

# Minion2 (zmn) as an add-on to the New TX font package

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April 12, 2024

## 1 Preliminaries

This is an update of the now non-functional `minion2newtx` from 2012. The package `newtxmath` (versions 1.626 and higher) with option `minion` makes available MinionPro letters (Latin and Greek) within as math alphabets within the math fonts, with a modified math italic  $v$  ( $v$ ) that is distinct from  $\nu$  ( $\nu$ ). There is also a matching  $w$ .

- You must use a recent version (2.0 or higher) of MinionPro, such as the version that comes with recent versions of Adobe Reader. As of this writing, version 2.112 is provided. In the version for Mac OS, these fonts are provided in the application file itself, which is, in reality, a folder. The path to the font folder is

`"/Applications/Adobe Acrobat Reader DC.app/Contents/Resources/Resource/Font"`

- You might also be interested in MyriadPro from the same source. Sample: MyriadPro is a sans serif font that is an excellent partner to MinionPro.

### 1.1 How to install your MinionPro fonts for $\LaTeX$

The production of MinionPro support files for  $\LaTeX$  is handled by the FontPro package by Sebastian Schubert, available from:

<https://github.com/sebschub/FontPro>

The result of your download, after expansion, should be a folder named `FontPro-Master` containing at its top level a file `README.md` with processing instructions. For almost all  $\LaTeX$  users, the default options will suffice, in which case the following steps will work:

- Make a new folder `otf` at the top level of `FontPro-Master`.
- Copy the MinionPro `otf` files into that `otf` folder.
- Start a new Terminal window and `cd` into `FontPro-Master`.
- Type in the command

```
./scripts/makeall MinionPro
```

Watch for messages that may appear immediately following this command. If you see

```
No matching glyph list found
```

then, after processing is complete, run the following. (The first line below should be exactly as specified in the error message, beginning with "scripts/generate-glyph-list.sh >".)

```
scripts/generate-glyph-list.sh >...  
./scripts/clean  
./scripts/makeall MinionPro
```

- Assuming no errors following the last commands, install the MinionPro in texmf-local with the command

```
./scripts/install
```

which will return a permission error if your texmf-local is owned by root, in which case you will need to use instead

```
sudo ./scripts/install
```

which will require you to enter administrator password.

You need to enable the map files MinionPro.map and zmn.map using the appropriate version of updmap for your setup. See the README for details. You may wish to make a similar package to support MyriadPro, a sans serif font family located in the same folder as MinionPro.

EXAMPLE:

```
\usepackage[osf,onlytext]{MinionPro}% use osf in text, lining figures in math  
\usepackage{MyriadPro} % or another sans serif font  
\usepackage[T1]{fontenc}  
\usepackage[scaled=0.85]{beramono} or another mono font  
\usepackage{amsthm}  
\usepackage[minion,vvarbb]{newtxmath}  
\usepackage{bm}
```

SAMPLE OUTPUT:

The typeset math below follows the ISO recommendations that only variables be set in italic. Note the use of upright shapes for  $d$ ,  $e$  and  $\pi$ . (The first two are entered as  $\mathrm{d}$  and  $\mathrm{e}$ , and in fonts derived from newtxmath or mtpro2, the last is entered as  $\uppi$ .)

**Simplest form of the *Central Limit Theorem*:** Let  $X_1, X_2, \dots$  be a sequence of iid random variables with mean 0 and variance 1 on a probability space  $(\Omega, \mathcal{F}, \mathbb{P})$ . Then

$$\mathbb{P}\left(\frac{X_1 + \dots + X_n}{\sqrt{n}} \leq y\right) \rightarrow \mathfrak{R}(y) := \int_{-\infty}^y \frac{e^{-t^2/2}}{\sqrt{2\pi}} dt \quad \text{as } n \rightarrow \infty,$$

or, equivalently, letting  $S_n := \sum_1^n X_k$ ,

$$\mathbb{E}f(S_n/\sqrt{n}) \rightarrow \int_{-\infty}^{\infty} f(t) \frac{e^{-t^2/2}}{\sqrt{2\pi}} dt \quad \text{as } n \rightarrow \infty, \text{ for every } f \in \text{bC}(\mathbb{R}).$$

