

作りましょう 0.10

パラメタ方式フォントファミリ
校とプリティプリントのソース

Tsukurimashou 0.10

Parametric Font Family
Proofs and pretty-printed
source code

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Proofs and pretty-printed source code for Tsukurimashou
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Volume XII

U+A000 to U+10FFFF

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F7

tsuku-f9.mp

F9

tsuku-ff.mp

FF

tsuku-1f1.mp

1F1

tsuku-200.mp

200

tsuku-20a.mp

20A

tsuku-21c.mp

21C

tsuku-295.mp

295

tsuku-f17.mp

F17

tsuku-ff0.mp

FF0

tsuku-ff1.mp

FF1

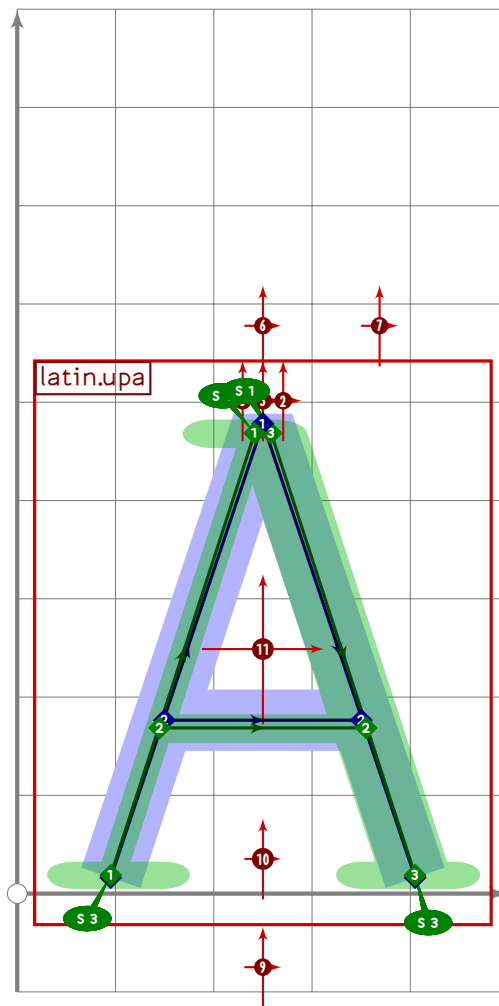
tsuku-f7.mp

F7

```
1 %
2 % Unicode page F7 (Adobe PUA) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 _____
32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input accent.mp;
39 input latin.mp;
40
41 do_late_includes;
42
43 transform tsu_xf.sc;
44
45 if is_proportional:
46   latin_wide_sc_top:=0.4[latin_wide_xheight,latin_wide_top];
47   (0,latin_wide_low_h) transformed tsu_xf.sc = (120,latin_wide_low_h);
48   (1000,latin_wide_low_h) transformed tsu_xf.sc = (880,latin_wide_low_h);
49   (0,latin_wide_top) transformed tsu_xf.sc = (120,latin_wide_sc_top);
50 else:
51   latin_wide_sc_top:=0.1[latin_wide_xheight,latin_wide_top];
52   (0,latin_wide_low_h) transformed tsu_xf.sc = (20,latin_wide_low_h);
53   (1000,latin_wide_low_h) transformed tsu_xf.sc = (980,latin_wide_low_h);
54   (0,latin_wide_top) transformed tsu_xf.sc = (20,latin_wide_sc_top);
55 fi;
56
57 _____
58
```

