

Pennstander fonts (*experimental*)

User's Guide for LaTeX (v0.1)

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1 What is Pennstander ?

Pennstander is a set of OpenType text and math fonts developed by Julius Ross, see github.com/juliusross1 for more information.

This package is based on v0.2.1 version of fonts.

The text and the math fonts are licensed under the SIL Open Font License, Version 1.1.

They require LuaTeX or XeTeX as engine and the unicode-math package¹, if math fonts are required or just the fontspec package² otherwise.

¹Please read the documentation `unicode-math.pdf`.

²Please read the documentation `fontspec.pdf`.

2 Usage

2.1 Loading text fonts and math fonts

Several weights are available, for text and/or math version :

thin / ExtraLight / Light / Regular / Medium / SemiBold / Bold

$$\sum_{n=1}^{+\infty} \frac{1}{n^2} = \frac{\pi^2}{6} / \sum_{n=1}^{+\infty} \frac{1}{n^2} = \frac{\pi^2}{6} / \sum_{n=1}^{+\infty} \frac{1}{n^2} = \frac{\pi^2}{6} / \sum_{n=1}^{+\infty} \frac{1}{n^2} = \frac{\pi^2}{6} / \sum_{n=1}^{+\infty} \frac{1}{n^2} = \frac{\pi^2}{6} / \sum_{n=1}^{+\infty} \frac{1}{n^2} = \frac{\pi^2}{6} / \sum_{n=1}^{+\infty} \frac{1}{n^2} = \frac{\pi^2}{6}$$

Files Pennstander(math)-<weight>.fontspec are provided to ensure that *Italic*, **Bold**, **BoldItalic** and (*fake*)*Slanted* variants are properly loaded.

A basic call for Pennstander text and math fonts could be:

```
\usepackage{pennstander-otf}
```

It loads:

- Pennstander-Regular as main font;
- PennstanderMath-Regular as math font.

It defines \eff for *florin math f*.

Theorem 1 (Residue Theorem). Let f be analytic in the region G except for the isolated singularities a_1, a_2, \dots, a_m . If γ is a closed rectifiable curve in G which does not pass through any of the points a_k and if $\gamma \approx 0$ in G then

$$\frac{1}{2\pi i} \int_{\gamma} f = \sum_{k=1}^m n(\gamma; a_k) \text{Res}(f; a_k).$$

Theorem 2 (Maximum Modulus). Let G be a bounded open set in \mathbb{C} and suppose that f is a continuous function on \bar{G} which is analytic in G . Then

$$\max\{|f(z)| : z \in \bar{G}\} = \max\{|f(z)| : z \in \partial G\}.$$

2.2 Options

Options can be given within the package:

- `Weight=...`, within `Thin/ExtraLight/Light/Regular/Medium/SemiBold/Bold`;
- or individual `WeightT=...`, `WeightM=...`
- the boolean `no-text` for not loading pennstander as main font;
- the boolean `no-math` for not loading pennstander as math font;
- the boolean `altfour` for alternate version of 4;
- the boolean `frenchseven` for alternate version of 7 (with bar);
- `math-style=...` for unicode-math option;
- `bold-style=...` for unicode-math option;
- `StylisticSet=...` or `StylisticSetT=...`, `StylisticSetM=...`;
- `RawFeature=...` or `RawFeatureT=...`, `RawFeatureM=...`;
- `Scale=...` or `ScaleT=...`, `ScaleM=...`

2.3 Manual loading

It's also possible to load text and/or math fonts with `\setmainfont` and/or `\setmathfont`, thanks to `fontspec` files for example.

