\PrtSet,<sub>□</sub>\prtFun</code> ..... 1221           |
| 469, 471, 473, 477, 479,                                | <code>\nxtfun</code> ..... 1910, 1911                   | <code>\prtsym</code> ..... 1221, 1223                         |
| 481, 483, 485, 490, 492,                                |                                                         | <code>\psn</code> ..... 1908                                  |
| 494, 496, 498, 502, 504,                                | <b>O</b>                                                | <code>\PSpace,<sub>□</sub>...</code> ..... 1085               |
| 506, 508, 510, 521, 523,                                | <code>\obsset</code> ..... 1148, 1149                   | <code>\pthset</code> . 1153, 1154, 1524, 1525                 |
| 525, 527, 529, 534, 536,                                | <code>\ObsSet,<sub>□</sub>\obsFun</code> ..... 1148     |                                                               |
| 538, 540, 542, 547, 549,                                | <code>\oddsym</code> ..... 1219, 1220                   |                                                               |
|                                                         | <code>\odot</code> ..... 1292                           |                                                               |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |                         |                                                                                                                                                                                          |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| \PthSet, \pthFun . . . . . | <a href="#">1152</a> , <a href="#">1523</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | S                            | \SO . . . . .           | <a href="#">1407</a> , <a href="#">1413</a> , <a href="#">1419</a>                                                                                                                       |
| \pthsym . . . . .          | <a href="#">1152</a> , <a href="#">1154</a> , <a href="#">1523</a> , <a href="#">1525</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \S . . . . .                 | \SOL, \ . . . . .       | <a href="#">1399</a>                                                                                                                                                                     |
| \PTime, \ . . . . .        | <a href="#">1084</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \SATG, \ . . . . .           | \solFun . . . . .       | <a href="#">1196</a>                                                                                                                                                                     |
| \PTL, \LTL, \ . . . . .    | <a href="#">1562</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \SaveDoubleAcute . . . . .   | \solfun . . . . .       | <a href="#">1196</a> , <a href="#">1197</a>                                                                                                                                              |
| \pto, \pmapsto . . . . .   | <a href="#">944</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \SavePilcrow . . . . .       | \Space, \ . . . . .     | <a href="#">1081</a>                                                                                                                                                                     |
| Q                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \SaveSectionSymbol . . . . . | \stackrel . . . . .     | <a href="#">809</a>                                                                                                                                                                      |
| \QAE, \QEA . . . . .       | <a href="#">1293</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \scshape . . . . .           | \strset . . . . .       |                                                                                                                                                                                          |
| \QAFMC . . . . .           | <a href="#">1552</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqofcmd . . . . .          |                         | <a href="#">1169</a> , <a href="#">1170</a> , <a href="#">1171</a> , <a href="#">1173</a> ,<br><a href="#">1742</a> , <a href="#">1743</a> , <a href="#">1744</a> , <a href="#">1746</a> |
| \QATL . . . . .            | <a href="#">1657</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqofgrklet . . . . .       | \StrSet, \ . . . . .    | <a href="#">1168</a> , <a href="#">1741</a>                                                                                                                                              |
| \QATLP . . . . .           | <a href="#">1672</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqofgrklow . . . . .       | \strsym . . . . .       |                                                                                                                                                                                          |
| \QATLS . . . . .           | <a href="#">1687</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                         | <a href="#">1168</a> , <a href="#">1170</a> , <a href="#">1172</a> , <a href="#">1174</a> ,<br><a href="#">1741</a> , <a href="#">1743</a> , <a href="#">1745</a> , <a href="#">1747</a> |
| \QCTL . . . . .            | <a href="#">1608</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqofgrkupp . . . . .       | \sttset . . . . .       |                                                                                                                                                                                          |