Latin Small Caps

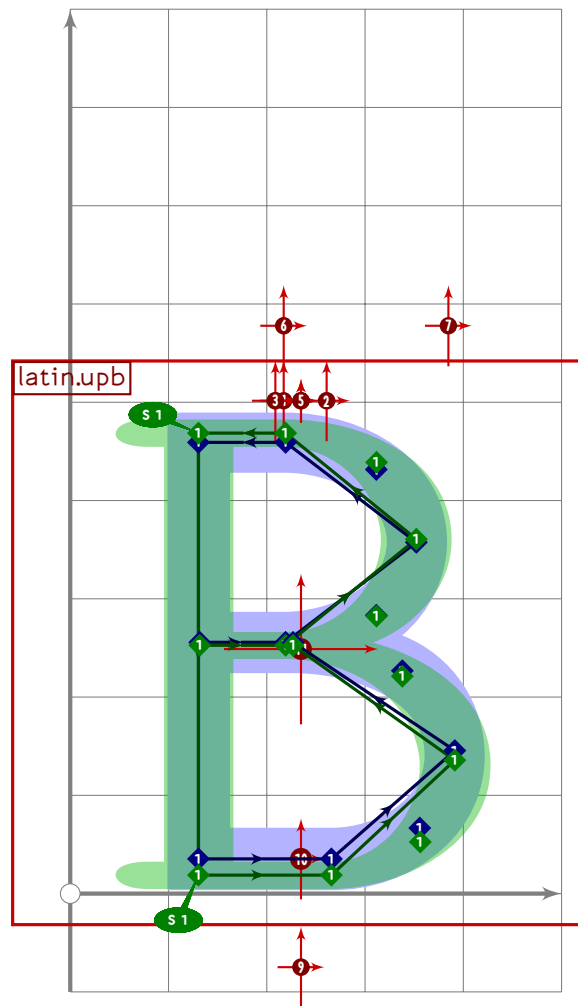
```
59 % LATIN SMALL CAPS
60
61 % WARNING changing rescale setting
62 tsu_rescale_half;
63 tsu_accent.up_default_anchors;
64
```



```

65 % A
66 begint Suglyph("a.sc";97);
67   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upa))());
68   tsu_render;
69 endsuglyph;
70

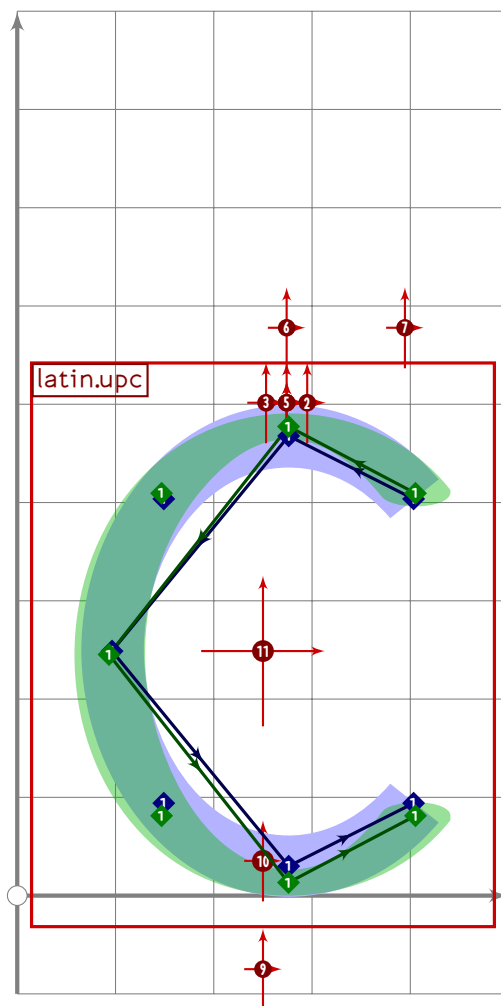
```



```

71 % B
72 begintsuglyph("b.sc";98);
73   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upb))());
74   tsu_render;
75 endtsuglyph;
76

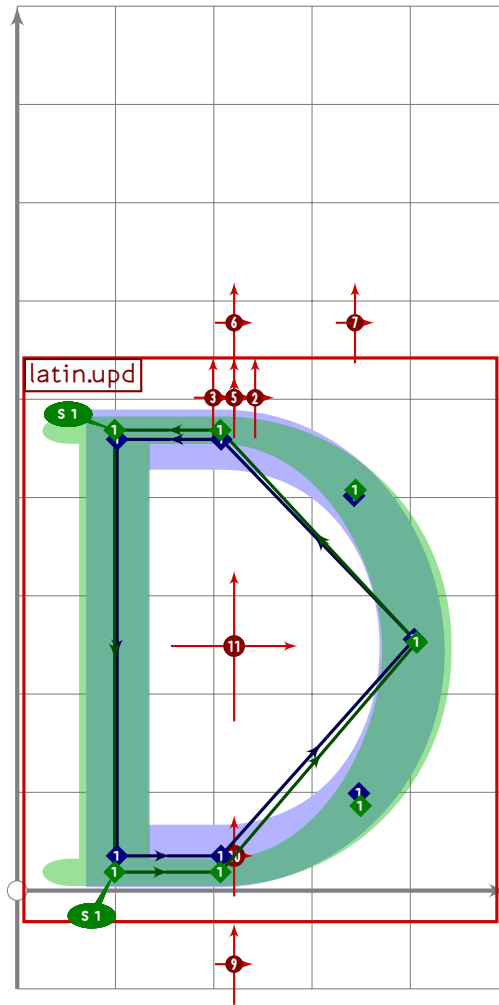
```

```

77 % C
78 begint Suglyph("c.sc";99);
79   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upc))());
80   tsu_render;
81 endtsuglyph;
82

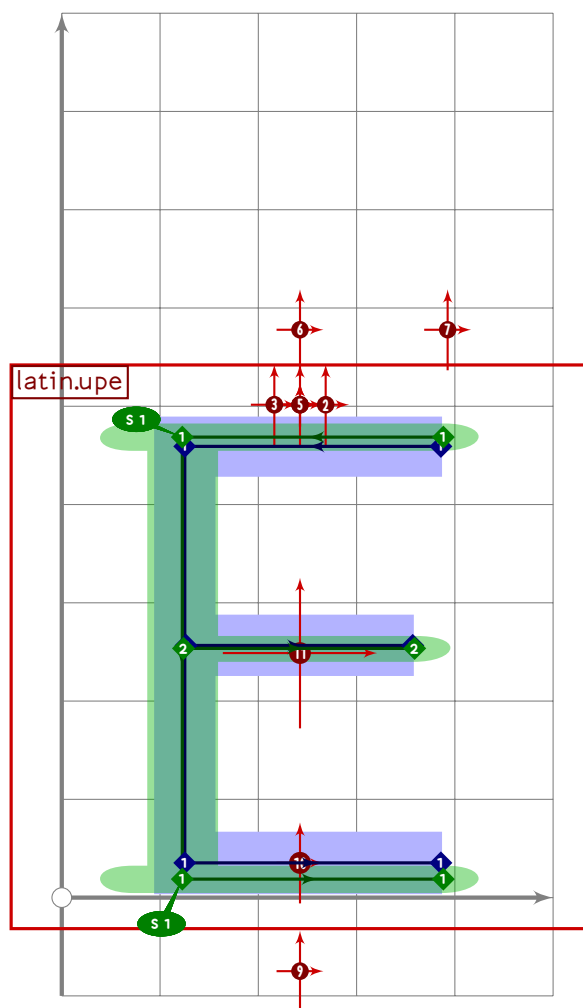
```



```

83 % D
84 begint Suglyph("d.sc";100);
85   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upd))());
86   tsu_render;
87 endtsuglyph;
88

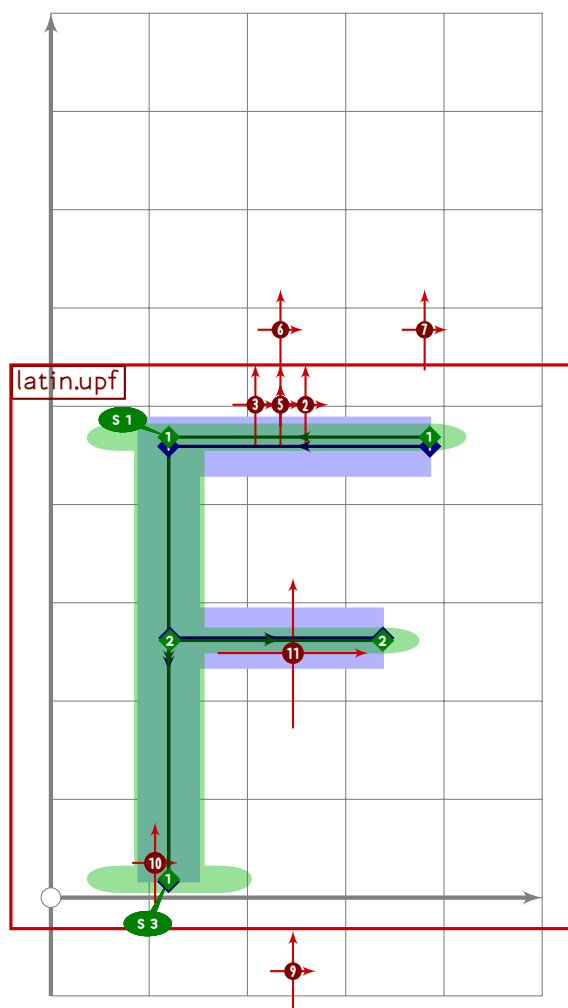
```



```

89 % E
90 begint Suglyph("e.sc",101);
91   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upe))());
92   tsu_render;
93 endtsuglyph;
94

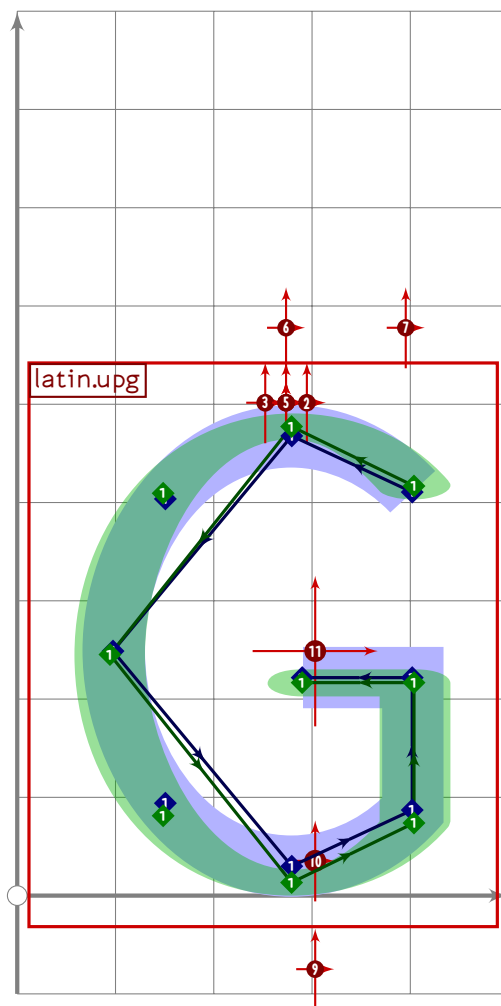
```



```

95 % F
96 begint Suglyph("f.sc",102);
97   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upf))());
98   tsu_render;
99 endtsuglyph;
100

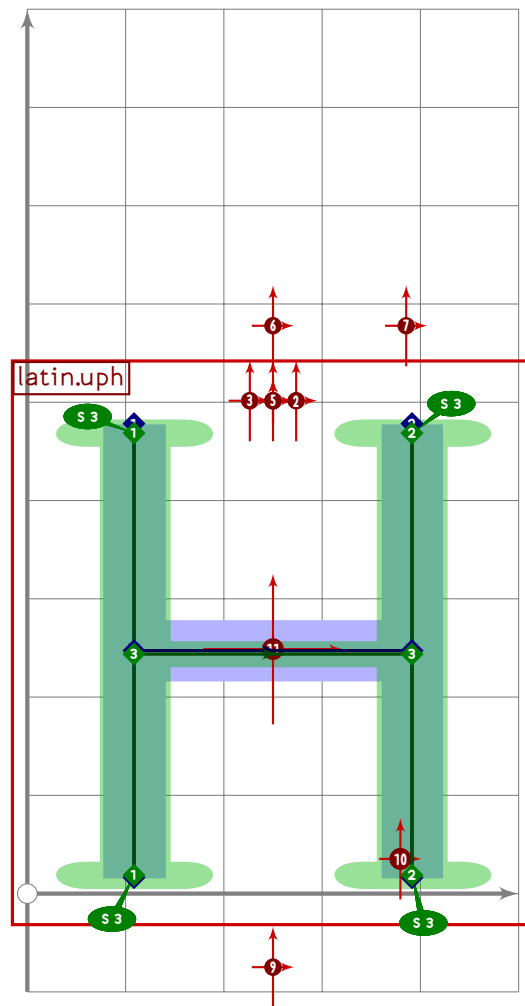
```



```

101 % G
102 begint Suglyph("g.sc";103);
103   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upg))());
104   tsu_render;
105 endtsuglyph;
106

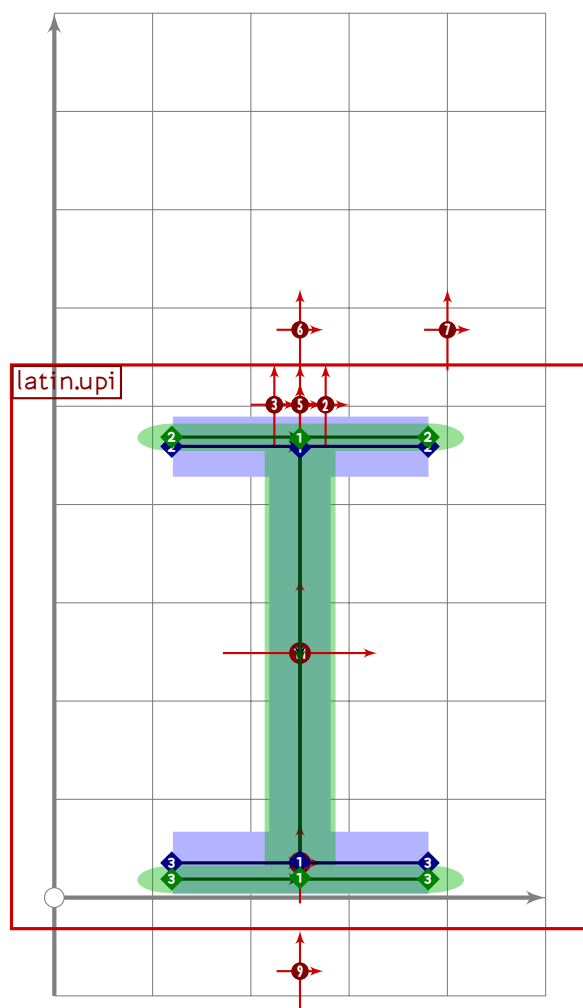
```



```

107 % H
108 begintsuglyph("h.sc";104);
109   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.uph))());
110   tsu_render;
111 endtsuglyph;
112

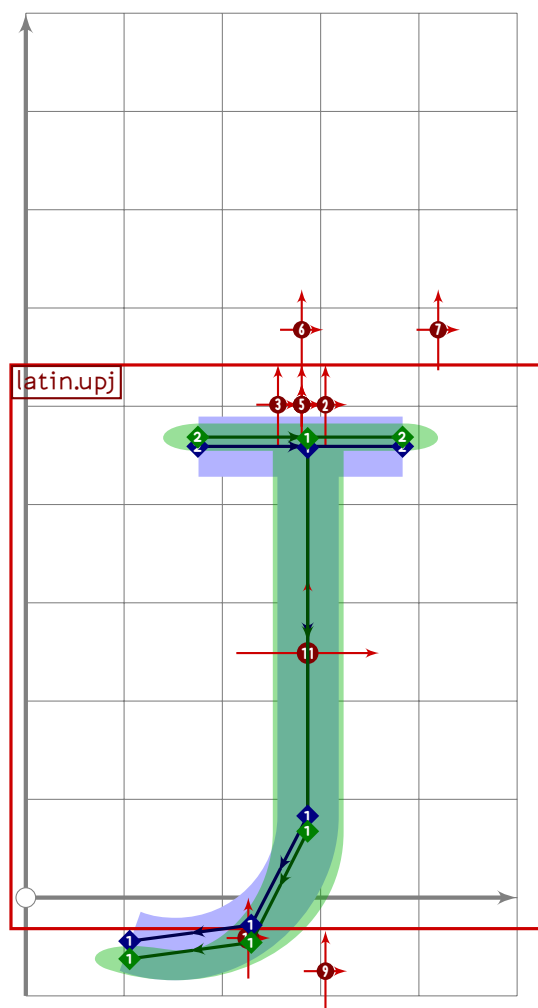
```



```

113 % I
114 begint Suglyph("i.sc",105);
115   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upi))());
116   tsu_render;
117 endtsuglyph;
118

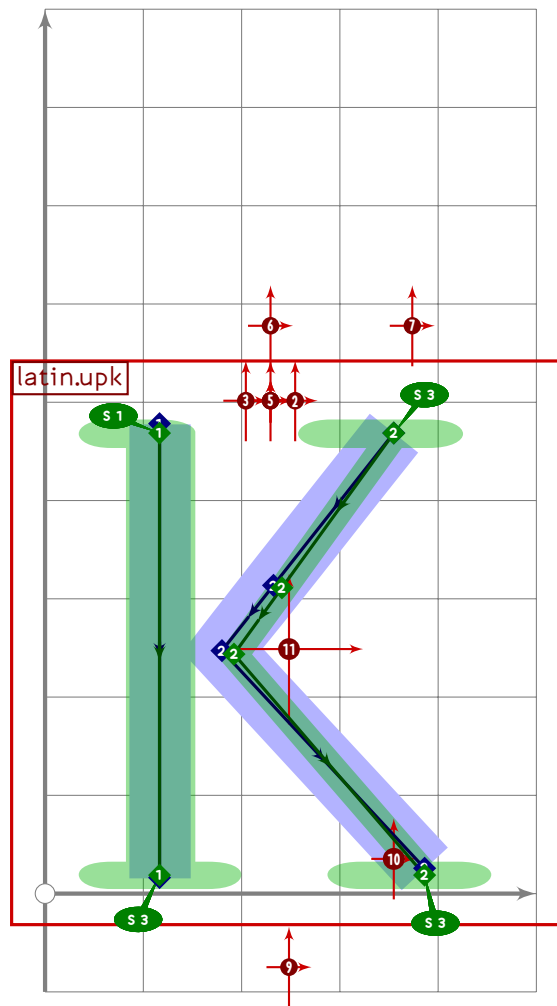
```



```

119 % J
120 begint Suglyph("j.sc",106);
121   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upj))());
122   tsu_render;
123 endtsuglyph;
124

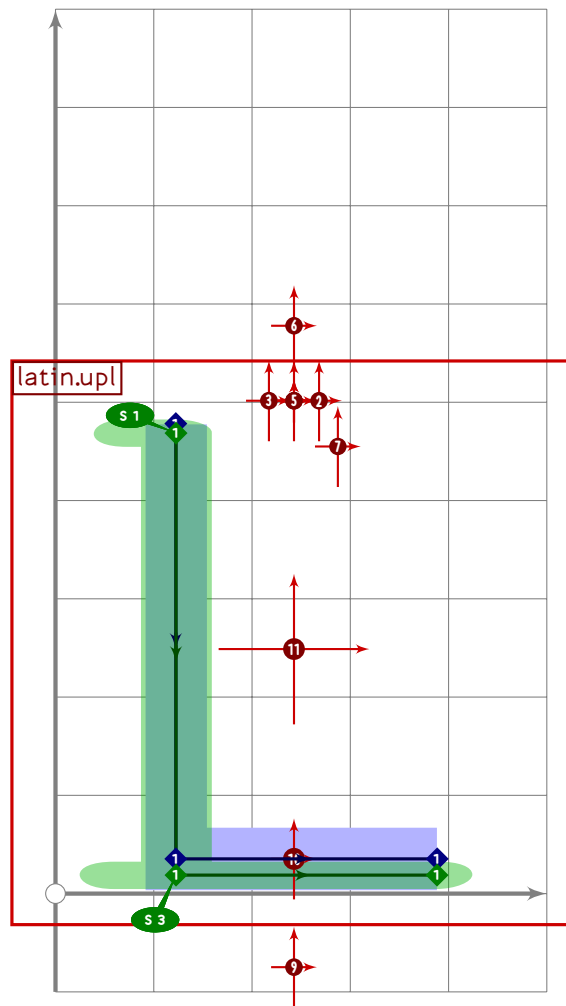
```

```

125 % K
126 begintsuglyph("k.sc";107);
127   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upk))());
128   tsu_render;
129 endsuglyph;
130

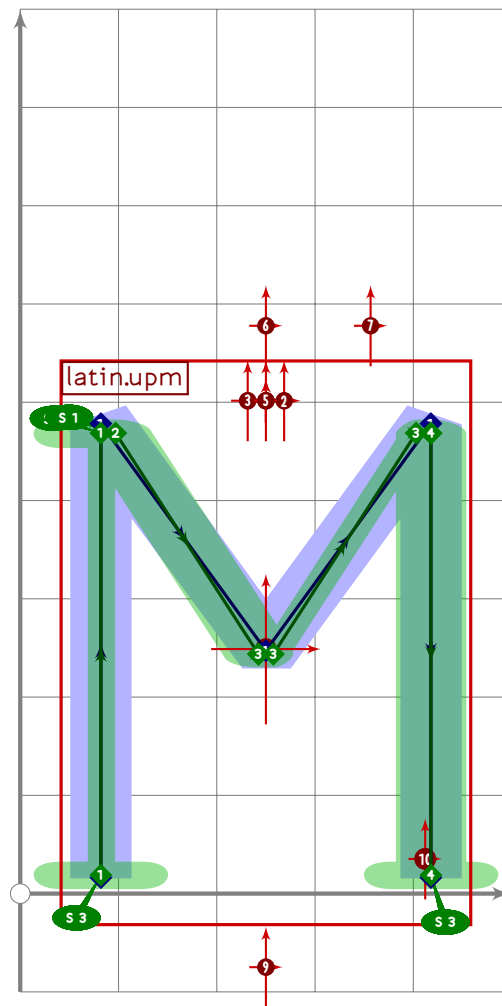
```



```

131 % L
132 begint Suglyph("l.sc",108);
133   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upl))());
134   tsu_render;
135 endtsuglyph;
136

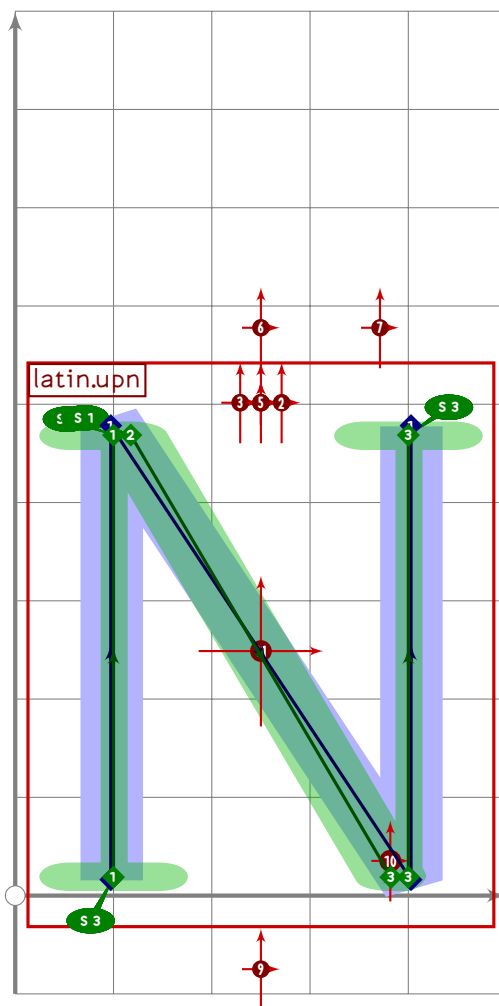
```



```

137 % M