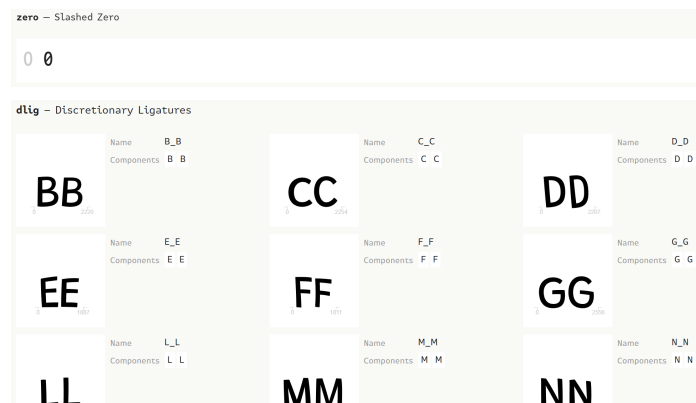
```
%w/o package loaded
\usepackage{fontspec}
\usepackage{unicode-math}
\setmainfont{Pennstander-<weight>}[options]
\setmathfont{PennstanderMath-<weight>}[options]
```

3 Openfeatures

3.1 For text font

Extra openfeatures for text font available are (screens are from fontdrop website):

- **aalt**: Access All Alternatives
- **ccmp**: Glyph Composition/Decomposition
- **locl**: Localized Forms
- **sup**: Superscript
- **numr**: Numerators
- **dnom**: Denominators
- **frac**: Fractions
- **ordn**: Ordinals
- **pnum**: Proportional Figures
- **tnum**: Tabular Figures
- **case**: Case-Sensitive Forms
- **dlig**: Discretionary Ligatures
- **liga**: Standard Ligatures
- **zero**: Slashed Zero
- **csp**: Capital Spacing
- **ss02**: Alternate A,M,N,Q,V,W,Z,v,z
- **ss03**: Alternate 4
- **ss04**: Alternate l,t
- **ss06**: Alternate ampersand
- **ss07**: Alternate 7





3.2 For math font

Extra openfeatures for math font available are:

- **aalt:** Access All Alternatives
- **dtls:** Dotless Forms
- **zero:** Slashed Zero
- **frac:** Fractions
- **ss01:** Alternate a,g,I,Iota
- **ss02:** Alternate A,M,N,Q,V,W,Z,v,z,Alpha,Mu,Rho,Zeta
- **ss03:** Alternate 4
- **ss04:** Alternate l,t
- **ss05:** Simplified Fraktur A,K,L,X,Y,Z,x,y
- **ss07:** Alternate 7

3.3 Unicode Private Use Area

Glyphs assigned to Unicode Private Use Area:

- Double-struck uppercase Greek letters: U+E1002–U+E1008
- Fraction Rule: U+E000
- Radical Rule: U+E001

4 List of glyphs

4.1 Text version

Table 1: Pennstander-Regular

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Basic Latin																
U+0000–000F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U+0020–002F		!	”	#	\$	%	&	'	()	*	+	,	-	.	/
U+0030–003F	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
U+0040–004F	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
U+0050–005F	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
U+0060–006F	'	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
U+0070–007F	p	q	r	s	t	u	v	w	x	y	z	{		}	~	-
Latin-1 Supplement																
U+00A0–00AF		ı	¢	£	¤	¥	¦	§	¨	©	ª	«	¬	-	®	-
U+00B0–00BF	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
U+00C0–00CF	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
U+00D0–00DF	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
U+00E0–00EF	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
U+00F0–00FF	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ
Latin Extended-A																
U+0100–010F	Ā	ā	Ă	ă	Ą	ą	Ć	ć	Ĉ	ĉ	Č	č	Ď	ď		
U+0110–011F	Đ	đ	Ē	ē	Ė	ė	É	é	Ě	ě	Ĝ	ĝ	Ğ	ğ		
U+0120–012F	Ġ	ġ	Ģ	ģ	Ĥ	ĥ	Ħ	ħ	-	ĩ	Ī	ī	Ĭ	ĭ	Į	į
U+0130–013F	İ	ı	-	-	Ĵ	ĵ	Ķ	ķ	κ	Ĺ	ĺ	Ł	ł	Ł	ł	Ł
U+0140–014F	Ł	ł	Ł	ł	Ń	ń	Ņ	ņ	Ň	ň	-	Ŋ	ŋ	Ō	ō	Ŏ
U+0150–015F	Ŏ	ŏ	Œ	œ	Ř	ř	Ŕ	ŕ	Ř	ř	Ś	ś	Ŝ	ŝ	Ş	ş
U+0160–016F	Š	š	Ţ	ţ	Ť	ť	Ŧ	ŧ	Ũ	ũ	Ū	ū	Ŭ	ŭ	Ů	ů
U+0170–017F	Ů	ů	Ų	ų	Ŵ	ŵ	Ŷ	ŷ	Ź	ź	Ż	ż	Ž	ž		
Latin Extended-B																
U+0180–018F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ə
U+0190–019F	-	-	f	-	-	-	-	-	-	-	-	-	-	-	-	-
U+01A0–01AF	Œ	œ	-	-	-	-	-	-	-	-	-	-	-	-	-	Ů
U+01B0–01BF	Ů	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U+01C0–01CF	-	-	-	-	ĐŽ	Đž	dž	LJ	Lj	lj	NJ	Nj	nj	Ǻ	ǻ	Ǽ
U+01D0–01DF	Ǽ	Ǿ	ǿ	Ǟ	ǟ	Ǡ	ǡ	Ǣ	ǣ	Ǥ	ǥ	Ǧ	ǧ	Ǩ	ǩ	-
U+01E0–01EF	-	-	-	-	-	-	Ǫ	ǫ	-	-	Ǭ	ǭ	-	-	-	-