| \QCTLP . . . . .           | <a href="#">1623</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqoflatlet . . . . .       |                         | <a href="#">1715</a> , <a href="#">1716</a> , <a href="#">1717</a> , <a href="#">1719</a> ,<br><a href="#">1946</a> , <a href="#">1947</a> , <a href="#">1948</a> , <a href="#">1950</a> |
| \QCTLS . . . . .           | <a href="#">1638</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqoflatlow . . . . .       | \SttSet, \ . . . . .    | <a href="#">1714</a> , <a href="#">1945</a>                                                                                                                                              |
| \QLTL . . . . .            | <a href="#">1577</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqoflatupp . . . . .       | \sttsym . . . . .       |                                                                                                                                                                                          |
| \QMC . . . . .             | <a href="#">1536</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                         | <a href="#">1714</a> , <a href="#">1716</a> , <a href="#">1718</a> , <a href="#">1720</a> ,<br><a href="#">1945</a> , <a href="#">1947</a> , <a href="#">1949</a> , <a href="#">1951</a> |
| \QML . . . . .             | <a href="#">1497</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqoflet . . . . .          | \stx . . . . .          | <a href="#">793</a>                                                                                                                                                                      |
| \qntset . . . . .          | <a href="#">1296</a> , <a href="#">1297</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              | \sub . . . . .          | <a href="#">1289</a>                                                                                                                                                                     |
| \QntSet, \ . . . . .       | <a href="#">1295</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqoflow . . . . .          | \sucfun . . . . .       | <a href="#">1180</a> , <a href="#">1181</a>                                                                                                                                              |
| \qntsym . . . . .          | <a href="#">1295</a> , <a href="#">1297</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \seqoftag . . . . .          | \svarset . . . . .      | <a href="#">1437</a> , <a href="#">1438</a>                                                                                                                                              |
| \QPSpace, \ . . . . .      | <a href="#">1087</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \seqofupp . . . . .          | \SVarSet, \ . . . . .   | <a href="#">1436</a>                                                                                                                                                                     |
| \QPTIME, \ . . . . .       | <a href="#">1086</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \sequence, \ . . . . .       | \svarsym . . . . .      | <a href="#">1436</a> , <a href="#">1438</a>                                                                                                                                              |
| \QPTL . . . . .            | <a href="#">1566</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \sequencel . . . . .         | \symset . . . . .       | <a href="#">1953</a> , <a href="#">1954</a>                                                                                                                                              |
| R                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \sequencer . . . . .         | \SymSet, \ . . . . .    | <a href="#">1952</a>                                                                                                                                                                     |
| \raisebox . . . . .        | <a href="#">947</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \sequencex . . . . .         | \symsym . . . . .       | <a href="#">1952</a> , <a href="#">1954</a>                                                                                                                                              |
| \rangle . . . . .          | <a href="#">884</a> , <a href="#">885</a> , <a href="#">892</a> , <a href="#">893</a> , <a href="#">896</a> ,<br><a href="#">897</a> , <a href="#">904</a> , <a href="#">905</a> , <a href="#">1508</a> , <a href="#">1695</a>                                                                                                                                                                                                                                                                                                                                                                                  | \sequencexl . . . . .        | T                       |                                                                                                                                                                                          |
| \rbrace . . . . .          | <a href="#">910</a> , <a href="#">918</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \sequencexr . . . . .        | \tab@false . . . . .    | <a href="#">115</a> , <a href="#">117</a>                                                                                                                                                |