138 begint Suglyph("m.sc",109);
139   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upm))());
140   tsu_render;
141 endtsuglyph;
142

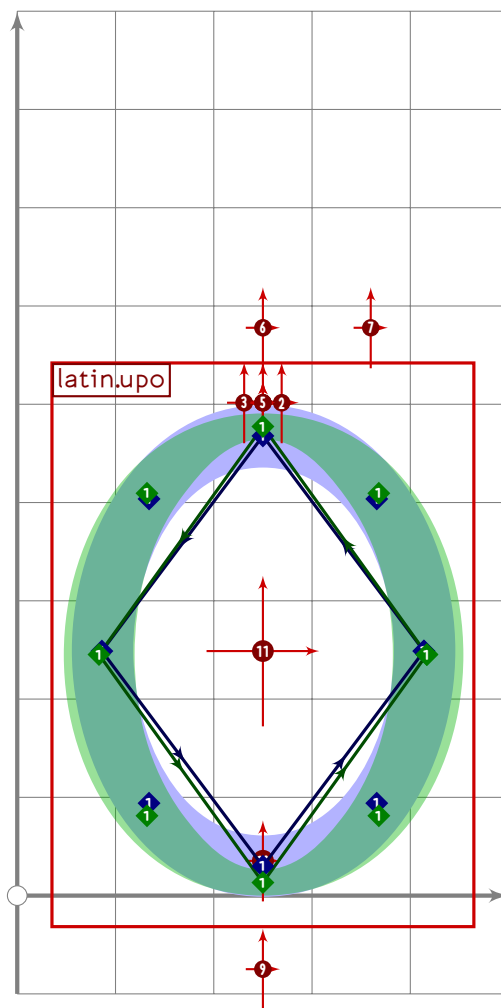
```



```

143 % N
144 begint Suglyph("n.sc";110);
145   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upn))());
146   tsu_render;
147 endtsuglyph;
148

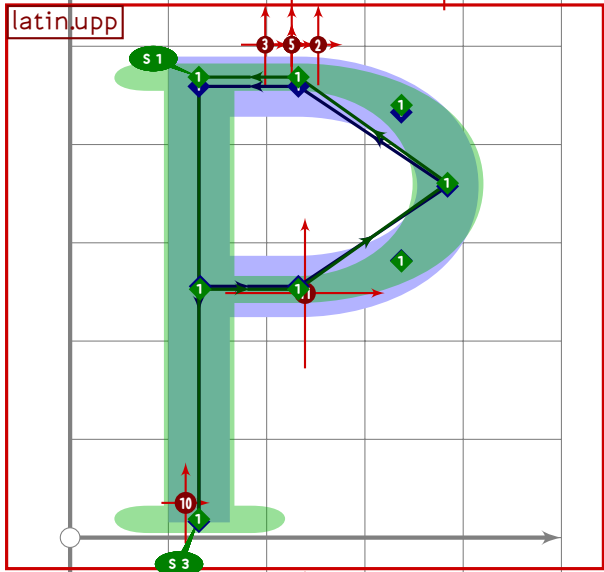
```



```

149 % ○
150 \begin{tsuglyph}("b.sc",111);
151   \tsu_xform(\tsu_xf.sc)(\tsu__accent.apply(\tsu__accent.capital(\latin.upo))());
152   \tsu_render;
153 \end{tsuglyph};
154

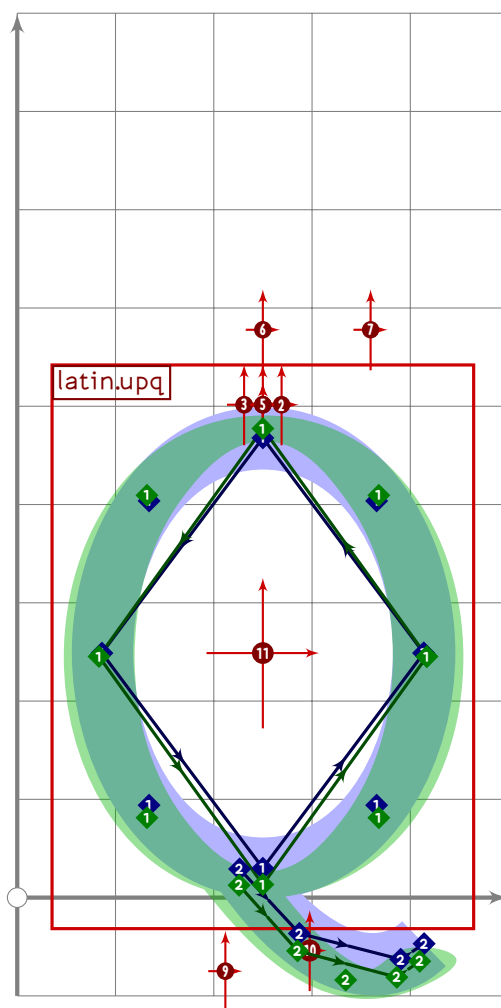
```



```

155 % P
156 begintsuglyph("p.sc;112);
157   tsu_xform(tsu_xf.sc)(tsu__accent.apply(tsu__accent.capital(latin.upp))());
158   tsu__render;
159 endtsuglyph;
160

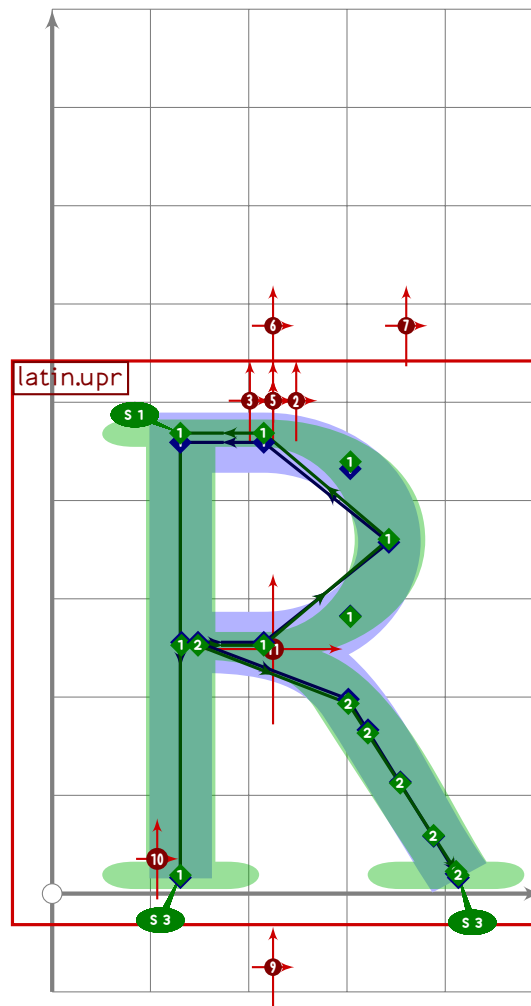
```



```

161 % Q
162 begintsuglyph("q.sc";113);
163   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upq))());
164   tsu_render;
165 endsuglyph;
166

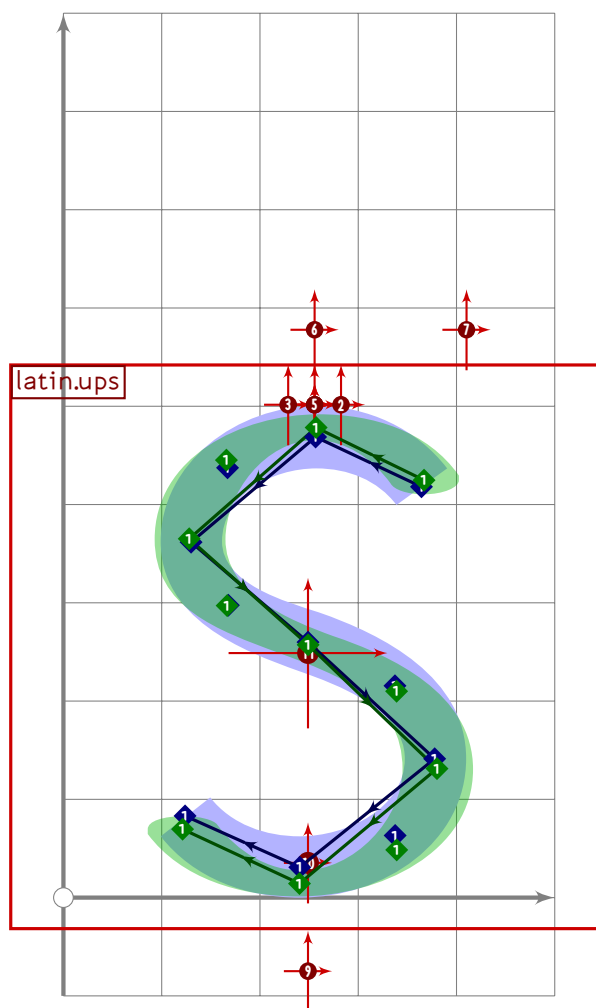
```



```

167 % R
168 begintsuglyph("r.sc",114);
169 tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upr))());
170 tsu_render;
171 endsuglyph;
172

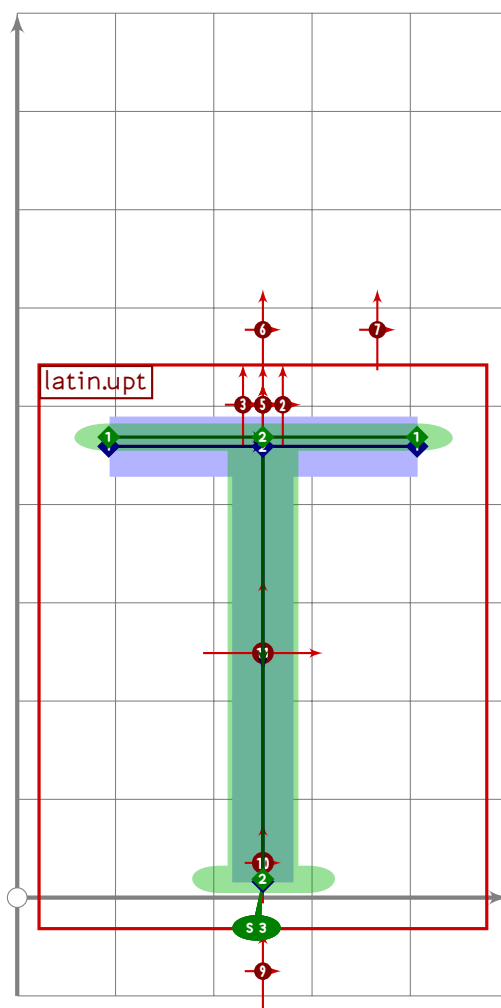
```

```

173 % S
174 begint Suglyph("s.sc",115);
175   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.ups))());
176   tsu_render;
177 endtsuglyph;
178

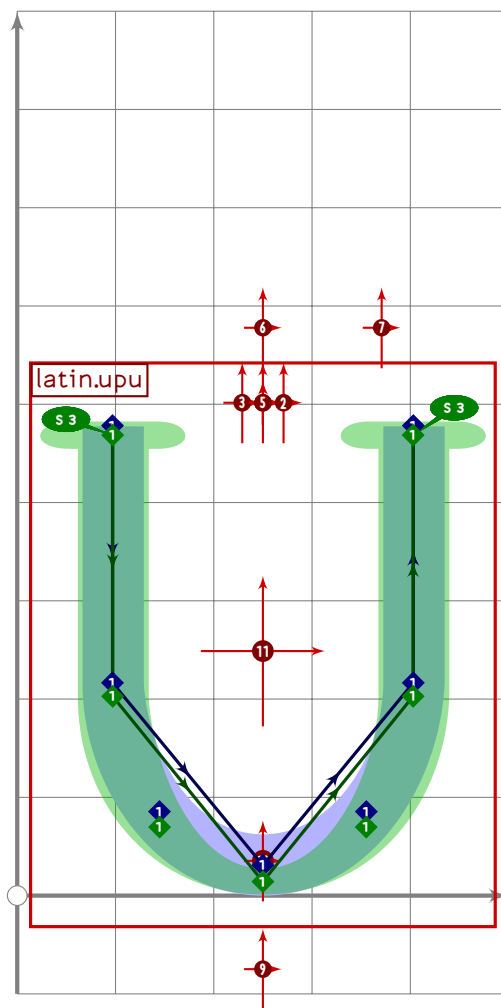
```



```

179 % T
180 begintsuglyph("t.sc",116);
181   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upt))());
182   tsu_render;
183 endsuglyph;
184

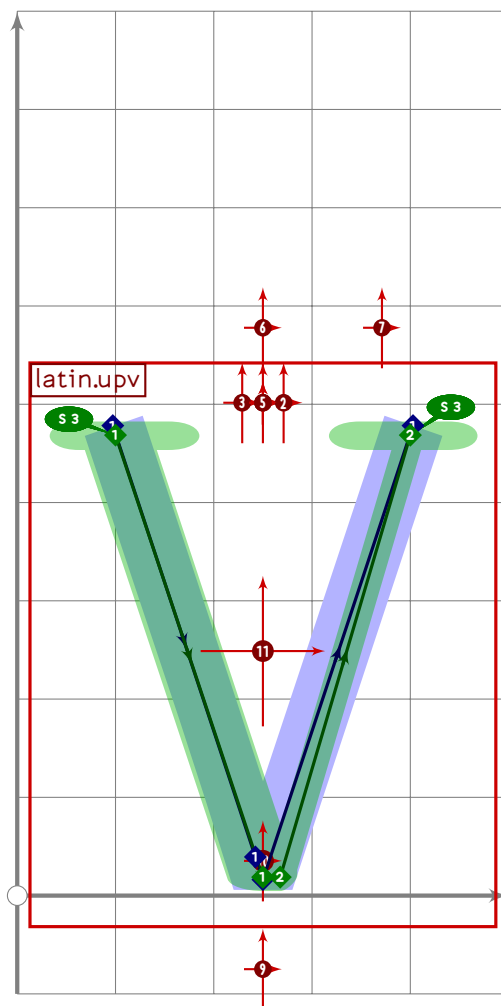
```



```

185 % U
186 begintuglyph("u.sc";117);
187   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upu))());
188   tsu_render;
189 endtuglyph;
190

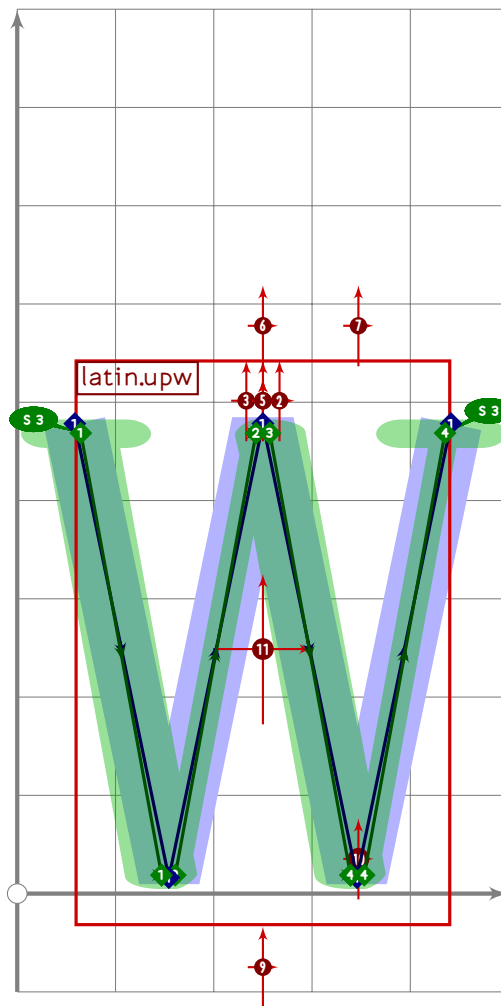
```



```

191 % V
192 begint Suglyph("v.sc",118);
193   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upv))());
194   tsu_render;
195 endtsuglyph;
196

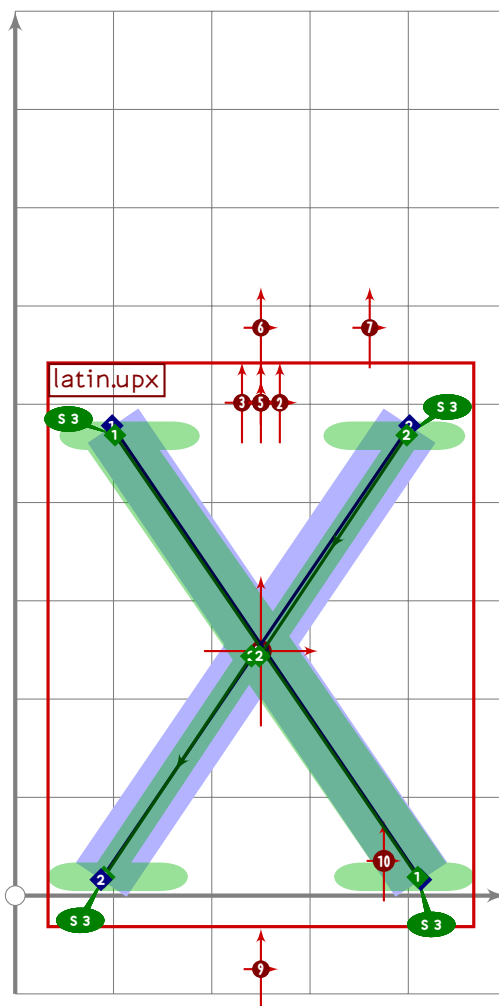
```



```

197 % W
198 begint Suglyph("w.sc";119);
199   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upw))());
200   tsu_render;
201 endtsuglyph;
202

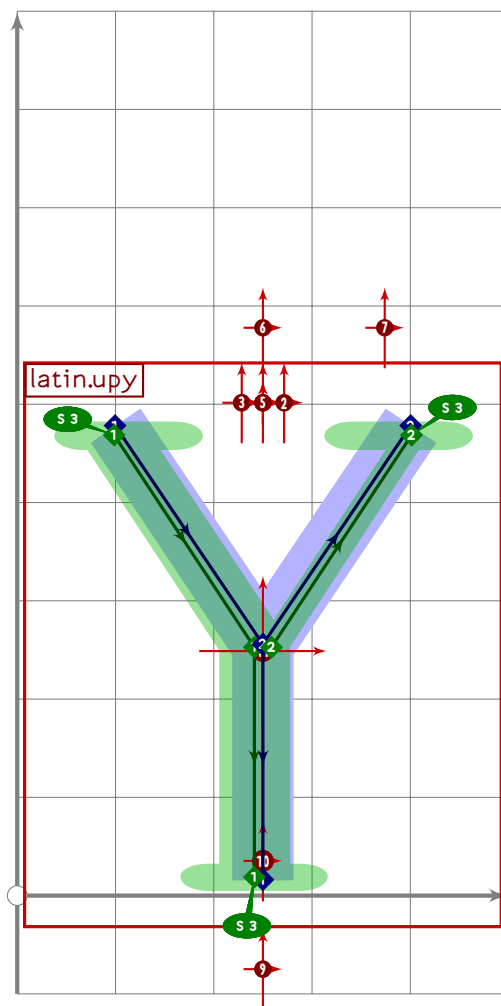
```



```

203 % X
204 begint Suglyph("x.sc";120);
205   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upx))());
206   tsu_render;
207 endtsuglyph;
208

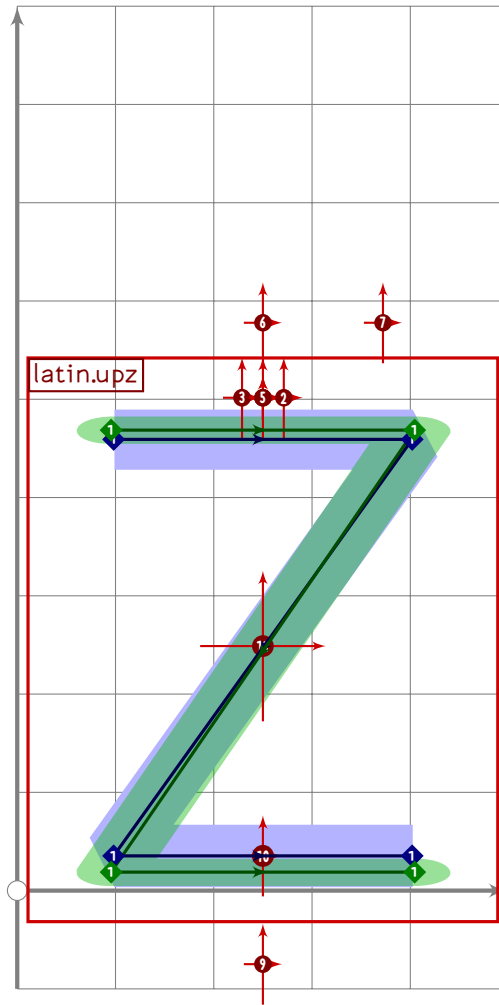
```



```

209 % Y
210 begint Suglyph("y.sc";121);
211   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upy))());
212   tsu_render;
213 endtsuglyph;
214