Table 1: Pennstander-Regular *cont.*

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+01F0–01FF	–	–	–	–	–	–	–	–	–	–	Ǻ	ǻ	Æ	æ	Ǿ	ǿ
U+0200–020F	À	Ả	Â	â	É	ě	Ê	ê	Ì	ì	Î	î	Ó	õ	Ô	ô
U+0210–021F	Ř	ř	Ŕ	ř	Ů	ů	Ű	ű	Ş	ş	Ț	ț	–	–	–	–
U+0220–022F	–	–	–	–	–	–	–	–	–	–	Ȯ	ȯ	Ȱ	ȱ	–	–
U+0230–023F	Ȫ	ȫ	Ȭ	ȭ	–	–	–	Ȱ	–	–	–	–	–	–	–	–
IPA Extensions																
U+0250–025F	–	–	–	–	–	–	–	–	–	ə	–	–	–	–	–	–
Spacing Modifier Letters																
U+02B0–02BF	–	–	–	–	–	–	–	–	–	–	–	–	’	–	–	–
U+02C0–02CF	–	–	–	–	–	–	^	˘	–	–	–	–	–	–	–	–
U+02D0–02DF	–	–	–	–	–	–	–	˘	˙	˚	–	–	˜	˝	–	–
Combining Diacritical Marks																
U+0300–030F	ˆ	ˆ	ˆ	˜	–	–	˘	˙	˚	˛	˜	˘	–	–	–	˜
U+0310–031F	–	ˆ	ˆ	–	–	–	–	–	–	–	–	˙	–	–	–	–
U+0320–032F	–	–	–	˙	˚	–	˙	˚	–	–	–	–	–	–	˘	–
U+0330–033F	–	–	–	–	–	–	/	/	–	–	–	–	–	–	–	–
Latin Extended Additional																
U+1E00–1E0F	–	–	–	–	–	–	–	–	Ć	ć	–	–	Đ	đ	Đ	đ
U+1E10–1E1F	–	–	–	–	È	è	É	é	–	–	–	–	Ė	ė	–	–
U+1E20–1E2F	Ġ	ġ	–	–	Ĥ	ĥ	–	–	–	–	Ħ	ħ	–	–	İ	ı
U+1E30–1E3F	–	–	–	–	–	–	Ł	ł	–	–	–	–	–	–	–	–
U+1E40–1E4F	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1E50–1E5F	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1E60–1E6F	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1E70–1E7F	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1E80–1E8F	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1E90–1E9F	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1EA0–1EAF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1EB0–1EBF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1EC0–1ECF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1ED0–1EDF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1EE0–1EEF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+1EF0–1EFF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
General Punctuation																
U+2000–200F	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 1: Pennstander-Regular *cont.*