# Math Letters znmim . t fm

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	$\Gamma_0$	$\Delta_1$	$\Theta_2$	$\Lambda_3$	$\Xi_4$	$\Pi_5$	$\Sigma_6$	$\Upsilon_7$	"0x
´01x	$\Phi_8$	$\Psi_9$	$\Omega_{10}$	$\alpha_{11}$	$\beta_{12}$	$\gamma_{13}$	$\delta_{14}$	$\epsilon_{15}$	
´02x	$\zeta_{16}$	$\eta_{17}$	$\theta_{18}$	$l_{19}$	$\kappa_{20}$	$\lambda_{21}$	$\mu_{22}$	$\nu_{23}$	"1x
´03x	$\xi_{24}$	$\pi_{25}$	$\rho_{26}$	$\sigma_{27}$	$\tau_{28}$	$\upsilon_{29}$	$\phi_{30}$	$\chi_{31}$	
´04x	$\psi_{32}$	$\omega_{33}$	$\epsilon_{34}$	$\vartheta_{35}$	$\omega_{36}$	$\varrho_{37}$	$\varsigma_{38}$	$\varphi_{39}$	"2x
´05x	$\leftarrow_{40}$	$\longleftarrow_{41}$	$\rightarrow_{42}$	$\longrightarrow_{43}$	$\curvearrowright_{44}$	$\curvearrowleft_{45}$	$\triangleright_{46}$	$\triangleleft_{47}$	
´06x	$0_{48}$	$1_{49}$	$2_{50}$	$3_{51}$	$4_{52}$	$5_{53}$	$6_{54}$	$7_{55}$	"3x
´07x	$8_{56}$	$9_{57}$	$._{58}$	$_{59}$	$<_{60}$	$/_{61}$	$>_{62}$	$\star_{63}$	
´10x	$\partial_{64}$	$A_{65}$	$B_{66}$	$C_{67}$	$D_{68}$	$E_{69}$	$F_{70}$	$G_{71}$	"4x
´11x	$H_{72}$	$I_{73}$	$J_{74}$	$K_{75}$	$L_{76}$	$M_{77}$	$N_{78}$	$O_{79}$	
´12x	$P_{80}$	$Q_{81}$	$R_{82}$	$S_{83}$	$T_{84}$	$U_{85}$	$V_{86}$	$W_{87}$	"5x
´13x	$X_{88}$	$Y_{89}$	$Z_{90}$	$b_{91}$	$\natural_{92}$	$\sharp_{93}$	$\smile_{94}$	$\frown_{95}$	
´14x	$l_{96}$	$a_{97}$	$b_{98}$	$c_{99}$	$d_{100}$	$e_{101}$	$f_{102}$	$g_{103}$	"6x
´15x	$h_{104}$	$i_{105}$	$j_{106}$	$k_{107}$	$l_{108}$	$m_{109}$	$n_{110}$	$o_{111}$	
´16x	$p_{112}$	$q_{113}$	$r_{114}$	$s_{115}$	$t_{116}$	$u_{117}$	$v_{118}$	$w_{119}$	"7x
´17x	$x_{120}$	$y_{121}$	$z_{122}$	$l_{123}$	$j_{124}$	$\phi_{125}$	$\vec{\quad}_{126}$	$\widehat{\quad}_{127}$	
´20x	$\nu_{128}$	$\kappa_{129}$	$l_{130}$	$l_{131}$	$0_{132}$	$1_{133}$	$2_{134}$	$3_{135}$	"8x
´21x	$4_{136}$	$5_{137}$	$6_{138}$	$7_{139}$	$8_{140}$	$9_{141}$	$\mathcal{A}_{142}$	$\mathcal{B}_{143}$	
´22x	$\mathcal{C}_{144}$	$\mathcal{D}_{145}$	$\mathcal{E}_{146}$	$\mathcal{F}_{147}$	$\mathcal{G}_{148}$	$\mathcal{H}_{149}$	$\mathcal{I}_{150}$	$\mathcal{J}_{151}$	"9x
´23x	$\mathcal{K}_{152}$	$\mathcal{L}_{153}$	$\mathcal{M}_{154}$	$\mathcal{N}_{155}$	$\mathcal{O}_{156}$	$\mathcal{P}_{157}$	$\mathcal{Q}_{158}$	$\mathcal{R}_{159}$	
´24x	$\mathcal{S}_{160}$	$\mathcal{T}_{161}$	$\mathcal{U}_{162}$	$\mathcal{V}_{163}$	$\mathcal{W}_{164}$	$\mathcal{X}_{165}$	$\mathcal{Y}_{166}$	$\mathcal{Z}_{167}$	"Ax
´25x	$a_{168}$	$b_{169}$	$c_{170}$	$d_{171}$	$e_{172}$	$f_{173}$	$g_{174}$	$h_{175}$	
´26x	$i_{176}$	$j_{177}$	$k_{178}$	$l_{179}$	$m_{180}$	$n_{181}$	$o_{182}$	$p_{183}$	"Bx
´27x	$q_{184}$	$r_{185}$	$s_{186}$	$t_{187}$	$u_{188}$	$v_{189}$	$w_{190}$	$x_{191}$	
´30x	$y_{192}$	$z_{193}$	$l_{194}$	$l_{195}$	$\mathcal{A}_{196}$	$\mathcal{B}_{197}$	$\mathcal{C}_{198}$	$\mathcal{D}_{199}$	"Cx
´31x	$\mathcal{E}_{200}$	$\mathcal{F}_{201}$	$\mathcal{G}_{202}$	$\mathcal{H}_{203}$	$\mathcal{I}_{204}$	$\mathcal{J}_{205}$	$\mathcal{K}_{206}$	$\mathcal{L}_{207}$	
´32x	$\mathcal{M}_{208}$	$\mathcal{N}_{209}$	$\mathcal{O}_{210}$	$\mathcal{P}_{211}$	$\mathcal{Q}_{212}$	$\mathcal{R}_{213}$	$\mathcal{S}_{214}$	$\mathcal{T}_{215}$	"Dx
´33x	$\mathcal{U}_{216}$	$\mathcal{V}_{217}$	$\mathcal{W}_{218}$	$\mathcal{X}_{219}$	$\mathcal{Y}_{220}$	$\mathcal{Z}_{221}$	$a_{222}$	$b_{223}$	
´34x	$c_{224}$	$d_{225}$	$e_{226}$	$f_{227}$	$g_{228}$	$h_{229}$	$i_{230}$	$j_{231}$	"Ex
´35x	$k_{232}$	$l_{233}$	$m_{234}$	$n_{235}$	$o_{236}$	$p_{237}$	$q_{238}$	$r_{239}$	
´36x	$s_{240}$	$t_{241}$	$u_{242}$	$v_{243}$	$w_{244}$	$x_{245}$	$y_{246}$	$z_{247}$	"Fx
´37x	$l_{248}$	$j_{249}$	$2_{50}$	$2_{51}$	$2_{52}$	$2_{53}$	$2_{54}$	$2_{55}$	
	"8	"9	"A	"B	"C	"D	"E	"F	