```



```

215 % Z
216 begintsuglyph("z.sc";122);
217   tsu_xform(tsu_xf.sc)(tsu_accent.apply(tsu_accent.capital(latin.upz))());
218   tsu_render;
219 endsuglyph;
220
221 _____
222
223 endfont;
224
225 _____

```


tsuku-f9.mp

F9

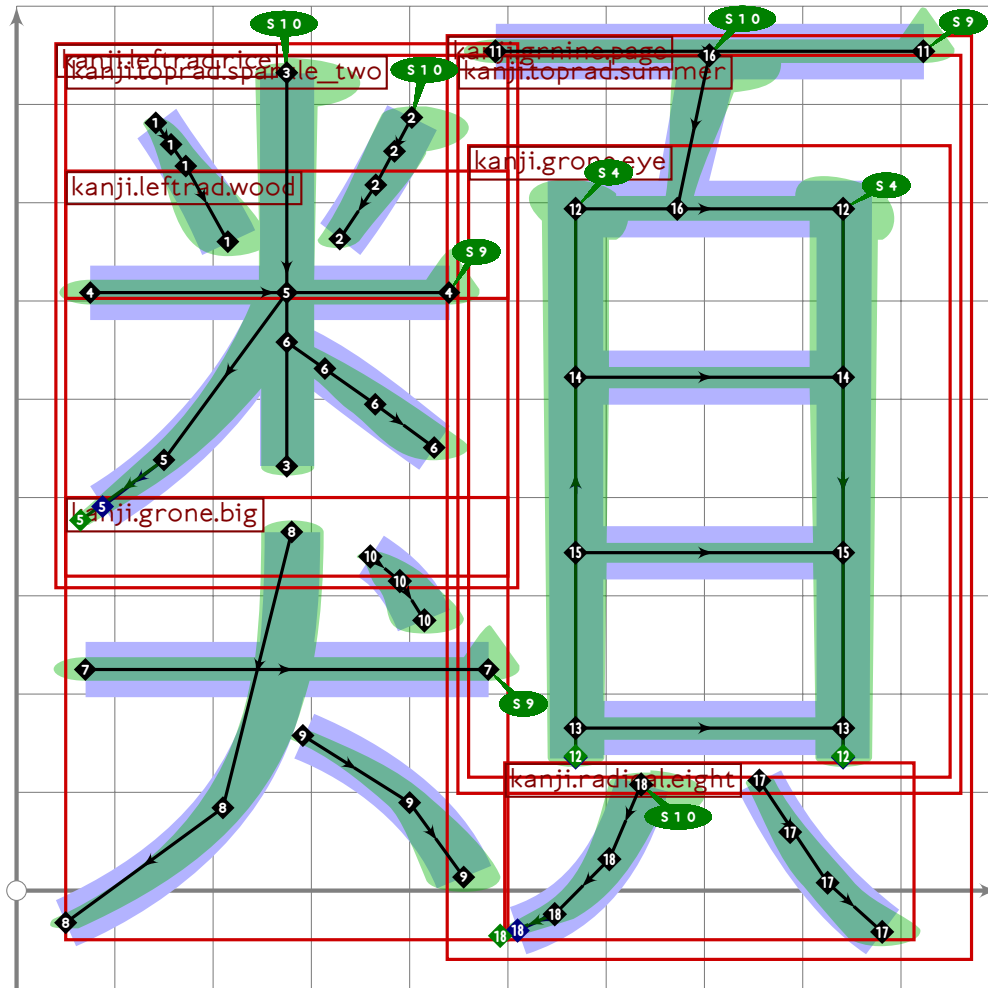
```
1 %
2 % Unicode page F9 (Han compatibility characters) for Tsukurimashou
3 % Copyright (C) 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 % AUTODEPS
36 input buildkanji.mp;
37 input gradenine.mp;
38 input gradeone.mp;
39 input leftrad.mp;
40 input radical.mp;
41 input toprad.mp;
42
43 do_late_includes;
44
45 

---


46
```



F9

```

47 % standard form of U+985E except in Japan and Vietnam
48 begintsuglyph("uniF9D0";208);
49   build_kanji.level(build_kanji.lr(480,40)
50     (build_kanji.lift_skirt(200,40)(build_kanji.tb(360,80)
51       (kanji.leftrad.rice;
52         replace_stroke(-3)(subpath (0,0,8) of oldp))
53       (kanji.leftrad.big;
54         push_stroke((670,730)..(730,680)..(780,600),
55           (1,1)–(14,14)–(18,18))))))
56     (kanji.grnine.page));
57   tsu_render;
58 endtsuglyph;
59
60
61
62 endfont;
63
64

```

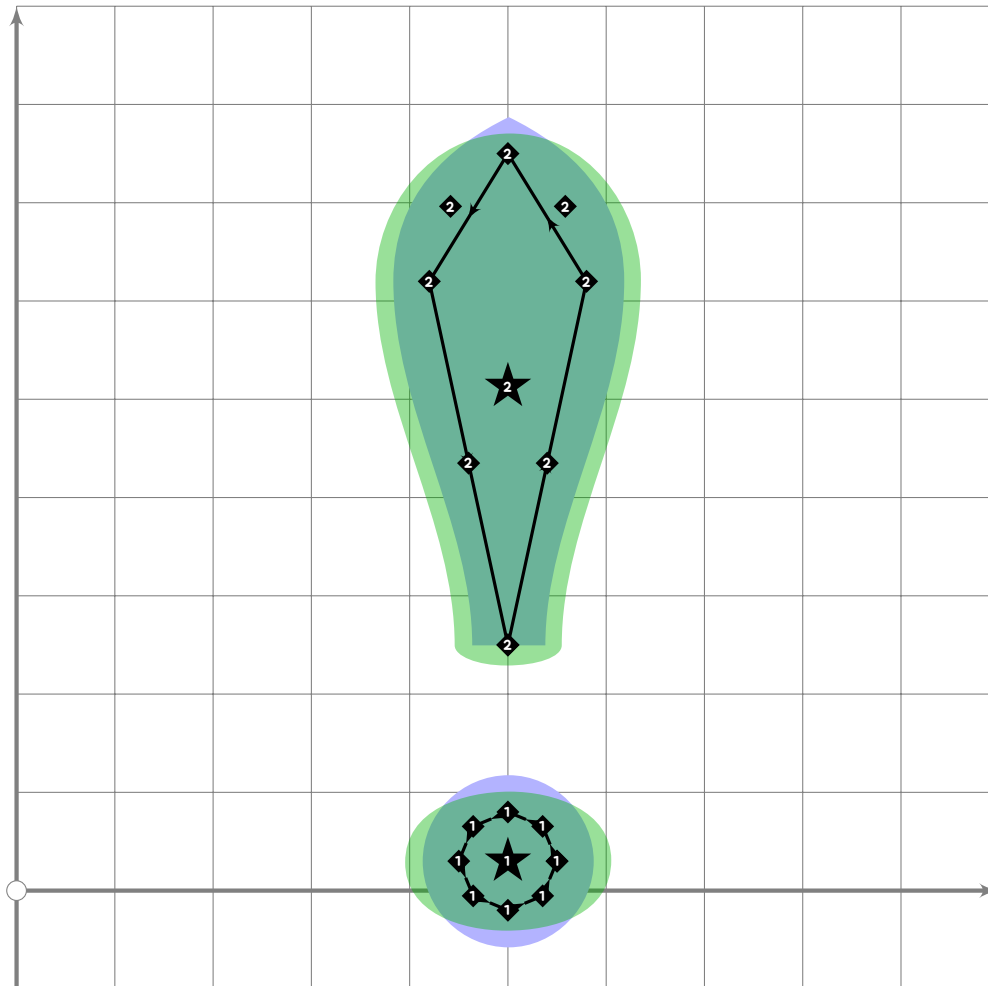
tsuku-ff.mp

FF

```
1 %
2 % Unicode page FF (Full-width and Half-width Forms) for Tsukurimashou
3 % Copyright (C) 2011, 2012, 2013, 2015 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 _____
32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input accent.mp;
39 input dakuten.mp;
40 input katakana.mp;
41 input latin.mp;
42 input numerals.mp;
43 input punct.mp;
44
45 do_late_includes;
46
47 _____
48
```

