α	\alpha	θ	\theta	o	o	τ	\tau
β	\beta	ϑ	\vartheta	π	\pi	υ	\upsilon
γ	\gamma	ι	\iota	ϖ	\varpi	ϕ	\phi
δ	\delta	κ	\kappa	ρ	\rho	φ	\varphi
ϵ	\epsilon	λ	\lambda	ϱ	\varrho	χ	\chi
ε	\varepsilon	μ	\mu	σ	\sigma	ψ	\psi
ζ	\zeta	ν	\nu	ς	\varsigma	ω	\omega
η	\eta	ξ	\xi				
Γ	\Gamma	Λ	\Lambda	Σ	\Sigma	Ψ	\Psi
Δ	\Delta	Ξ	\Xi	Υ	\Upsilon	Ω	\Omega
Θ	\Theta	Π	\Pi	Φ	\Phi		

Table 1: Greek Letters

$\pm$	\pm	$\cap$	\cap	$\diamond$	\diamond	$\oplus$	\oplus
$\mp$	\mp	$\cup$	\cup	$\bigtriangleup$	\bigtriangleup	$\ominus$	\ominus
$\times$	\times	$\uplus$	\uplus	$\bigtriangledown$	\bigtriangledown	$\otimes$	\otimes
$\div$	\div	$\sqcap$	\sqcap	$\triangleleft$	\triangleleft	$\oslash$	\oslash
$*$	\ast	$\sqcup$	\sqcup	$\triangleright$	\triangleright	$\odot$	\odot
$\star$	\star	$\vee$	\vee	$\lhd$*	\lhd*	$\bigcirc$	\bigcirc
$\circ$	\circ	$\wedge$	\wedge	$\rhd$*	\rhd*	$\dagger$	\dagger
$\bullet$	\bullet	$\setminus$	\setminus	$\unlhd$*	\unlhd*	$\ddagger$	\ddagger
$\cdot$	\cdot	$\wr$	\wr	$\unrhd$*	\unrhd*	$\amalg$	\amalg
$+$	+	$-$	-				

* Not predefined in LaTeX 2$_\varepsilon$. Use one of the packages latexsym, amsfonts or amssymb.

Table 2: Binary Operation Symbols

$\leq$	\leq	$\geq$	\geq	$\equiv$	\equiv	$\models$	\models
$\prec$	\prec	$\succ$	\succ	$\sim$	\sim	$\perp$	\perp
$\preceq$	\preceq	$\succeq$	\succeq	$\simeq$	\simeq	$\mid$	\mid
$\ll$	\ll	$\gg$	\gg	$\asymp$	\asymp	$\parallel$	\parallel
$\subset$	\subset	$\supset$	\supset	$\approx$	\approx	$\bowtie$	\bowtie
$\subseteq$	\subseteq	$\supseteq$	\supseteq	$\cong$	\cong	$\Join$*	\Join*
$\sqsubset$*	\sqsubset*	$\sqsupset$*	\sqsupset*	$\neq$	\neq	$\smile$	\smile
$\sqsubseteq$	\sqsubseteq	$\sqsupseteq$	\sqsupseteq	$\doteq$	\doteq	$\frown$	\frown
$\in$	\in	$\ni$	\ni	$\propto$	\propto	$=$	=
$\vdash$	\vdash	$\dashv$	\dashv	$<$	<	$>$	>
$:$	:						

* Not predefined in LaTeX 2$_\varepsilon$. Use one of the packages latexsym, amsfonts or amssymb.

Table 3: Relation Symbols

,	,	;	;	:	\colon	.	\ldotp	·	\cdotp

Table 4: Punctuation Symbols

$\leftarrow$	\leftarrow	$\longleftarrow$	\longleftarrow	$\uparrow$	\uparrow
$\Leftarrow$	\Leftarrow	$\Longleftarrow$	\Longleftarrow	$\Uparrow$	\Uparrow
$\rightarrow$	\rightarrow	$\longrightarrow$	\longrightarrow	$\downarrow$	\downarrow
$\Rightarrow$	\Rightarrow	$\Longrightarrow$	\Longrightarrow	$\Downarrow$	\Downarrow
$\leftrightarrow$	\leftrightarrow	$\longleftrightarrow$	\longleftrightarrow	$\updownarrow$	\updownarrow
$\Leftrightarrow$	\Leftrightarrow	$\Longleftrightarrow$	\Longleftrightarrow	$\Updownarrow$	\Updownarrow
$\mapsto$	\mapsto	$\longmapsto$	\longmapsto	$\nearrow$	\nearrow
$\hookleftarrow$	\hookleftarrow	$\hookrightarrow$	\hookrightarrow	$\searrow$	\searrow
$\leftharpoonup$	\leftharpoonup	$\rightharpoonup$	\rightharpoonup	$\swarrow$	\swarrow
$\leftharpoondown$	\leftharpoondown	$\rightharpoondown$	\rightharpoondown	$\nwarrow$	\nwarrow
$\rightleftharpoons$	\rightleftharpoons	$\leadsto$*	\leadsto*		