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+2010–201F	-	-	-	—	—	-	-	-	‘	’	,	-	“	”	”	-
U+2020–202F	†	‡	•	-	-	-	...	-	-	-	-	-	-	-	-	-
U+2030–203F	%	-	-	-	-	-	-	-	-	<	>	-	-	-	-	-
U+2040–204F	-	-	-	-	/	-	-	-	-	-	-	-	-	-	-	-

Superscripts and Subscripts

U+2070–207F	0	-	-	-	4	5	6	7	8	9	-	-	-	-	-	-
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Currency Symbols

U+20A0–20AF	-	¢	-	₣	£	-	₤	₧	-	₨	-	₪	€	₧	-	-
U+20B0–20BF	-	₯	₧	-	-	₪	-	-	-	₹	₺	-	₴	₵	-	-

Letterlike Symbols

U+2110–211F	-	-	-	-	-	Nº	-	-	-	-	-	-	-	-	-	-
U+2120–212F	-	-	™	-	-	-	-	-	-	-	-	-	-	-	-	-

Number Forms

U+2150–215F	-	-	-	-	-	-	-	-	-	-	-	½	¾	⅝	⅞	-
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Mathematical Operators

U+2200–220F	-	-	-	-	-	∅	-	-	-	-	-	-	-	-	□	-
U+2210–221F	-	-	-	-	-	/	-	-	-	•	-	-	-	-	-	-
U+2240–224F	-	-	-	-	-	-	-	-	≈	-	-	-	-	-	-	-
U+2260–226F	≠	-	-	-	≤	≥	-	-	-	-	-	-	-	-	-	-

Geometric Shapes

U+25C0–25CF	-	-	-	-	-	-	-	-	-	-	◊	-	-	-	-	-
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Miscellaneous Shapes

U+2660–266F	♠	♥	♦	♣	♠	♥	♦	♣	-	♪	♪	♪	♪	-	-	-
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Alphabetic Presentation Forms

U+FB00–FB0F	-	fi	fl	-	-	-	-	-	-	-	-	-	-	-	-	-
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Total number of glyphs shown from Pennstander-Regular: 671

4.2 Math version

Table 2: PennstanderMath-Regular

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Basic Latin																
U+0000–000F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U+0020–002F		!	"	#	-	%	&	'	()	*	+	,	-	.	/
U+0030–003F	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
U+0040–004F	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
U+0050–005F	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
U+0060–006F	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
U+0070–007F	p	q	r	s	t	u	v	w	x	y	z	{		}	~	-
Latin-1 Supplement																
U+00A0–00AF		ı	-	-	-	-	ı	§	¨	©	ª	«	¬	-	®	-
U+00B0–00BF	°	±	²	³	´	µ	¶	·	¸	¹	º	»	-	-	-	¿
U+00D0–00DF	-	-	-	-	-	-	-	×	-	-	-	-	-	-	-	-
U+00F0–00FF	ð	-	-	-	-	-	-	÷	-	-	-	-	-	-	-	-
Latin Extended-A																
U+0130–013F	-	ı	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin Extended-B																
U+0180–018F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ə
U+0190–019F	-	-	f	-	-	-	-	-	-	-	-	-	-	-	-	-
U+0230–023F	-	-	-	-	-	-	-	J	-	-	-	-	-	-	-	-
IPA Extensions																
U+0250–025F	-	-	-	-	-	-	-	-	-	ə	-	-	-	-	-	-
Spacing Modifier Letters																
U+02B0–02BF	-	-	-	-	-	-	-	-	-	-	-	-	,	-	-	-
U+02C0–02CF	-	-	-	-	-	-	^	˘	-	-	-	-	-	-	-	-
U+02D0–02DF	-	-	-	-	-	-	-	˘	˙	˚	-	-	˜	˝	-	-
Combining Diacritical Marks																
U+0300–030F	˘	˙	˚	˛	-	-	˘	˙	˚	˛	˜	˝	-	-	-	˜
U+0310–031F	˜	˝	˛	-	-	-	-	-	-	-	-	-	-	-	-	-
U+0320–032F	-	-	-	˙	˚	-	˙	˚	˛	-	-	-	-	-	-	-
U+0330–033F	-	-	-	-	-	-	/	/	-	-	-	-	-	-	-	-
U+0340–034F	-	-	-	-	-	-	-	-	-	-	-	-	-	↔	-	-

Table 2: PennstanderMath-Regular cont.