Full-Width Forms

```
49 % FULL-WIDTH FORMS
50
51 % WARNING this code is substantially duplicated in tsuku-00; just
52 % enough differences to make sharing impractical
53
```



FF

```

54 % exclamation point
55 begintsuglyph("uniFF01";1);
56   if tsu_brush_max.brpunct*100>=tsu_punct_size:
57     push_lcblob(fullcircle
58       xscaled (tsu_punct_size+tsu_brush_max.brpunct*100)
59       yscaled (tsu_punct_size+tsu_brush_max.brpunct*100
60         *tsu_brush_shape.brpunct)
61       rotated tsu_brush_angle.brpunct
62       shifted (500,30));
63   else:
64     push_stroke(fullcircle scaled tsu_punct_size shifted (500,30),
65       (2,2)-(2,2)-(2,2)-(2,2)-cycle);
66     if tsu_brush_max.brpunct*100>=3:
67       push_lcblob(get_stroke(0));
68     fi;
69   fi;
70
71   push_stroke((500,250){up}..(580,620){up}..{curl 1}(500,750){curl 1}..
72     (420,620){down}..{down}(500,250),
73     (2,2)-(2,2)-(2,2)-(2,2)-(2,2));
74

```

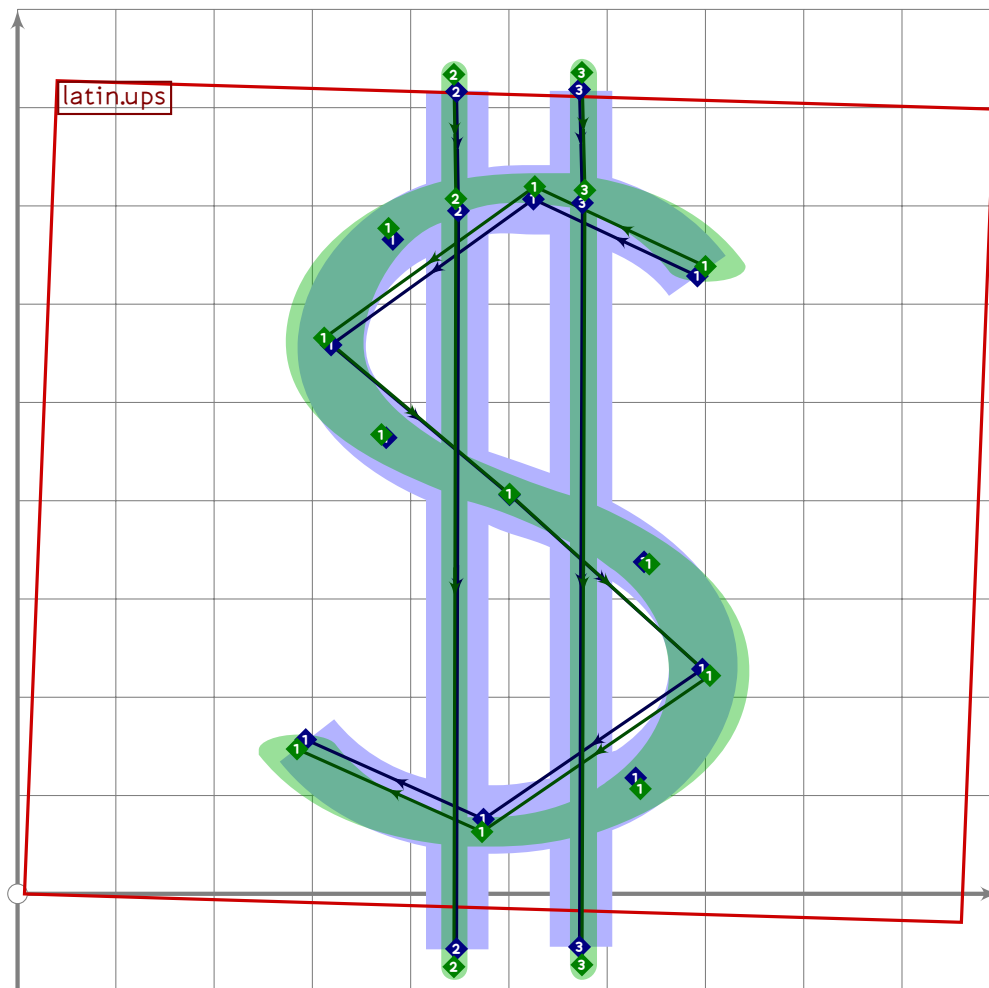
U+FF04
tsuku.uniFF04

```
75  if tsu_brush_max.brpunct>=0.3:
76      push_lcblob((subpath (0,1,3,9) of get_strokep(0))-cycle);
77  fi;
78  tsu_render;
79 endtsuglyph;
80
81 % ASCII (neither left nor right) quotation mark
82 begintsuglyph("uniFF02";2);
83  punct.asciiquote;
84  tsu_render;
85 endtsuglyph;
86
87 % number sign
88 begintsuglyph("uniFF03";3);
89  punct.numbersign;
90  tsu_render;
91 endtsuglyph;
92
```

[see page 370]

[see page 393]

FF



```
93 % dollar sign
94 begintsuglyph("uniFF04";4);
95  tsu_xform(identity shifted -centre_pt
```

```

96     rotated -2 xyscaled (1.06,0.92) shifted centre_pt)(latin.ups);
97
98     numeric x[],y[];
99     x1=x2=0.38[xpart llcorner get_strokep(0),xpart lrcorner get_strokep(0)];
100    x3=x4=0.69[xpart llcorner get_strokep(0),xpart lrcorner get_strokep(0)];
101    y1=y3=1.12[latin_wide_low_r,latin_wide_high_r];
102    y2=y4=(-0.15)[latin_wide_low_r,latin_wide_high_r];
103
104    z5=(get_strokep(0) intersectionpoint (z1-z2))+(2,-1);
105    push_stroke((z1-z5-z2) shifted (0,-1),
106      (2,2)-(2,2)-(2,2));
107    set_bosize(0,85);
108    set_bobrush(0,bralternate);
109
110    z6=(get_strokep(-1) intersectionpoint (z3-z4))+(3,1);
111    push_stroke((z3-z6-z4) shifted (0,1),
112      (2,2)-(2,2)-(2,2));
113    set_bosize(0,85);
114    set_bobrush(0,bralternate);
115
116    tsu_render;
117 endtsuglyph;
118
119 % percent
120 begintsuglyph("uniFF05",5);
121   punct.percent;
122   tsu_render;
123 endtsuglyph;
124
125 % ampersand
126 begintsuglyph("uniFF06",6);
127   punct.ampersand;
128   tsu_render;
129 endtsuglyph;
130

```

FF

[see page 397]

[see page 369]

U+FF07
tsuku.uniFF07

FF



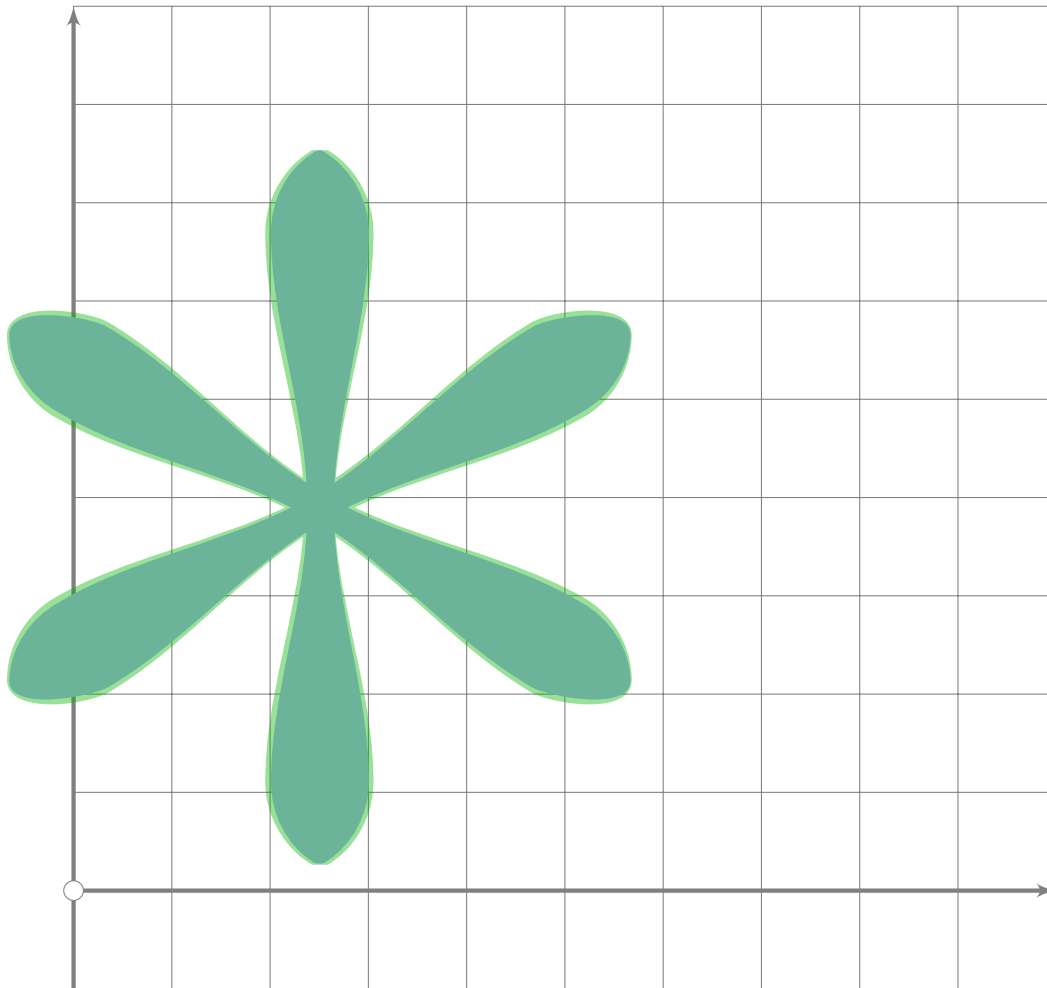
```

131 % apostrophe
132 beginsuglyph("uniFF07";7);
133   punct.make_comma((480,vmetric(0.94)),0);
134   tsu_render;
135 endsuglyph;
136
137 % left and right parentheses
138 beginsuglyph("uniFF08";8);
139   punct.paren_left;
140   tsu_render;
141 endsuglyph;
142 beginsuglyph("uniFF09";9);
143   punct.paren_right;
144   tsu_render;
145 endsuglyph;
146

```

[see page 395]

[see page 396]



FF

```

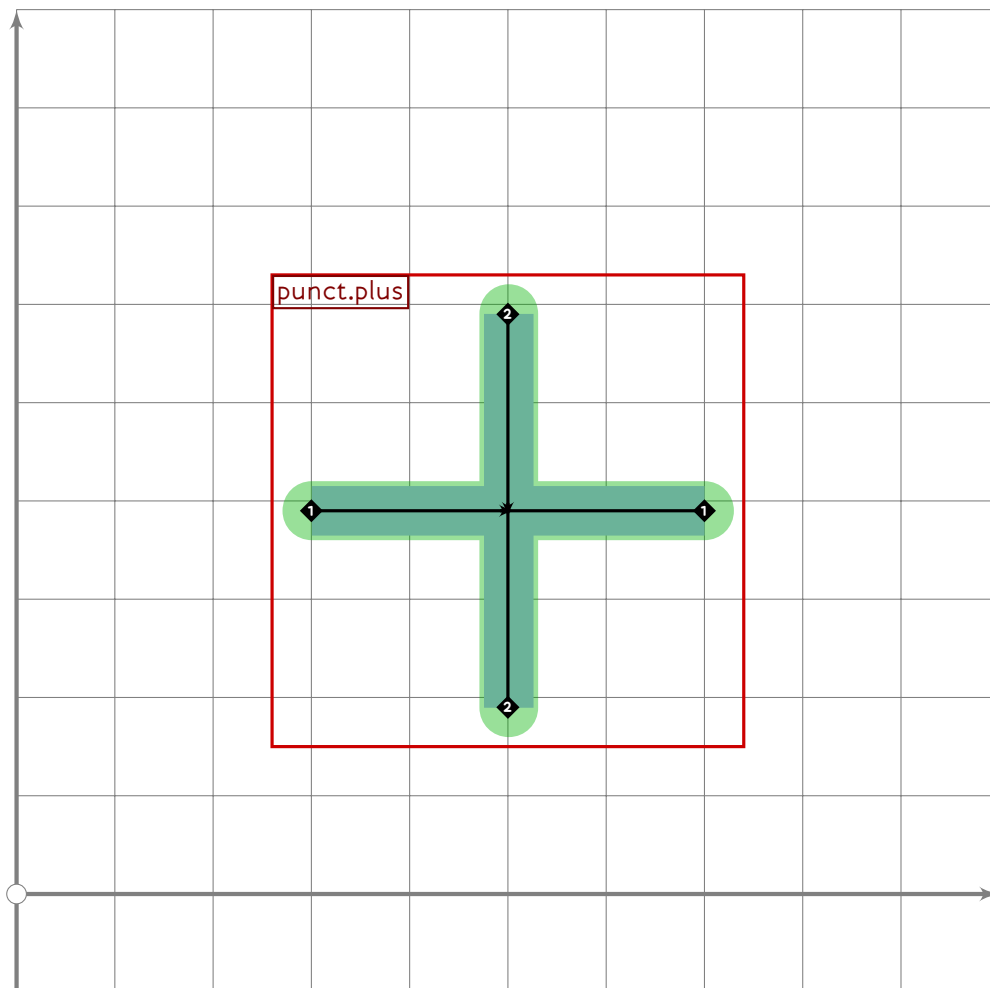
147 % asterisk
148 begintsuglyph("uniFF0A",10);
149   begingroup
150     save lobe,glyph,nlobes;
151     path lobe,glyph;
152     numeric nlobes;
153
154     lobe:=(1,0){up}..((1+tsu_brush_max.brpunct)*tsu_punct_size/4,280){up}
155       ..{curl 1}{0,350}{curl 1}
156       ..(-(1+tsu_brush_max.brpunct)*tsu_punct_size/4,280){down};
157     if rescale_slant>50:
158       lobe:=(lobe..(-1,0){down}..(0,-1)..cycle) scaled (tsu_punct_size/90);
159       nlobes:=5;
160     else:
161       lobe:=(lobe..(lobe rotated 180)..cycle) scaled (tsu_punct_size/100);
162       nlobes:=3;
163     fi;
164
165     default_nib:=fix_nib(50*tsu_brush_max.brpunct,
166       50*tsu_brush_max.brpunct*tsu_brush_shape.brpunct,
167       tsu_brush_angle.brpunct);