* Not predefined in LaTeX 2ε. Use one of the packages latexsym, amsfonts or amssymb.

Table 5: Arrow Symbols

$\ldots$	\ldots	$\cdots$	\cdots	$\vdots$	\vdots	$\ddots$	\ddots
$\aleph$	\aleph	$\prime$	\prime	$\forall$	\forall	∞	\infty
$\hbar$	\hbar	$\emptyset$	\emptyset	$\exists$	\exists	$\Box$	\Box*
$\imath$	\imath	∇	\nabla	$\neg$	\neg	$\Diamond$	\Diamond*
$\jmath$	\jmath	$\surd$	\surd	$\flat$	\flat	$\triangle$	\triangle
ℓ	\ell	$\top$	\top	$\natural$	\natural	$\clubsuit$	\clubsuit
$\wp$	\wp	$\bot$	\bot	$\sharp$	\sharp	$\diamondsuit$	\diamondsuit
$\Re$	\Re	$\|$	|	$\backslash$	\backslash	$\heartsuit$	\heartsuit
$\Im$	\Im	$\angle$	\angle	∂	\partial	$\spadesuit$	\spadesuit
$\mho$	\mho*	.	.	$\|$	|		

* Not predefined in LaTeX 2ε. Use one of the packages latexsym, amsfonts or amssymb.

Table 6: Miscellaneous Symbols

$\sum$	\sum	$\bigcap$	\bigcap	$\bigodot$	\bigodot
$\prod$	\prod	$\bigcup$	\bigcup	$\bigotimes$	\bigotimes
$\coprod$	\coprod	$\bigsqcup$	\bigsqcup	$\bigoplus$	\bigoplus
$\int$	\int	$\bigvee$	\bigvee	$\biguplus$	\biguplus
$\oint$	\oint	$\bigwedge$	\bigwedge		

Table 7: Variable-sized Symbols

\arccos	\cos	\csc	\exp	\ker	\limsup	\min	\sinh
\arcsin	\cosh	\deg	\gcd	\lg	\ln	\Pr	\sup
\arctan	\cot	\det	\hom	\lim	\log	\sec	\tan
\arg	\coth	\dim	\inf	\liminf	\max	\sin	\tanh

Table 8: Log-like Symbols

(	(	)	)	$\uparrow$	\uparrow	$\Uparrow$	\Uparrow
[	[	]	]	$\downarrow$	\downarrow	$\Downarrow$	\Downarrow
{	\{	}	\}	$\updownarrow$	\updownarrow	$\Updownarrow$	\Updownarrow
$\lfloor$	\lfloor	$\rfloor$	\rfloor	$\lceil$	\lceil	$\rceil$	\rceil
$\langle$	\langle	$\rangle$	\rangle	/	/	\	\backslash
$\|$	|	$\|\|$	\\|				

Table 9: Delimiters

$\rmoustache$	\rmoustache	$\lmoustache$	\lmoustache	$\rgroup$	\rgroup	$\lgroup$	\lgroup
$\arrowvert$	\arrowvert	$\Arrowvert$	\Arrowvert	$\bracevert$	\bracevert		

Table 10: Large Delimiters

$\hat{a}$	\hat{a}	$\acute{a}$	\acute{a}	$\bar{a}$	\bar{a}	$\dot{a}$	\dot{a}	$\breve{a}$	\breve{a}
$\check{a}$	\check{a}	$\grave{a}$	\grave{a}	$\vec{a}$	\vec{a}	$\ddot{a}$	\ddot{a}	$\tilde{a}$	\tilde{a}