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Greek and Coptic																
U+0390–039F	–	Α	Β	Γ	Δ	Ε	Ζ	Η	Θ	Ι	Κ	Λ	Μ	Ν	Ξ	Ο
U+03A0–03AF	Π	Ρ	–	Σ	Τ	Υ	Φ	Χ	Ψ	Ω	–	–	–	–	–	–
U+03B0–03BF	–	α	β	γ	δ	ε	ζ	η	θ	ι	κ	λ	μ	ν	ξ	ο
U+03C0–03CF	π	ρ	ς	σ	τ	υ	φ	χ	ψ	ω	–	–	–	–	–	–
U+03D0–03DF	–	ϑ	–	–	–	ϕ	ϗ	–	–	–	–	–	–	–	–	–
U+03F0–03FF	κ	ϣ	–	–	Θ	ε	ε	–	–	–	–	–	–	–	–	–
Phonetic Extensions Supplement																
U+1DA0–1DAF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
General Punctuation																
U+2000–200F	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+2010–201F	–	–	–	–	–	–		=	‘	’	,	–	“	”	„	–
U+2020–202F	†	‡	•	–	–	–	…	–	–	–	–	–	–	–	–	–
U+2030–203F	%	–	¡	¨		¡	¨		–	<	>	–	–	–	–	–
U+2040–204F	–	–	–	–	/	–	–	–	–	–	–	–	–	–	–	–
U+2050–205F	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–
Superscripts and Subscripts																
U+2070–207F	0	–	–	–	4	5	6	7	8	9	–	–	–	–	–	–
Combining Diacritical Marks for Symbols																
U+20D0–20DF	←	→	–	–	–	–	←	→	–	–	–	…	…	–	–	–
U+20E0–20EF	–	↔	–	–	–	–	–	–	–	–	–	–	→	←	←	→
U+20F0–20FF	*	–	–	–	–	–	–	–	–	–	–	–	→	←	←	→
Letterlike Symbols																
U+2100–210F	–	–	℄	–	–	–	–	–	–	–	–	ℋ	ℌ	ℍ	ℎ	ℏ
U+2110–211F	ℐ	ℑ	ℒ	ℓ	–	ℕ	№	–	–	ℙ	ℚ	ℛ	ℜ	ℝ	–	–
U+2120–212F	–	–	™	–	ℤ	–	–	ℙ	ℑ	–	–	ℙ	ℑ	ℑ	–	–
U+2130–213F	ℰ	ℱ	–	ℳ	–	–	–	–	–	–	–	–	–	–	ℑ	ℑ
U+2140–214F	Σ	–	–	–	–	ℙ	–	–	–	–	–	–	–	–	–	–
Arrows																
U+2190–219F	←	↑	→	↓	↔	↕	↗	↘	↙	↖	↔	↔	–	–	↔	↑
U+21A0–21AF	⇒	↓	←	→	←	↑	→	↓	↓	↔	↔	↔	↔	–	↔	–
U+21B0–21BF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U+21C0–21CF	→	→	↓	↓	↔	↕	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
U+21D0–21DF	↔	↑	⇒	↓	↔	↓	↔	↔	↔	↔	–	–	–	–	–	–
U+21E0–21EF	↔	↑	⇒	↓	↔	↓	↔	↔	↔	↔	–	–	–	–	–	–

Table 2: PennstanderMath-Regular cont.