```

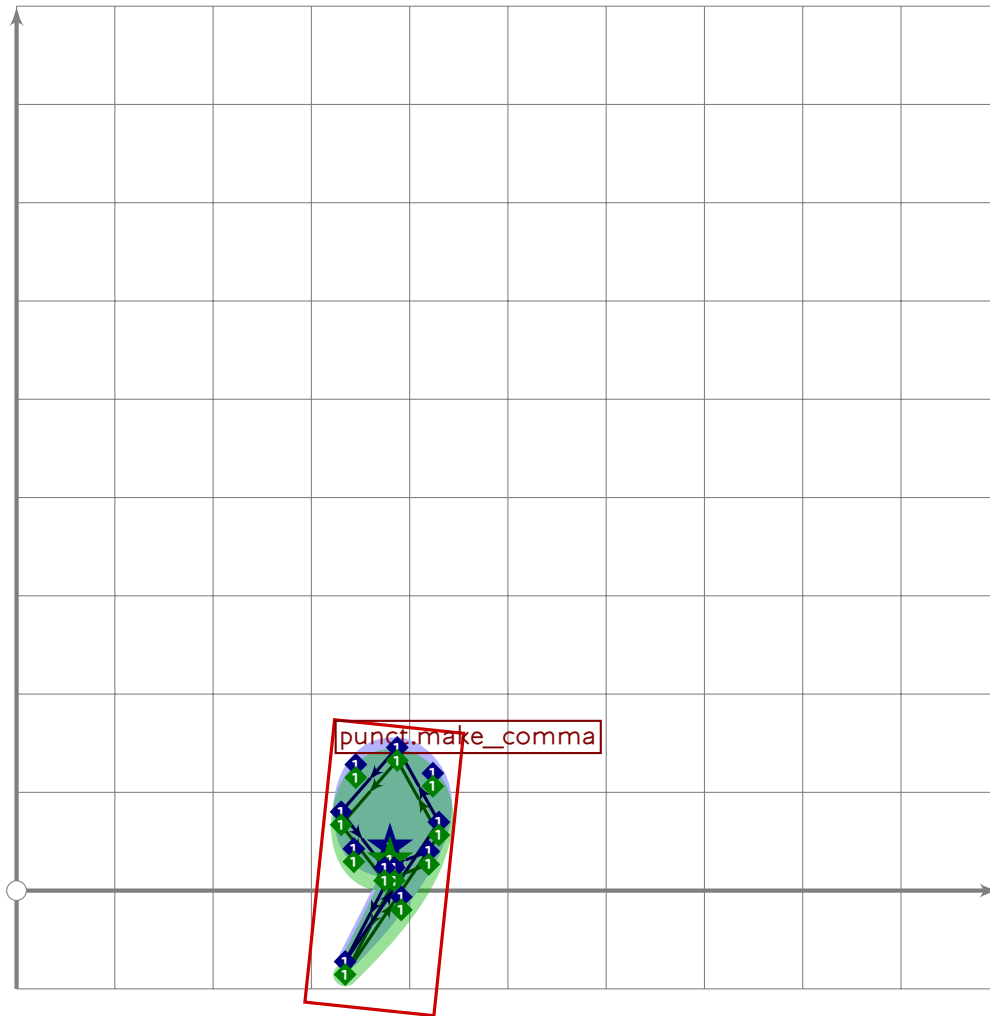

U+FF0B
tsuku.uniFF0B

```
168
169   for i:=0 upto nlobes-1:
170       pen_stroke()(lobe rotated (i*360/nlobes)
171                   shifted (centre_pt+(-250,0))) (glyph);
172       dangerousFill glyph.r;
173   endfor;
174 endgroup;
175 endsuglyph;
176
```

FF



```
177 % plus
178 beginsuglyph("uniFF0B";1);
179   punct.plus
180     (identity scaled (2*tsu_punct_size) shifted centre_pt);
181   tsu_render;
182 endsuglyph;
183
```



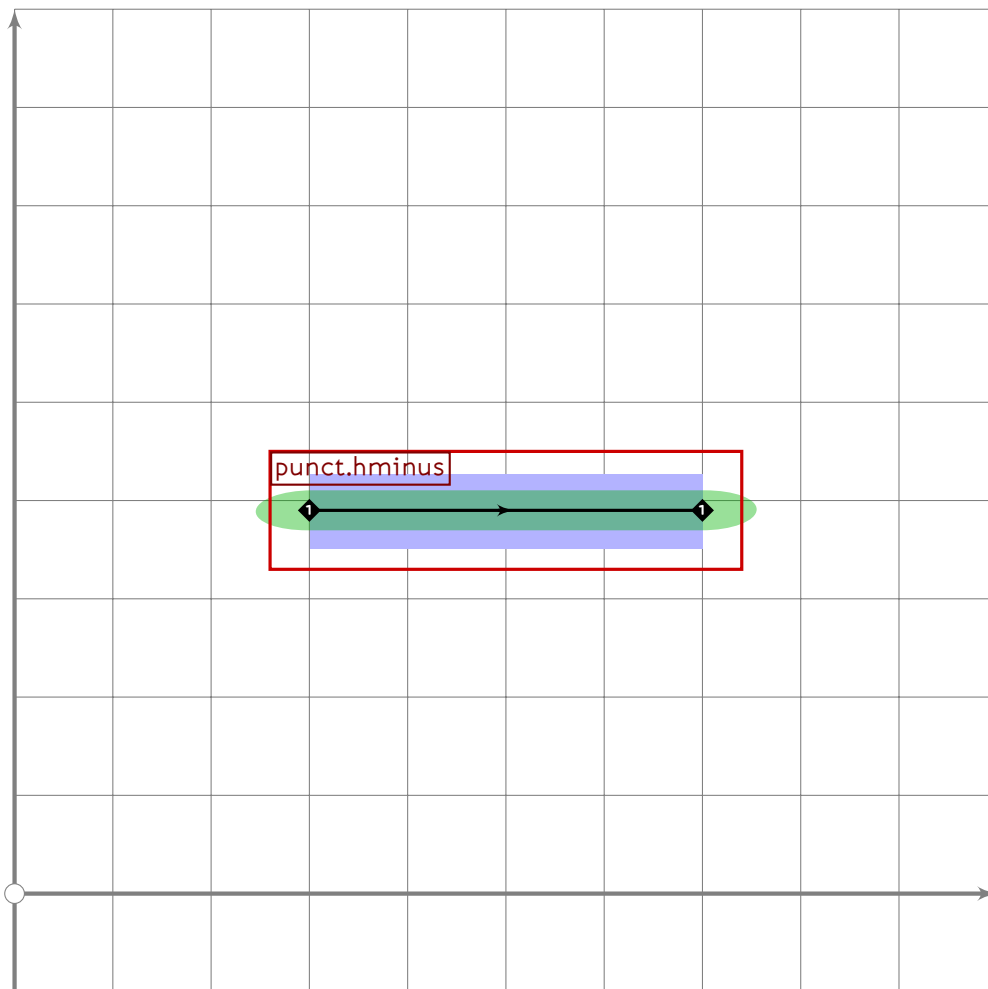
```

184 % comma
185 begintsuglyph('uniFF0C'12);
186 punct.make_comma((380,ymetric(0.03)),0);
187 tsu_render;
188 endtsuglyph;
189

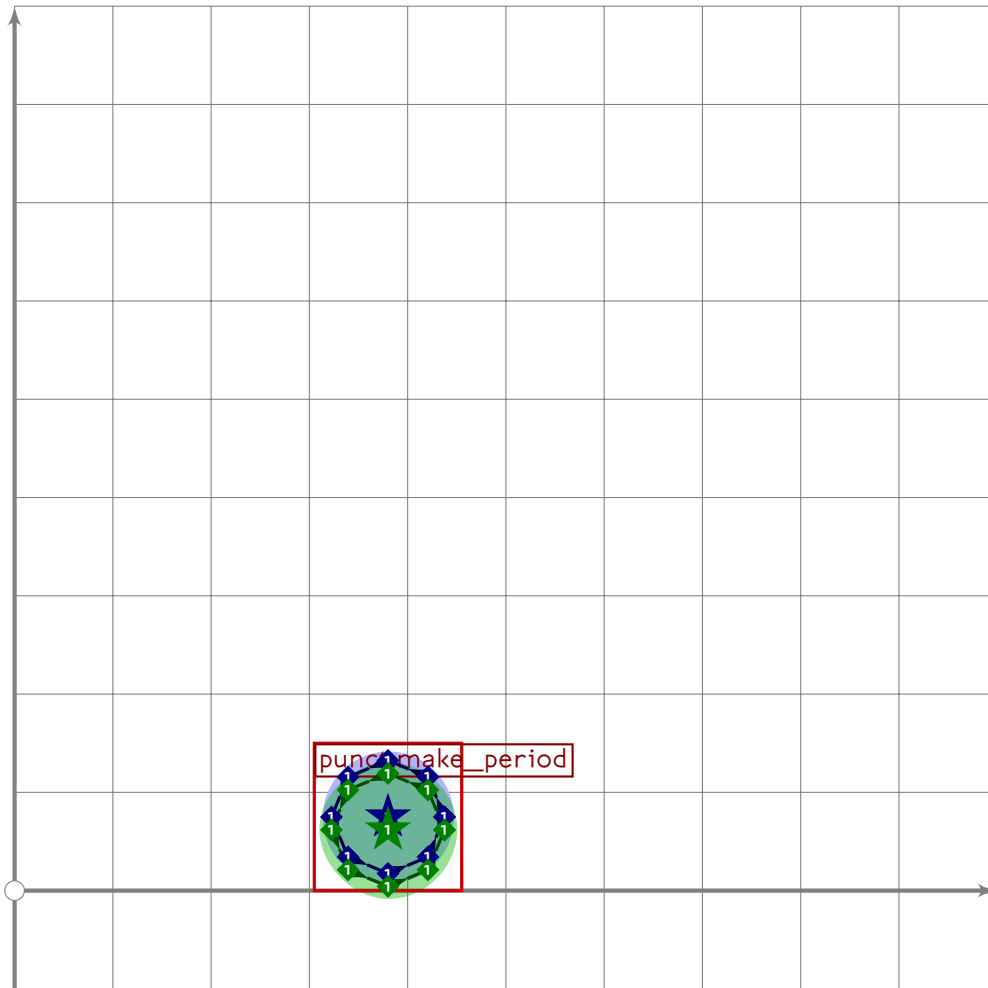
```

U+FF0D
tsuku.uniFF0D

FF



```
190 % hyphen-minus
191 begint Suglyph("uniFF0D";13);
192   punct.hminus
193     (identity scaled (2*tsu_punct_size) shifted centre_pt);
194   tsu_render;
195 endtsuglyph;
196
```



FF

```

197 % period
198 begintsuglyph("uniFF0E";14);
199 punct.make_period((380,vmetric(0.03)));
200 tsu_render;
201 endtsuglyph;
202
203 % slash
204 begintsuglyph("uniFF0F";15);
205 punct.slash;
206 tsu_render;
207 endtsuglyph;
208
209 % 0
210 begintsuglyph("uniFF10";16);
211 numeral.zero;
212 tsu_render;
213 endtsuglyph;
214
215 % 1
216 begintsuglyph("uniFF11";17);
217 numeral.one;