Table 11: Math mode accents

$\widetilde{abc}$	\widetilde{abc}	$\widehat{abc}$	\widehat{abc}
$\overleftarrow{abc}$	\overleftarrow{abc}	$\overrightarrow{abc}$	\overrightarrow{abc}
$\overline{abc}$	\overline{abc}	$\underline{abc}$	\underline{abc}
$\overbrace{abc}$	\overbrace{abc}	$\underbrace{abc}$	\underbrace{abc}
$\sqrt{abc}$	\sqrt{abc}	$\sqrt[n]{abc}$	\sqrt[n]{abc}
f'	f'	$\frac{abc}{xyz}$	\frac{abc}{xyz}

Table 12: Some other constructions

$\ulcorner$	\ulcorner	$\urcorner$	\urcorner	$\llcorner$	\llcorner	$\lrcorner$	\lrcorner

Table 13: AMS Delimiters

$\dashrightarrow$	\dashrightarrow	$\dashleftarrow$	\dashleftarrow	$\leftleftarrows$	\leftleftarrows	$\leftrightarrows$	\leftrightarrows
$\Lleftarrow$	\Lleftarrow	$\twoheadleftarrow$	\twoheadleftarrow	$\leftarrowtail$	\leftarrowtail	$\looparrowleft$	\looparrowleft
$\leftrightharpoons$	\leftrightharpoons	$\curvearrowleft$	\curvearrowleft	$\circlearrowleft$	\circlearrowleft	$\Lsh$	\Lsh
$\upuparrows$	\upuparrows	$\upharpoonleft$	\upharpoonleft	$\downharpoonleft$	\downharpoonleft	$\multimap$	\multimap
$\leftrightsquigarrow$	\leftrightsquigarrow	$\rightrightarrows$	\rightrightarrows	$\rightleftarrows$	\rightleftarrows	$\rightrightarrows$	\rightrightarrows
$\rightleftarrows$	\rightleftarrows	$\twoheadrightarrow$	\twoheadrightarrow	$\rightarrowtail$	\rightarrowtail	$\looparrowright$	\looparrowright
$\rightleftharpoons$	\rightleftharpoons	$\curvearrowright$	\curvearrowright	$\circlearrowright$	\circlearrowright	$\Rsh$	\Rsh
$\downdownarrows$	\downdownarrows	$\upharpoonright$	\upharpoonright	$\downharpoonright$	\downharpoonright	$\rightsquigarrow$	\rightsquigarrow

Table 14: AMS Arrows

$\nleftarrow$	\nleftarrow	$\nrightarrow$	\nrightarrow	$\nLeftarrow$	\nLeftarrow	$\nRightarrow$	\nRightarrow
$\nleftrightarrow$	\nleftrightarrow	$\nLeftrightarrow$	\nLeftrightarrow				

Table 15: AMS Negated Arrows

$\digamma$	\digamma	$\varkappa$	\varkappa

Table 16: AMS Greek

$\beth$	\beth	$\daleth$	\daleth	$\gimel$	\gimel

Table 17: AMS Hebrew

$\hbar$	\hbar	$\hslash$	\hslash	$\vartriangle$	\vartriangle	$\triangledown$	\triangledown
$\square$	\square	$\lozenge$	\lozenge	Ⓢ	\circledS	$\angle$	\angle
$\measuredangle$	\measuredangle	$\nexists$	\nexists	$\mho$	\mho	$\Finv$	\Finv
$\Game$	\Game	$\Bbbk$	\Bbbk	$\backprime$	\backprime	$\varnothing$	\varnothing
$\blacktriangle$	\blacktriangle	$\blacktriangledown$	\blacktriangledown	$\blacksquare$	\blacksquare	$\blacklozenge$	\blacklozenge
$\bigstar$	\bigstar	$\sphericalangle$	\sphericalangle	$\complement$	\complement	$\eth$	\eth
$\diagup$	\diagup	$\diagdown$	\diagdown				

Table 18: AMS Miscellaneous

$\dotplus$	\dotplus	$\smallsetminus$	\smallsetminus	$\Cap$	\Cap	$\Cup$	\Cup
$\barwedge$	\barwedge	$\veebar$	\veebar	$\doublebarwedge$	\doublebarwedge	$\boxminus$	\boxminus
$\boxtimes$	\boxtimes	$\boxdot$	\boxdot	$\boxplus$	\boxplus	$\divideontimes$	\divideontimes
$\ltimes$	\ltimes	$\rtimes$	\rtimes	$\leftthreetimes$	\leftthreetimes	$\rightthreetimes$	\rightthreetimes
$\curlywedge$	\curlywedge	$\curlyvee$	\curlyvee	$\circleddash$	\circleddash	$\circledast$	\circledast
$\circledcirc$	\circledcirc	$\centerdot$	\centerdot	$\intercal$	\intercal		