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+21F0–21FF	-	-	-	-	-	↕	-	↶	↷	↔	↠	↡	↢	-	-	-
Mathematical Operators																
U+2200–220F	∀	∃	∅	∅	∅	∅	-	∇	∈	∉	-	∋	∅	-	□	∏
U+2210–221F	∏	∑	-	∓	±	/	\	*	∘	⋅	√	∛	∜	α	∞	ℓ
U+2220–222F	∠	⋈	⋈		⋈		‖	∧	∨	∩	∪	∫	∫	∫	∫	∫
U+2230–223F	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+2240–224F	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+2250–225F	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+2260–226F	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+2270–227F	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+2280–228F	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+2290–229F	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+22A0–22AF	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+22B0–22BF	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+22C0–22CF	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+22D0–22DF	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+22E0–22EF	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+22F0–22FF	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
Miscellaneous Technical																
U+2300–230F	-	-	-	-	-	∞	∞	-	[]	[]	-	-	-	-
U+2310–231F	∫	-	-	-	-	-	-	-	∫	-	-	∫	∫	∫	∫	∫
U+2320–232F	∫	∫	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U+23A0–23AF	-	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫	∫
U+23B0–23BF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U+23D0–23DF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geometric Shapes																
U+25A0–25AF	-	□	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U+25C0–25CF	-	-	-	-	-	-	-	-	-	-	◇	-	-	-	-	-
Miscellaneous Shapes																
U+2660–266F	♠	♥	♦	♣	♠	♥	♦	♣	-	♠	♥	♣	♣	b	h	#
Dingbats																
U+2710–271F	-	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous Mathematical Symbols-A																
U+27C0–27CF	-	-	⊥	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2: PennstanderMath-Regular cont.

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+27D0–27DF	-	-	-	-	-	-	-	-	⊥	⊤	-	-	-	-	-	-
U+27E0–27EF	-	-	-	-	-	-	[]	<	>	«	»	-	-	()
Supplemental Arrows-A																
U+27F0–27FF	-	-	-	-	-	↔	→	↔	↔	⇒	⇔	↔	↔	↔	↔	-
Supplemental Arrows-B																
U+2900–290F	-	-	-	-	-	-	⇐	⇒	-	-	-	-	-	-	-	-
U+2920–292F	-	-	-	↖	↗	↘	↙	-	-	-	-	-	-	-	-	-
Miscellaneous Mathematical Symbols-B																
U+2980–298F		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U+29B0–29BF	-	-	-	-	-	⊖	⓪	Ⓜ	Ⓝ	Ⓟ	Ⓡ	Ⓢ	Ⓣ	Ⓥ	Ⓦ	Ⓧ
U+29C0–29CF	Ⓨ	Ⓩ	-	-	Ⓜ	Ⓝ	Ⓟ	Ⓡ	Ⓢ	Ⓣ	-	-	-	-	-	-
U+29E0–29EF	-	-	Ⓦ	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplemental Mathematical Operators																
U+2A00–2A0F	⊙	⊕	⊗	⊔	⊕	∏	∏	-	-	×	∑	-	∫	∫	-	∫
U+2A10–2A1F	-	ℱ	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U+2A20–2A2F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	×
U+2A30–2A3F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	∥
U+2A70–2A7F	-	-	-	-	≡	≡	≡	-	-	-	-	-	-	≤	≥	-
U+2A80–2A8F	-	-	-	-	≈	≈	-	-	≈	≈	-	-	-	-	-	-
U+2A90–2A9F	-	-	-	-	≠	≠	-	-	-	-	-	-	-	-	-	-
U+2AD0–2ADF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	†	‡
U+2AE0–2AEF	±	-	-	-	-	-	-	-	-	-	π	-	-	-	-	-
Private Use Area																
U+E000–E00F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U+E110–E11F	Δ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Total number of glyphs shown from PennstanderMath-Regular: 748

5 Alphabets

5.1 Text version

– Normal/**Bold**/*Italic*/**BoldItalic**/*Slanted*/**BoldSlanted**:

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

Slanted version are FakeSlanted with 0.19 coefficient.

5.2 Math version

– Normal/**Bold**/*Italic*/**BoldItalic**:

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

– cal / frak / bb :

abcdefghijklmnopqrstuvwxyzABCDEFGH \mathcal{I} JKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz \mathfrak{A} \mathfrak{B} \mathfrak{C} \mathfrak{D} \mathfrak{E} \mathfrak{F} \mathfrak{G} \mathfrak{H} \mathfrak{I} \mathfrak{J} LMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789