```

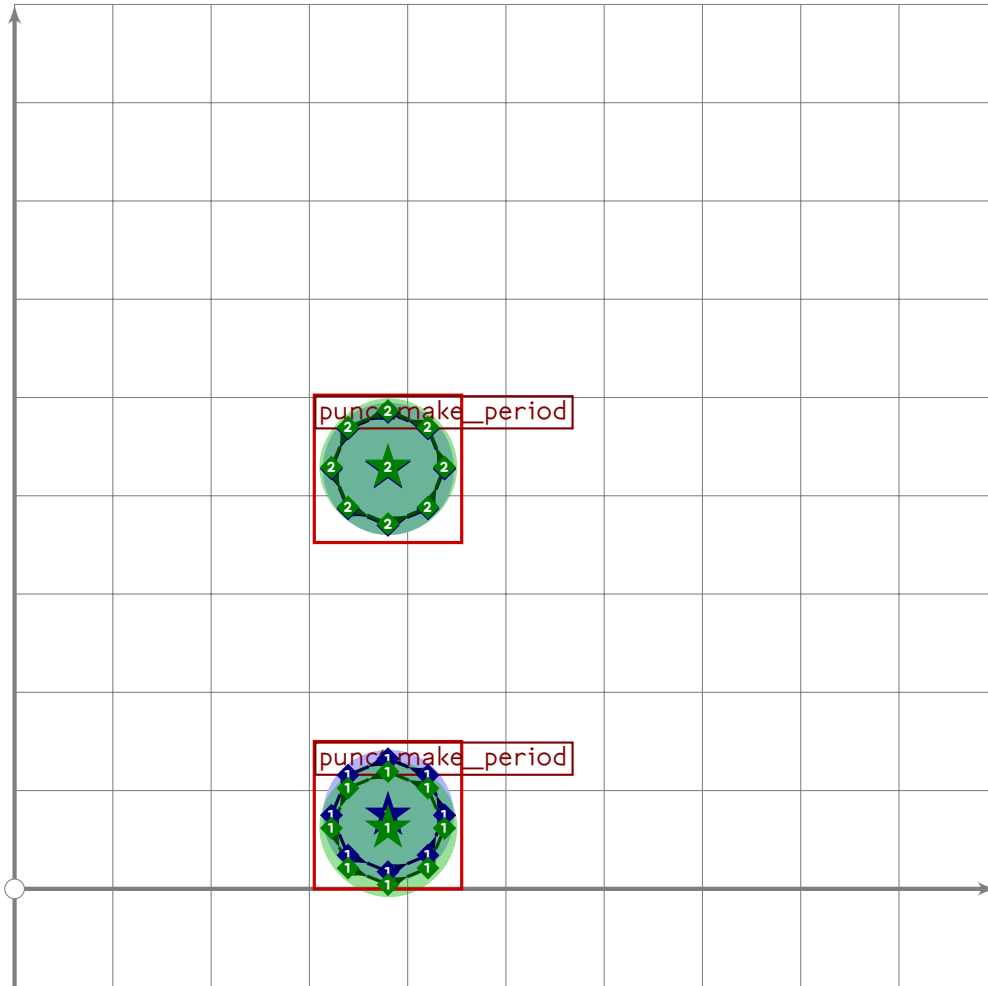
[see page 403]

[see page 346]

[see page 347]

```
218   tsu_render;
219 endtsuglyph;
220
221 % 2
222 begintsuglyph("uniFF12";18); [see page 348]
223   numeral.two;
224   tsu_render;
225 endtsuglyph;
226
227 % 3
228 begintsuglyph("uniFF13";19); [see page 349]
229   numeral.three;
230   tsu_render;
231 endtsuglyph;
232
233 % 4
234 begintsuglyph("uniFF14";20); [see page 350]
235   numeral.four;
236   tsu_render;
237 endtsuglyph;
238
239 % 5
240 begintsuglyph("uniFF15";21); [see page 351]
241   numeral.five;
242   tsu_render;
243 endtsuglyph;
244
245 % 6
246 begintsuglyph("uniFF16";22); [see page 352]
247   numeral.six;
248   tsu_render;
249 endtsuglyph;
250
251 % 7
252 begintsuglyph("uniFF17";23); [see page 353]
253   numeral.seven;
254   tsu_render;
255 endtsuglyph;
256
257 % 8
258 begintsuglyph("uniFF18";24); [see page 354]
259   numeral.eight;
260   tsu_render;
261 endtsuglyph;
262
263 % 9
264 begintsuglyph("uniFF19";25); [see page 355]
265   numeral.nine;
```

```
266 tsu_render;
267 endtsuglyph;
268
```

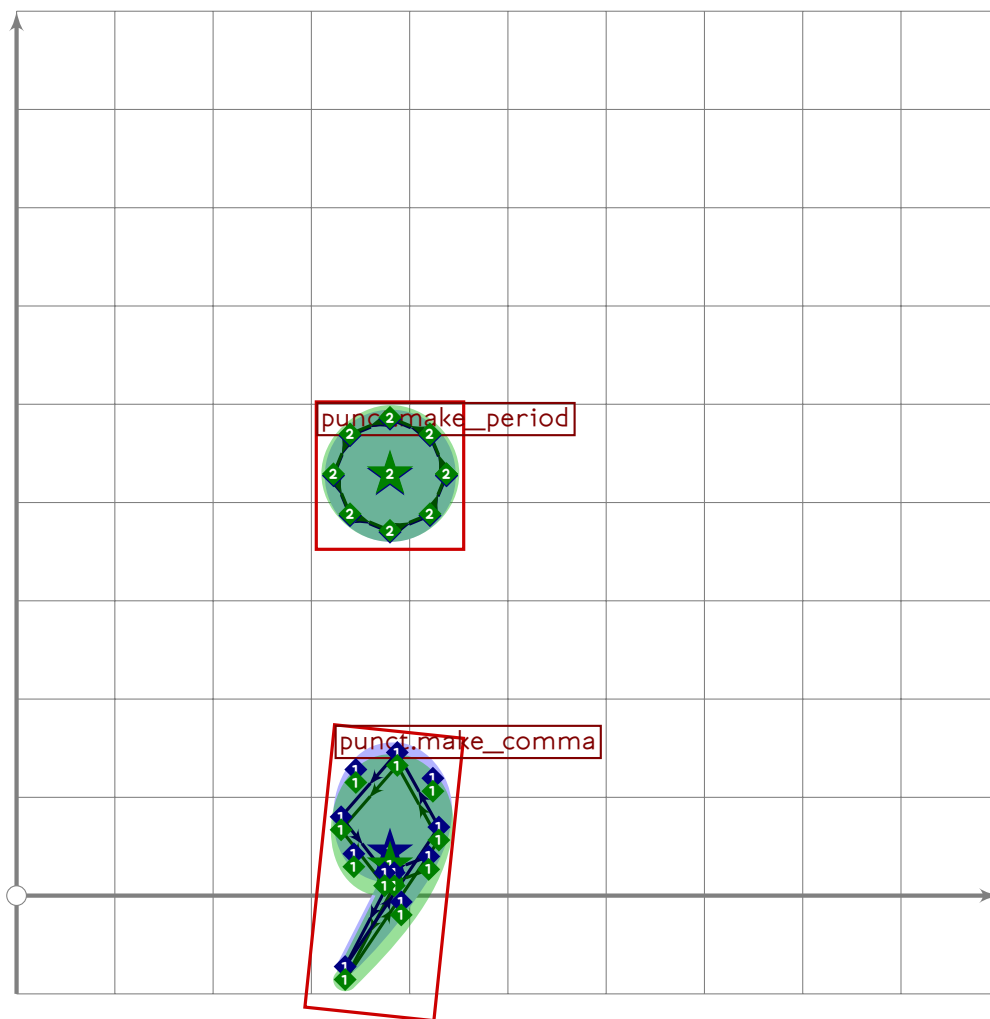


```
269 % colon
270 begint Suglyph("uniFF1A";26);
271 punct.make_period((380,vmetric(0.03)));
272 punct.make_period((380,vmetric(0.56)));
273 tsu_render;
274 endtsuglyph;
275
```

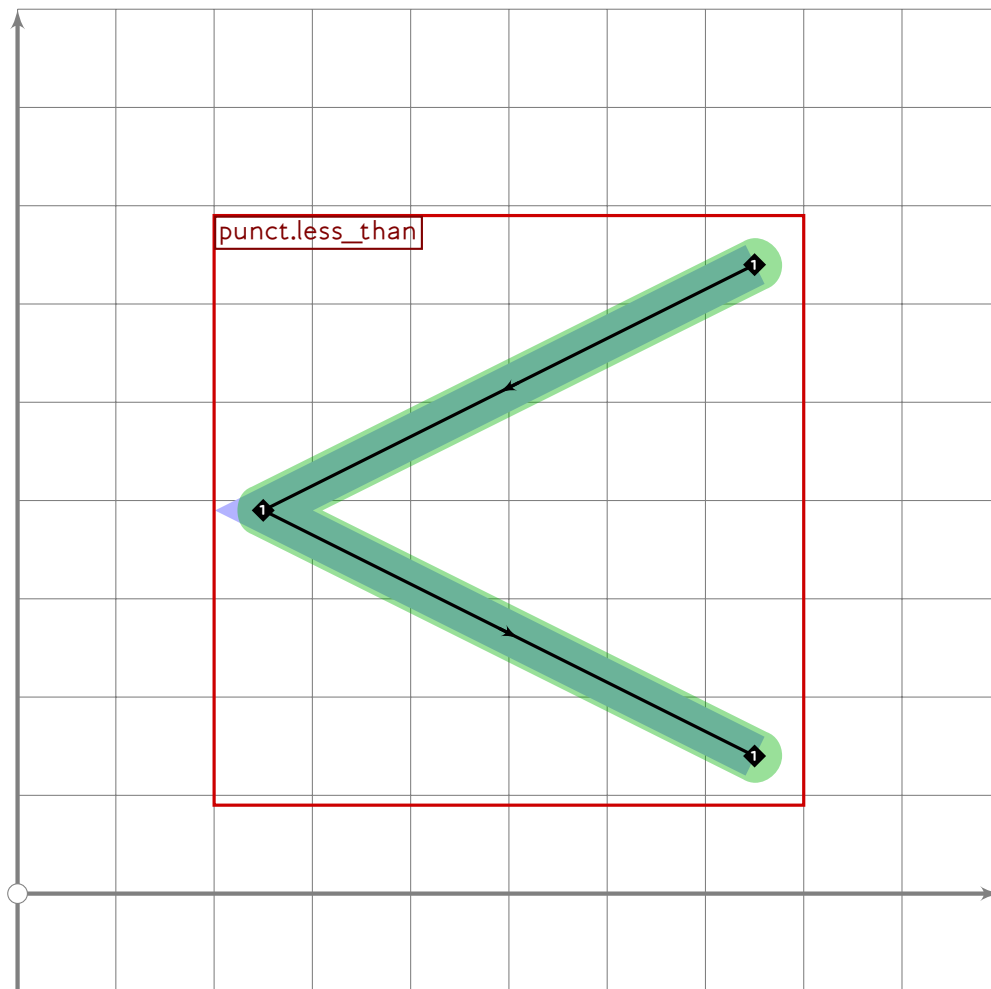
FF

U+FF1B
tsuku.uniFF1B

FF



```
276 % semicolon
277 begintsuglyph("uniFF1B";27);
278 punct.make_comma((380,vmetric(0.03)),0);
279 punct.make_period((380,vmetric(0.56)));
280 tsu_render;
281 endtsuglyph;
282
```



FF

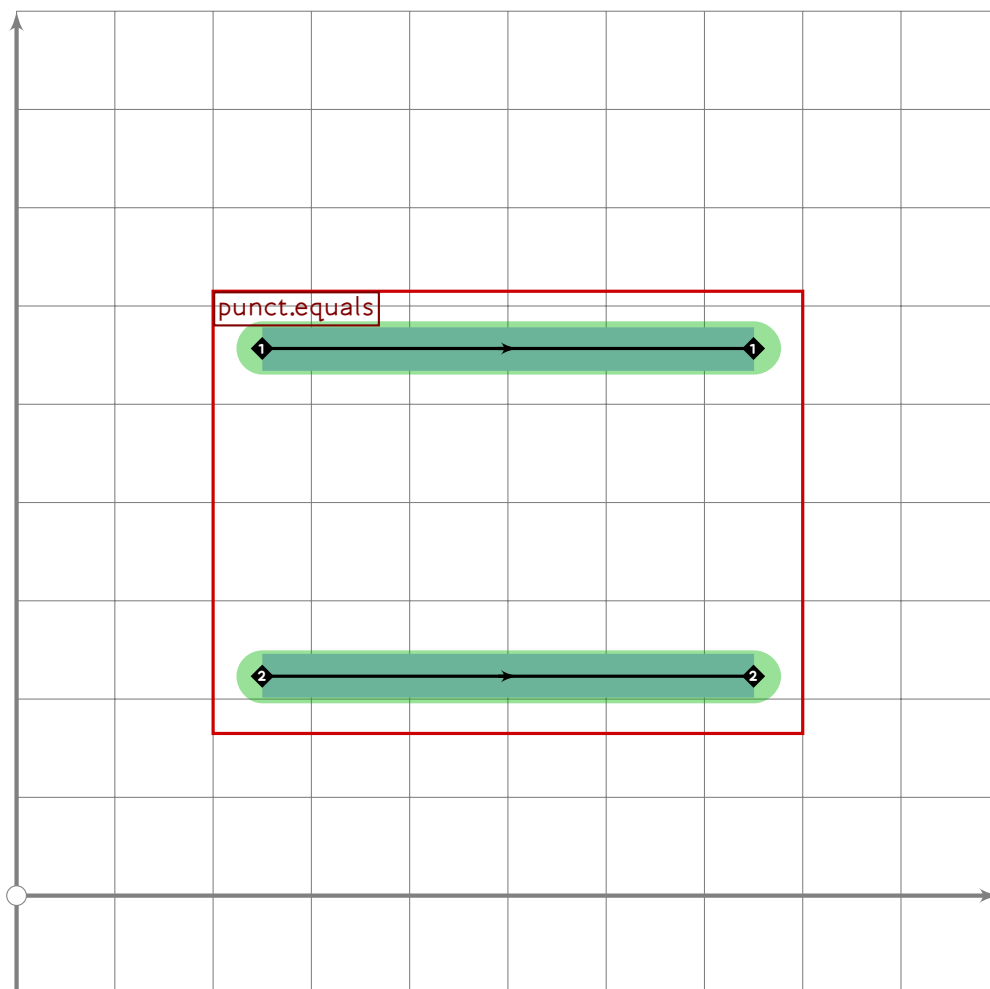
```

283 % less than
284 begintsuglyph("uniFF1C",28);
285   punct.less_than
286     (identity scaled (2.5*tsu_punct_size) shifted centre_pt);
287   tsu_render;
288 endtsuglyph;
289

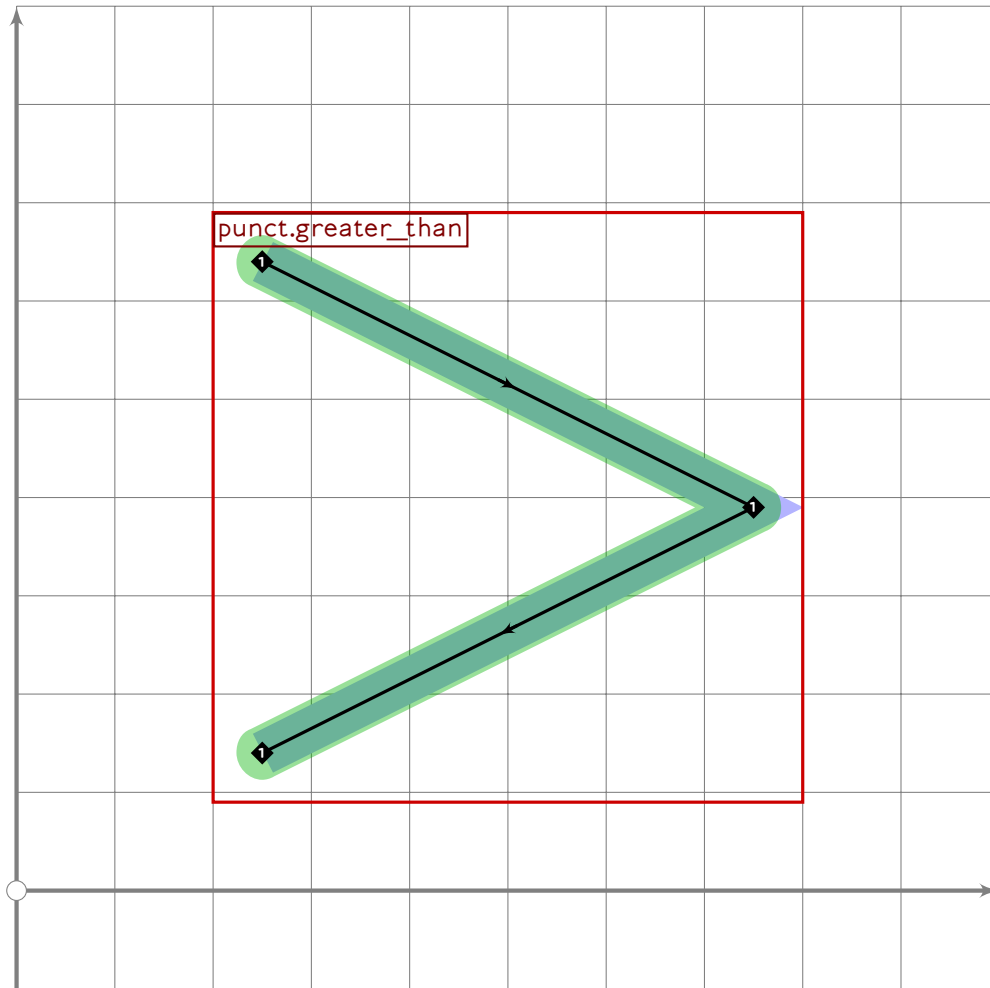
```