Table 19: AMS Binary Operators

$\leqq$	\leqq	$\leqslant$	\leqslant	$\eqslantless$	\eqslantless	$\lesssim$	\lesssim
$\lessapprox$	\lessapprox	$\approxeq$	\approxeq	$\lessdot$	\lessdot	$\lll$	\lll
$\lessgtr$	\lessgtr	$\lesseqgtr$	\lesseqgtr	$\lesseqqgtr$	\lesseqqgtr	$\doteqdot$	\doteqdot
$\risingdotseq$	\risingdotseq	$\fallingdotseq$	\fallingdotseq	$\backsim$	\backsim	$\backsimeq$	\backsimeq
$\subseteqq$	\subseteqq	$\Subset$	\Subset	$\sqsubset$	\sqsubset	$\preccurlyeq$	\preccurlyeq
$\curlyeqprec$	\curlyeqprec	$\precsim$	\precsim	$\precapprox$	\precapprox	$\vartriangleleft$	\vartriangleleft
$\trianglelefteq$	\trianglelefteq	$\vDash$	\vDash	$\Vvdash$	\Vvdash	$\smallsmile$	\smallsmile
$\smallfrown$	\smallfrown	$\bumpeq$	\bumpeq	$\Bumpeq$	\Bumpeq	$\geqq$	\geqq
$\geqslant$	\geqslant	$\eqslantgtr$	\eqslantgtr	$\gtrsim$	\gtrsim	$\gtrapprox$	\gtrapprox
$\gtrdot$	\gtrdot	$\ggg$	\ggg	$\gtrless$	\gtrless	$\gtreqless$	\gtreqless
$\gtreqqless$	\gtreqqless	$\eqcirc$	\eqcirc	$\circeq$	\circeq	$\triangleq$	\triangleq
$\thicksim$	\thicksim	$\thickapprox$	\thickapprox	$\supseteqq$	\supseteqq	$\Supset$	\Supset
$\sqsupset$	\sqsupset	$\succcurlyeq$	\succcurlyeq	$\curlyeqsucc$	\curlyeqsucc	$\succsim$	\succsim
$\succapprox$	\succapprox	$\vartriangleright$	\vartriangleright	$\trianglerighteq$	\trianglerighteq	$\Vdash$	\Vdash
$\shortmid$	\shortmid	$\shortparallel$	\shortparallel	$\between$	\between	$\pitchfork$	\pitchfork
$\varpropto$	\varpropto	$\blacktriangleleft$	\blacktriangleleft	$\therefore$	\therefore	$\backepsilon$	\backepsilon
$\blacktriangleright$	\blacktriangleright	$\because$	\because				

Table 20: AMS Binary Relations

$\nless$	\nless	$\nleq$	\nleq	$\nleqslant$	\nleqslant	$\nleqq$	\nleqq
$\lneq$	\lneq	$\lneqq$	\lneqq	$\lvertneqq$	\lvertneqq	$\lnsim$	\lnsim
$\lnapprox$	\lnapprox	$\nprec$	\nprec	$\npreceq$	\npreceq	$\precnsim$	\precnsim
$\precnapprox$	\precnapprox	$\nsim$	\nsim	$\nshortmid$	\nshortmid	$\nmid$	\nmid
$\nvdash$	\nvdash	$\nvDash$	\nvDash	$\ntriangleleft$	\ntriangleleft	$\ntrianglelefteq$	\ntrianglelefteq
$\nsubseteq$	\nsubseteq	$\subsetneq$	\subsetneq	$\varsubsetneq$	\varsubsetneq	$\subsetneqq$	\subsetneqq
$\varsubsetneqq$	\varsubsetneqq	$\ngtr$	\ngtr	$\ngeq$	\ngeq	$\ngeqslant$	\ngeqslant
$\ngeqq$	\ngeqq	$\gneq$	\gneq	$\gneqq$	\gneqq	$\gvertneqq$	\gvertneqq
$\gnsim$	\gnsim	$\gnapprox$	\gnapprox	$\nsucc$	\nsucc	$\nsucceq$	\nsucceq
$\nsucceq$	\nsucceq	$\succnsim$	\succnsim	$\succnapprox$	\succnapprox	$\ncong$	\ncong
$\nshortparallel$	\nshortparallel	$\nparallel$	\nparallel	$\nvDash$	\nvDash	$\nVDash$	\nVDash
$\ntriangleright$	\ntriangleright	$\ntrianglerighteq$	\ntrianglerighteq	$\nsupseteq$	\nsupseteq	$\nsupseteqq$	\nsupseteqq
$\supsetneq$	\supsetneq	$\varsupsetneq$	\varsupsetneq	$\supsetneqq$	\supsetneqq	$\varsupsetneqq$	\varsupsetneqq