# Math LettersA zmmia.tfm

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	Γ <sub>0</sub>	Δ <sub>1</sub>	Θ <sub>2</sub>	Λ <sub>3</sub>	Ξ <sub>4</sub>	Π <sub>5</sub>	Σ <sub>6</sub>	Υ <sub>7</sub>	"0x
´01x	Φ <sub>8</sub>	Ψ <sub>9</sub>	Ω <sub>10</sub>	α <sub>11</sub>	β <sub>12</sub>	γ <sub>13</sub>	δ <sub>14</sub>	ε <sub>15</sub>	
´02x	ζ <sub>16</sub>	η <sub>17</sub>	θ <sub>18</sub>	ι <sub>19</sub>	κ <sub>20</sub>	λ <sub>21</sub>	μ <sub>22</sub>	ν <sub>23</sub>	"1x
´03x	ξ <sub>24</sub>	π <sub>25</sub>	ρ <sub>26</sub>	σ <sub>27</sub>	τ <sub>28</sub>	υ <sub>29</sub>	φ <sub>30</sub>	χ <sub>31</sub>	
´04x	ψ <sub>32</sub>	ω <sub>33</sub>	ε <sub>34</sub>	θ <sub>35</sub>	ω <sub>36</sub>	ρ <sub>37</sub>	ς <sub>38</sub>	φ <sub>39</sub>	"2x
´05x	4 <sub>0</sub>	4 <sub>1</sub>	∇ <sub>42</sub>	0 <sub>43</sub>	1 <sub>44</sub>	2 <sub>45</sub>	3 <sub>46</sub>	4 <sub>47</sub>	
´06x	5 <sub>48</sub>	6 <sub>49</sub>	7 <sub>50</sub>	8 <sub>51</sub>	9 <sub>52</sub>	5 <sub>3</sub>	Ϸ <sub>54</sub>	ϸ <sub>55</sub>	"3x
´07x	Ϸ <sub>56</sub>	ϸ <sub>57</sub>	:= <sub>58</sub>	=: <sub>59</sub>	≠ <sub>60</sub>	= <sub>61</sub>	{ <sub>62</sub>	} <sub>63</sub>	
´10x	∂ <sub>64</sub>	ℳ <sub>65</sub>	ℬ <sub>66</sub>	ℭ <sub>67</sub>	ℰ <sub>68</sub>	ℱ <sub>69</sub>	ℊ <sub>70</sub>	ℋ <sub>71</sub>	"4x
´11x	ℌ <sub>72</sub>	ℍ <sub>73</sub>	ℎ <sub>74</sub>	ℋ <sub>75</sub>	ℌ <sub>76</sub>	ℍ <sub>77</sub>	ℎ <sub>78</sub>	ℏ <sub>79</sub>	
´12x	ℙ <sub>80</sub>	ℚ <sub>81</sub>	ℛ <sub>82</sub>	ℜ <sub>83</sub>	ℤ <sub>84</sub>	ℒ <sub>85</sub>	ℙ <sub>86</sub>	ℚ <sub>87</sub>	"5x
´13x	ℒ <sub>88</sub>	ℙ <sub>89</sub>	ℚ <sub>90</sub>	ℎ <sub>91</sub>	ℏ <sub>92</sub>	ℓ <sub>93</sub>	ℤ <sub>94</sub>	Å <sub>95</sub>	
´14x	ε <sub>96</sub>	α <sub>97</sub>	β <sub>98</sub>	γ <sub>99</sub>	δ <sub>100</sub>	ε <sub>101</sub>	ƒ <sub>102</sub>	g <sub>103</sub>	"6x
´15x	h <sub>104</sub>	i <sub>105</sub>	j <sub>106</sub>	k <sub>107</sub>	l <sub>108</sub>	m <sub>109</sub>	n <sub>110</sub>	o <sub>111</sub>	
´16x	p <sub>112</sub>	q <sub>113</sub>	r <sub>114</sub>	s <sub>115</sub>	t <sub>116</sub>	u <sub>117</sub>	v <sub>118</sub>	w <sub>119</sub>	"7x