| \rceil . . . . .           | <a href="#">1025</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \set, \ . . . . .            | \tab@true . . . . .     | <a href="#">116</a>                                                                                                                                                                      |
| \rchfun . . . . .          | <a href="#">1192</a> , <a href="#">1193</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \SetB . . . . .              | \tau . . . . .          | <a href="#">1727</a>                                                                                                                                                                     |
| \relax . . . . .           | <a href="#">130</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \SetC, \ . . . . .           | \TAutSet . . . . .      | <a href="#">1975</a>                                                                                                                                                                     |
| \relset . . . . .          | <a href="#">1355</a> , <a href="#">1356</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \SetCI . . . . .             | \tautset . . . . .      | <a href="#">1975</a> , <a href="#">1976</a>                                                                                                                                              |
| \relsig . . . . .          | <a href="#">1352</a> , <a href="#">1353</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \SetF . . . . .              | \terset . . . . .       | <a href="#">1349</a> , <a href="#">1350</a>                                                                                                                                              |
| \RelSig, \ . . . . .       | <a href="#">1352</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \SetInd . . . . .            | \tersig . . . . .       | <a href="#">1346</a> , <a href="#">1347</a>                                                                                                                                              |
| \relstr . . . . .          | <a href="#">1366</a> , <a href="#">1367</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \SetKw . . . . .             | \TerSig, \ . . . . .    | <a href="#">1346</a>                                                                                                                                                                     |
| \RelStr, \ . . . . .       | <a href="#">1366</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              | \terstr . . . . .       | <a href="#">1364</a> , <a href="#">1365</a>                                                                                                                                              |
| \relsym . . . . .          | <a href="#">1354</a> , <a href="#">1356</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \SetKwFor . . . . .          | \TerStr, \ . . . . .    | <a href="#">1364</a>                                                                                                                                                                     |
| \RequirePackage . . . . .  | <a href="#">3</a> , <a href="#">5</a> ,<br><a href="#">6</a> , <a href="#">7</a> , <a href="#">211</a> , <a href="#">212</a> , <a href="#">213</a> , <a href="#">219</a> ,<br><a href="#">224</a> , <a href="#">229</a> , <a href="#">234</a> , <a href="#">249</a> , <a href="#">264</a> ,<br><a href="#">270</a> , <a href="#">272</a> , <a href="#">1999</a> , <a href="#">2013</a> , <a href="#">2028</a>                                                                                                                                                                                                   | \SetKwIF . . . . .           | \tersym . . . . .       | <a href="#">1348</a> , <a href="#">1350</a>                                                                                                                                              |
| \resp . . . . .            | <a href="#">794</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \setl . . . . .              | \text . . . . .         | <a href="#">294</a> , <a href="#">314</a> , <a href="#">809</a>                                                                                                                          |
| \rfloor . . . . .          | <a href="#">1021</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \setlength . . . . .         | \textstyle . . . . .    | <a href="#">672</a> , <a href="#">673</a>                                                                                                                                                |
| \rho . . . . .             | <a href="#">1156</a> , <a href="#">1729</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \SetN, \ . . . . .           | \textup . . . . .       | <a href="#">809</a>                                                                                                                                                                      |
| \right . . . . .           | <a href="#">355</a> , <a href="#">379</a> , <a href="#">837</a> ,<br><a href="#">860</a> , <a href="#">864</a> , <a href="#">868</a> , <a href="#">872</a> , <a href="#">876</a> ,<br><a href="#">880</a> , <a href="#">884</a> , <a href="#">888</a> , <a href="#">892</a> , <a href="#">896</a> ,<br><a href="#">900</a> , <a href="#">904</a> , <a href="#">908</a> , <a href="#">912</a> , <a href="#">916</a> ,<br><a href="#">920</a> , <a href="#">1011</a> , <a href="#">1015</a> , <a href="#">1019</a> ,<br><a href="#">1023</a> , <a href="#">1042</a> , <a href="#">1510</a> , <a href="#">1697</a> | \SetNI . . . . .             | \thestring . . . . .    | <a href="#">598</a> , <a href="#">599</a> , <a href="#">600</a> , <a href="#">601</a>                                                                                                    |