Table 21: AMS Negated Binary Relations

⦇	\Lbag	⦈	\Rbag	⦇	\lbag	⦈	\rbag
⌈⌈	\llceil	⌉⌉	\rrceil	⌊⌊	\llfloor	⌋⌋	\rrfloor
⟦	\llbracket	⟧	\rrbracket				

Table 22: stmaryrd Delimiters

⟸	\Longmapsfrom	⟹	\Longmapsto	⇤	\Mapsfrom	⇥	\Mapsto
↗	\nnearrow	↖	\nnwarrow	↘	\ssearrow	↙	\sswarrow
↓	\shortdownarrow	↑	\shortuparrow	←	\shortleftarrow	→	\shortrightarrow
⟵	\longmapsfrom	↤	\mapsfrom	↞	\leftarrowtriangle	↠	\rightarrowtriangle
↯	\lightning	⦈	\rrparenthesis	⇆	\leftrightarroweq	↔	\leftrightarrowtriangle

Table 23: stmaryrd Arrows

/	\Arrownot	⊦	\Mapsfromchar	⊦	\Mapstochar
⁄	\arrownot	⊦	\mapsfromchar		

Table 24: stmaryrd Extension Characters

⋎	\Ydown	⋏	\Yleft	⋎	\Yright	⋏	\Yup
⌽	\baro	⧵	\bbslash	&	\binampersand	⌘	\bindnasrepma
⊠	\boxast	⧈	\boxbar	⧈	\boxbox	⧅	\boxbslash
⧈	\boxcircle	⊡	\boxdot	□	\boxempty	⧄	\boxslash
⋎	\curlyveedownarrow	⋎	\curlyveeuparrow	⋏	\curlywedgedownarrow	⋏	\curlywedgeuparrow
⧵	\fatbslash	⨾	\fatsemi	⧸	\fatslash	⫴	\interleave
⊲	\leftslice	⋔	\merge	⊖	\minuso	⊥	\moo
⊞	\nplus	⦶	\obar	□	\oblong	⦸	\obslash
⦸	\ogreaterthan	⦸	\olessthan	⦸	\ovee	⦸	\owedge
⊳	\rightslice	⫽	\sslash	▯	\talloblong	◯	\varbigcirc
⋎	\varcurlyvee	⋏	\varcurlywedge	⊛	\varoast	⦶	\varobar
⦸	\varobslash	◎	\varocircle	⊙	\varodot	⦸	\varogreaterthan
⦸	\varolessthan	⊖	\varominus	⊕	\varoplus	⊘	\varoslash
⊗	\varotimes	⦸	\varovee	⦸	\varowedge	⋇	\vartimes

Table 25: stmaryrd Binary Operators

⨆	\bigbox	⋎	\bigcurlyvee	⋏	\bigcurlywedge
⫼	\biginterleave	⊞	\bignplus	‖	\bigparallel
⨅	\bigsqcap	▽	\bigtriangledown	△	\bigtriangleup

Table 26: stmaryrd Large Binary Operators

⊂⊂	\inplus	⊃⊃	\niplus	⊂⊂	\subsetplus	⊂⊂	\subsetpluseq
⊃⊃	\supsetplus	⊃⊃	\supsetpluseq	⊲	\triangleleftеqslant	⊳	\trianglerighteqslant

Table 27: stmaryrd Binary Relations

⋠	\ntriangleleftеqslant	⋡	\ntrianglerighteqslant

Table 28: stmaryrd Negated Binary Relations

		Required package
ABCdef	`\mathrm{ABCdef}`	
$ABCdef$	`\mathit{ABCdef}`	
$ABCdef$	`\mathnormal{ABCdef}`	
$\mathcal{ABC}$	`\mathcal{ABC}`	
$\mathcal{ABC}$	`\mathcal{ABC}`	euscript with option: mathcal
	`\mathscr{ABC}`	euscript with option: mathcr
$\mathfrak{ABCdef}$	`\mathfrak{ABCdef}`	eufrak
$\mathbb{ABC}$	`\mathbb{ABC}`	amsfonts or amssymb

Table 29: Math Alphabets