´17x	x <sub>120</sub>	η <sub>121</sub>	ζ <sub>122</sub>	ι <sub>123</sub>	1 <sub>124</sub>	h <sub>125</sub>	j <sub>126</sub>	î <sub>127</sub>	
´20x	v <sub>128</sub>	κ <sub>129</sub>	1 <sub>30</sub>	1 <sub>31</sub>	A <sub>132</sub>	B <sub>133</sub>	C <sub>134</sub>	D <sub>135</sub>	"8x
´21x	E <sub>136</sub>	F <sub>137</sub>	G <sub>138</sub>	H <sub>139</sub>	I <sub>140</sub>	J <sub>141</sub>	K <sub>142</sub>	L <sub>143</sub>	
´22x	M <sub>144</sub>	N <sub>145</sub>	O <sub>146</sub>	P <sub>147</sub>	Q <sub>148</sub>	R <sub>149</sub>	S <sub>150</sub>	T <sub>151</sub>	"9x
´23x	U <sub>152</sub>	V <sub>153</sub>	W <sub>154</sub>	X <sub>155</sub>	Y <sub>156</sub>	Z <sub>157</sub>	158	159	
´24x	160	161	162	163	164	165	166	167	"Ax
´25x	k <sub>168</sub>	169	170	171	172	173	174	175	
´26x	176	177	178	179	180	181	182	183	"Bx
´27x	184	185	186	187	g <sub>188</sub>	y <sub>189</sub>	u <sub>190</sub>	w <sub>191</sub>	
´30x	192	A <sub>193</sub>	B <sub>194</sub>	C <sub>195</sub>	D <sub>196</sub>	E <sub>197</sub>	F <sub>198</sub>	G <sub>199</sub>	"Cx
´31x	H <sub>200</sub>	I <sub>201</sub>	J <sub>202</sub>	K <sub>203</sub>	L <sub>204</sub>	M <sub>205</sub>	N <sub>206</sub>	O <sub>207</sub>	
´32x	P <sub>208</sub>	Q <sub>209</sub>	R <sub>210</sub>	S <sub>211</sub>	T <sub>212</sub>	U <sub>213</sub>	V <sub>214</sub>	W <sub>215</sub>	"Dx
´33x	X <sub>216</sub>	Y <sub>217</sub>	Z <sub>218</sub>	219	220	221	222	223	
´34x	224	a <sub>225</sub>	b <sub>226</sub>	c <sub>227</sub>	d <sub>228</sub>	e <sub>229</sub>	f <sub>230</sub>	g <sub>231</sub>	"Ex
´35x	h <sub>232</sub>	i <sub>233</sub>	j <sub>234</sub>	k <sub>235</sub>	l <sub>236</sub>	m <sub>237</sub>	n <sub>238</sub>	o <sub>239</sub>	
´36x	p <sub>240</sub>	q <sub>241</sub>	r <sub>242</sub>	s <sub>243</sub>	t <sub>244</sub>	u <sub>245</sub>	v <sub>246</sub>	w <sub>247</sub>	"Fx
´37x	x <sub>248</sub>	y <sub>249</sub>	z <sub>250</sub>	ℒ <sub>251</sub>	- <sub>252</sub>	´ <sub>253</sub>	- <sub>254</sub>	255	
	"8	"9	"A	"B	"C	"D	"E	"F	

It is clear that the glyphs in slots 91–94 and 251 are from Times, not MinionPro. These are placeholders which, in actual usage, are replaced by composite glyphs based on MinionPro glyphs and the glyphs in slots 252–254.