| \Rightarrow . . . . .      | <a href="#">815</a> , <a href="#">817</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \SetQ, \ . . . . .           | \Theta . . . . .        | <a href="#">958</a>                                                                                                                                                                      |
| \rightarrow . . . . .      | <a href="#">1277</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \SetQI . . . . .             | \theta . . . . .        | <a href="#">957</a>                                                                                                                                                                      |
| \rightharpoonup . . . . .  | <a href="#">945</a> , <a href="#">948</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \SetQNI . . . . .            | \thmtls@false . . . . . | <a href="#">25</a>                                                                                                                                                                       |
| \rmfamily . . . . .        | <a href="#">327</a> , <a href="#">501</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \SetQPI . . . . .            | \thmtls@true . . . . .  | <a href="#">24</a>                                                                                                                                                                       |
| \Role . . . . .            | <a href="#">787</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \setr . . . . .              | \tikzstyle . . . . .    | <a href="#">2001</a> ,<br><a href="#">2003</a> , <a href="#">2005</a> , <a href="#">2007</a> , <a href="#">2009</a>                                                                      |
| \role . . . . .            | <a href="#">785</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \SetR, \ . . . . .           | \Time, \ . . . . .      | <a href="#">1080</a>                                                                                                                                                                     |
| \rrbracket . . . . .       | <a href="#">839</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \SetRI . . . . .             | \TL, \PL, \ . . . . .   | <a href="#">1441</a>                                                                                                                                                                     |
| \rst . . . . .             | <a href="#">936</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | \SetRNI . . . . .            | \top . . . . .          | <a href="#">1265</a>                                                                                                                                                                     |
| \rVert . . . . .           | <a href="#">1017</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \SetRPI . . . . .            | \treeset . . . . .      | <a href="#">1982</a> , <a href="#">1983</a>                                                                                                                                              |
| \rvert . . . . .           | <a href="#">922</a> , <a href="#">1013</a> , <a href="#">1044</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | \SetZ, \ . . . . .           | \TreeSet, \ . . . . .   | <a href="#">1981</a>                                                                                                                                                                     |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \SetZI . . . . .             | \treesym . . . . .      | <a href="#">1981</a> , <a href="#">1983</a>                                                                                                                                              |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \SetZNI . . . . .            | \triangleq . . . . .    | <a href="#">810</a>                                                                                                                                                                      |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \SetZPI . . . . .            | \trn . . . . .          | <a href="#">847</a>                                                                                                                                                                      |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \sffamily . . . . .          | \trnFun . . . . .       | <a href="#">1955</a>                                                                                                                                                                     |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \Sigma . . . . .             | \trnsym . . . . .       | <a href="#">1955</a> , <a href="#">1956</a>                                                                                                                                              |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \sigma . . . . .             | \True, \False . . . . . | <a href="#">2037</a>                                                                                                                                                                     |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \Signature . . . . .         | \Tt, \Ff . . . . .      | <a href="#">1265</a>                                                                                                                                                                     |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \sim . . . . .               |                         |                                                                                                                                                                                          |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \skm . . . . .               |                         |                                                                                                                                                                                          |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \SL, \ . . . . .             |                         |                                                                                                                                                                                          |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |                         |                                                                                                                                                                                          |



|               |                              |                 |                           |                  |                              |
|---------------|------------------------------|-----------------|---------------------------|------------------|------------------------------|
| \ttsym        | 1265, 1266                   | \UFNGSL         | 1884                      | \usrtxt          |                              |
| \tuple,□...   | 882                          | \UFOGSL         | 1782                      |                  | 342, 466, 468, 470, 472,     |
| \tuple1       | 886                          | \UFSL           | 1765                      |                  | 474, 478, 480, 482, 484,     |
| \tupler       | 890                          | \UFXGSL         | 1901                      |                  | 486, 491, 493, 495, 497,     |
| \tuplex       | 894                          | \ULH,□\UBH      | 1098                      |                  | 499, 503, 505, 507, 509, 511 |
| \tuplex1      | 898                          | \ULTL           | 1581                      | \UXGSL           | 1893                         |
| \tuplexrr     | 902                          | \UMC            | 1540                      |                  |                              |
| \txt          | 316                          | \UML            | 1501                      |                  | V                            |
| \txt@false    | 56, 66, 68                   | \UNGSL          | 1876                      | \valset          | 1310, 1311                   |
| \txt@true     | 67                           | \UOGSL          | 1774                      | \ValSet,□...     | 1309                         |
| \txtabr,□...  | 475                          | \upharpoonright | 937                       | \valsym          | 1309, 1311                   |
| \txtarg       | 318                          | \upshape        | 327                       | \varcmd          | 161,                         |
| \txtcom,□...  | 500                          | \UPTL           | 1570                      |                  | 856, 857, 860, 861, 864,     |
| \txtdef,□...  | 463                          | \usetikzlibrary | 2000                      |                  | 865, 868, 869, 872, 873,     |
| \txtgen@false | 53, 56                       | \USL            | 1757                      |                  | 876, 877, 880, 881, 884,     |
| \txtgen@true  |                              | \usrmth         | 433, 441, 443,            |                  | 885, 888, 889, 892, 893,     |
|               | 54, 67, 78, 84, 89, 94       |                 | 445, 447, 449, 451, 453,  |                  | 896, 897, 900, 901, 904, 905 |
| \txtname      | 1257,                        |                 | 455, 457, 522, 524, 526,  | \varepsilon      | 1040                         |
|               | 1322, 1324, 1405, 1407,      |                 | 528, 530, 535, 537, 539,  | \varnothing      | 927, 942                     |
|               | 1411, 1413, 1417, 1419,      |                 | 541, 543, 548, 550, 552,  | \varset          | 1329, 1330                   |
|               | 1423, 1425, 1429, 1431,      |                 | 554, 556, 561, 563, 565,  | \varsig          | 1326, 1327                   |
|               | 1446, 1450, 1454, 1458,      |                 | 567, 569, 574, 576, 578,  | \VarSig,□...     | 1326                         |
|               | 1462, 1469, 1473, 1477,      |                 | 580, 582, 587, 589, 591,  | \varsym          | 1328, 1330                   |
|               | 1481, 1485, 1494, 1498,      |                 | 593, 595, 606, 608, 610,  | \vec             | 849                          |
|               | 1533, 1537, 1545, 1549,      |                 | 612, 614, 619, 621, 623,  | \vert            | 910, 914                     |
|               | 1553, 1567, 1578, 1605,      |                 | 625, 627, 632, 634, 636,  | \Viceversa       | 779                          |
|               | 1609, 1620, 1624, 1635,      |                 | 638, 640, 645, 647, 649,  | \viceversa       | 762                          |
|               | 1639, 1654, 1658, 1669,      |                 | 651, 653, 675, 677, 681,  | \viz             | 764                          |
|               | 1673, 1684, 1688, 1761,      |                 | 687, 689, 691, 693, 695,  | \vs              | 763                          |
|               | 1778, 1795, 1812, 1829,      |                 | 700, 702, 704, 706, 708,  |                  | W                            |
|               | 1846, 1863, 1880, 1897       |                 | 714, 716, 718, 720, 722,  | \WATL            | 1653                         |
| \txtname,□... | 488                          |                 | 727, 729, 731, 733, 735,  | \WATLP           | 1668                         |
| \txtoarg      | 320                          |                 | 929, 930, 931, 932, 950,  | \WATLS           | 1683                         |
| \txtoargcom   | 1054, 1070                   |                 | 951, 952, 953, 955, 956,  | \WAutSet         | 1943                         |
| \txtopar      | 324                          |                 | 957, 958, 959, 960, 1027, | \wautset         | 1943, 1944                   |
| \txtoparcom   | 1072                         |                 | 1028, 1029, 1030, 1031,   | \WCTL            | 1604                         |
| \txtpar       | 322                          |                 | 1032, 1033, 1034, 1035,   | \WCTLP           | 1619                         |
| \txtsty       |                              |                 | 1036, 1037, 1045, 1046,   | \WCTLs           | 1634                         |
|               | 317, 319, 321, 323, 325, 326 |                 | 1266, 1268, 1270, 1272,   | \wghset          | 1241, 1242                   |
| \txtstyabr    | 476                          |                 | 1274, 1276, 1278, 1280,   | \WghSet,□\wghFun | 1240                         |
| \txtstycom    | 501                          |                 | 1282, 1284, 1288, 1289,   | \wghsym          | 1240, 1242                   |
| \txtstydef    | 464                          |                 | 1290, 1291, 1292, 1293,   | \WH              | 1092                         |
| \txtstyname   | 489                          |                 | 1294, 1298, 1299, 1300,   | \widehat         | 846                          |
| \txtsubsup    | 294, 313                     |                 | 1301, 1331, 1332, 1338,   | \widetilde       | 848                          |
|               |                              |                 | 1344, 1345, 1351, 1357,   | \WinSet          | 1146                         |
|               | U                            |                 | 1358, 1394, 1396, 1504,   | \winset          | 1146, 1147                   |
| \UAFMC        | 1556                         |                 | 1505, 1506, 1584, 1585,   | \Wlogx           | 799                          |
| \UAGSL        | 1825                         |                 | 1586, 1587, 1588, 1589,   | \wlogx           | 796                          |
| \UATL         | 1661                         |                 | 1590, 1591, 1592, 1593,   | \WMPL            | 1480                         |
| \UATLP        | 1676                         |                 | 1645, 1646, 1907, 1908    | \WMSO            | 1424                         |
| \UATLS        | 1691                         | \usrmthgrklet   | 450                       | \WMSOL           | 1422                         |
| \UBF          | 1260                         | \usrmthgrklow   | 446                       | \WMTL            | 1457                         |
| \UBGSL        | 1859                         | \usrmthgrkupp   | 448                       | \wotFun          | 1984                         |
| \UCGSL        | 1791                         | \usrmthlatlet   | 444                       | \wotfun          | 1984, 1985                   |
| \UCTL         | 1612                         | \usrmthlatlow   | 440                       | \wp              | 1295                         |
| \UCTLP        | 1627                         | \usrmthlatupp   | 442,                      | \WPL             | 1468                         |
| \UCTLS        |                              |                 | 1130, 1145, 1264, 1308,   | \wordset         | 1961, 1962                   |
| \UDGSL        | 1808                         |                 | 1327, 1334, 1340, 1347,   | \WrdSet,□...     | 1960                         |
| \UEGSL        | 1842                         |                 | 1353, 1361, 1363, 1365,   | \wrdsym          | 1960, 1962                   |
| \UFAGSL       | 1833                         |                 | 1367, 1513, 1701, 1940    | \wrlset          | 1515, 1516                   |
| \UFBGSL       | 1867                         | \usrmthlet      | 456, 598, 600             | \WrlSet,□...     | 1514                         |
| \UFCGSL       | 1799                         | \usrmthlow      | 452                       | \wrlsym          | 1514, 1516, 1517             |
| \UFDGSL       | 1816                         | \usrmthupp      | 454                       | \wrpfig@false    | 111                          |
| \UFEGL        | 1850                         |                 |                           |                  |                              |

|                    |            |             |                        |             |               |                  |
|--------------------|------------|-------------|------------------------|-------------|---------------|------------------|
| \wrpfig@true ..... | 110        |             | <b>X</b>               |             | \xi .....     | 1175, 1309, 1748 |
| \wrt .....         | <u>795</u> | \X,□...     |                        | <u>1584</u> | \xspace ..... | 294              |
| \WS0 .....         | 1406       | \XGSL ..... | 1888, 1892, 1894       |             |               |                  |
| \WSOL .....        | 1404       | \xGSL ....  | 1795, 1812, 1829,      |             | <b>Y</b>      |                  |
| \WTL .....         | 1445       |             | 1846, 1863, 1880, 1897 | \Y,□...     |               | <u>1589</u>      |