U+FF1D
tsuku.uniFF1D

FF



```
290 % equals
291 begintsuglyph("uniFF1D",29);
292 punct.equals
293     (identity scaled (2.5*tsu_punct_size) shifted centre_pt);
294 tsu_render;
295 endtsuglyph;
296
```



FF

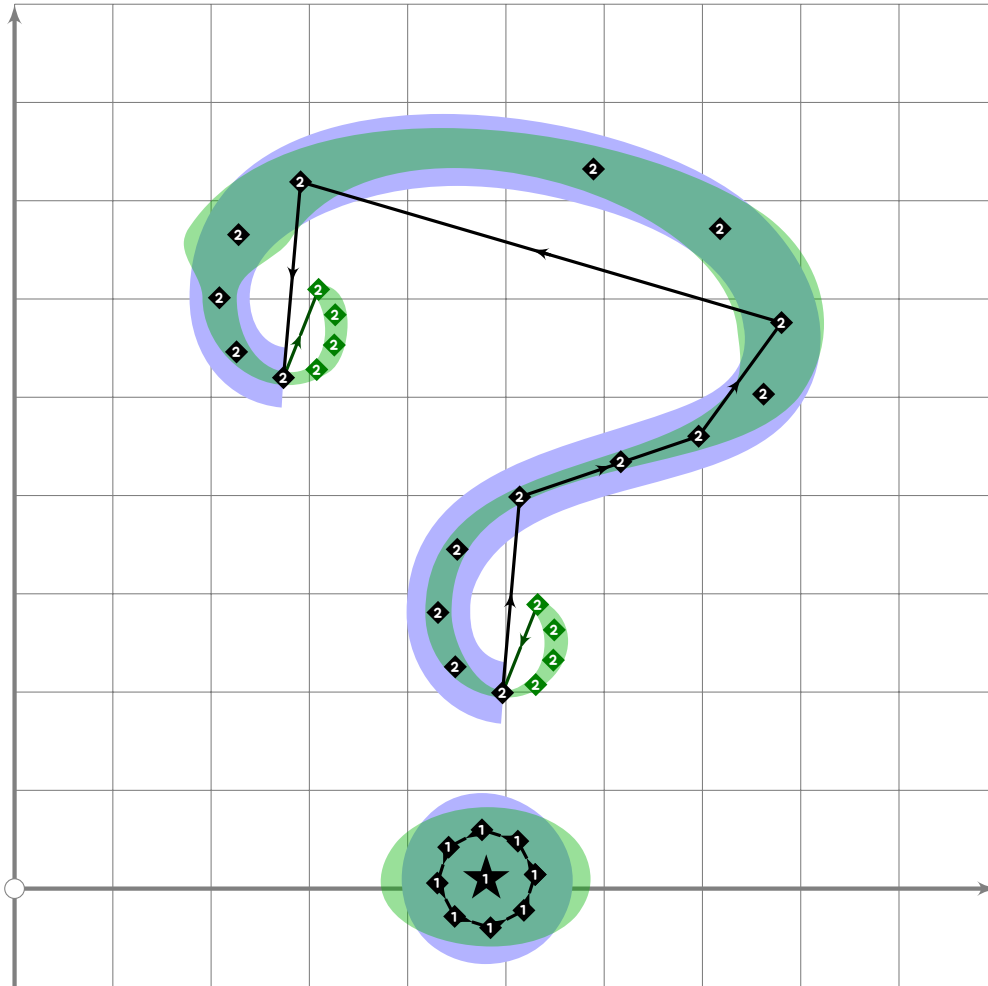
```

297 % greater than
298 begintsuglyph("uniFF1E";30);
299 punct.greater_than
300     (identity scaled (2.5*tsu_punct_size) shifted centre_pt);
301 tsu_render;
302 endtsuglyph;
303

```

U+FF1F
tsuku.uniFF1F

FF



```

304 % question mark
305 begint Suglyph("uniFF1F",31);
306     numeric r;
307     if tsu_brush_max.brpunct*100>=tsu_punct_size:
308         push_lcblob(fullcircle
309             xscaled (tsu_punct_size+tsu_brush_max.brpunct*100)
310             yscaled (tsu_punct_size+tsu_brush_max.brpunct*100*
311                 tsu_brush_shape.brpunct)
312             rotated tsu_brush_angle.brpunct
313             shifted (480,10));
314         r:=tsu_brush_max.brpunct*100;
315     else:
316         push_stroke(fullcircle scaled tsu_punct_size rotated 5 shifted (480,10),
317             (2,2)-(2,2)-(2,2)-(2,2)-cycle);
318         if tsu_brush_max.brpunct>=0.3:
319             push_lcblob(get_stroke(0));
320         fi;
321         r:=tsu_punct_size;
322     fi;
323
324     push_stroke((480,300){right}..(480,300-r){left}..

```

```

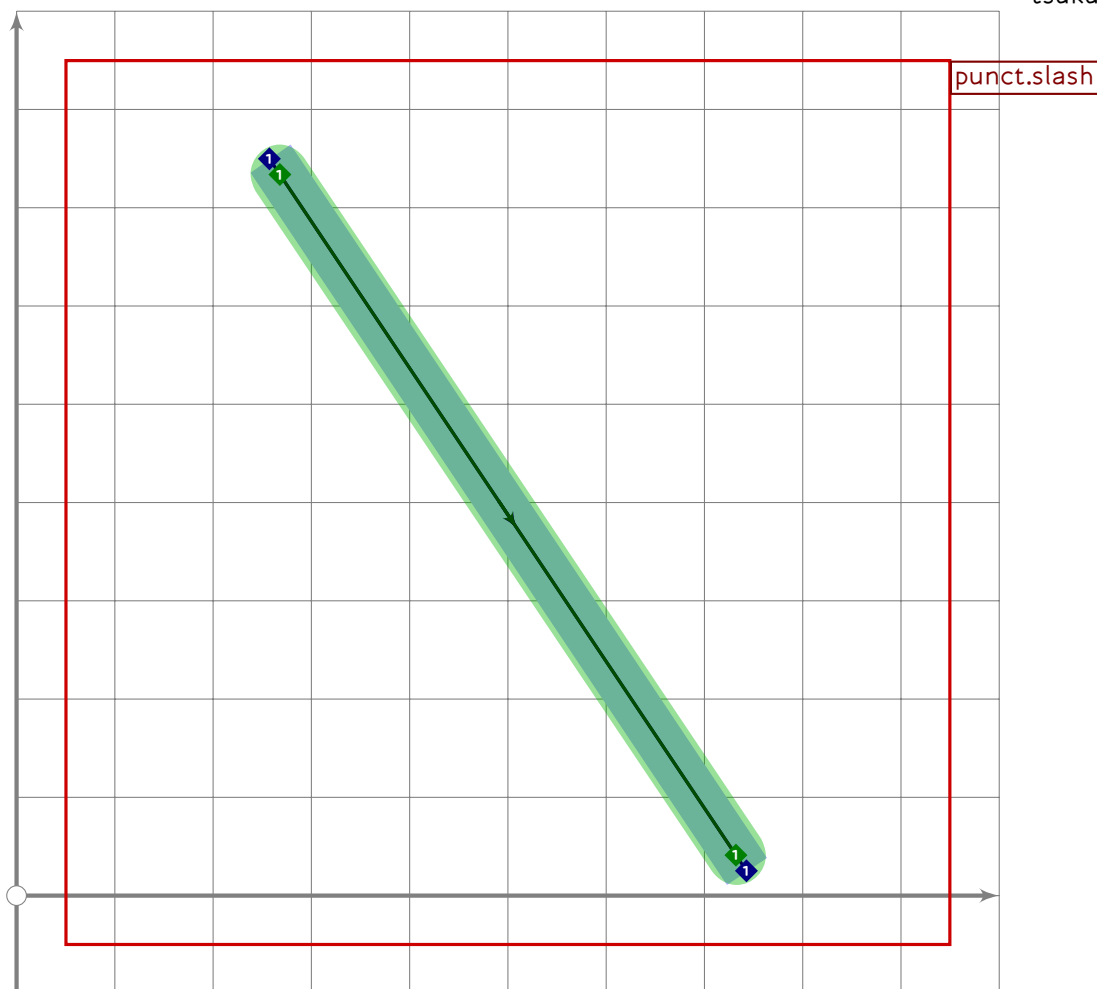
325      (480,300+r)..(480+2.5*r,600)..
326      tension 1.3..(480-2.5*r,600+r)..
327      (480-2.5*r,600-r){right}..
328      (480-2.5*r,600){left},
329      (0.8,0.8)-(1,1)-(2,2)-(2,2)-(2,2)-(1,1)-(0.8,0.8));
330      replace_strokep(0)(insert_nodes(oldp)(2.5) rotatedaround ((480,10),-5));
331
332      tsu_render;
333 endtsuglyph;
334
335 % commercial at
336 begintsuglyph("uniFF20",32); [see page 372]
337   punct.at sign;
338   tsu_render;
339 endtsuglyph;
340
341 tsu_accent.up_default_anchors;
342
343 % A
344 begintsuglyph("uniFF21",33); [see page 257]
345   latin.upa;
346   tsu_render;
347 endtsuglyph;
348
349 % B
350 begintsuglyph("uniFF22",34); [see page 261]
351   latin.upb;
352   tsu_render;
353 endtsuglyph;
354
355 % C
356 begintsuglyph("uniFF23",35); [see page 262]
357   latin.upc;
358   tsu_render;
359 endtsuglyph;
360
361 % D
362 begintsuglyph("uniFF24",36); [see page 263]
363   latin.upd;
364   tsu_render;
365 endtsuglyph;
366
367 % E
368 begintsuglyph("uniFF25",37); [see page 266]
369   latin.upe;
370   tsu_render;
371 endtsuglyph;
372

```

```
373 % F
374 begintsuglyph("uniFF26";38); [see page 267]
375 latin.upf;
376 tsu_render;
377 endtsuglyph;
378
379 % G
380 begintsuglyph("uniFF27";39); [see page 269]
381 latin.upg;
382 tsu_render;
383 endtsuglyph;
384
385 % H
386 begintsuglyph("uniFF28";40); [see page 270]
387 latin.uph;
388 tsu_render;
389 endtsuglyph;
390
391 % I
392 begintsuglyph("uniFF29";41); [see page 271]
393 latin.upi;
394 tsu_render;
395 endtsuglyph;
396
397 % J
398 begintsuglyph("uniFF2A";42); [see page 272]
399 latin.upj;
400 tsu_render;
401 endtsuglyph;
402
403 % K
404 begintsuglyph("uniFF2B";43); [see page 274]
405 latin.upk;
406 tsu_render;
407 endtsuglyph;
408
409 % L
410 begintsuglyph("uniFF2C";44); [see page 275]
411 latin.upl;
412 tsu_render;
413 endtsuglyph;
414
415 % M
416 begintsuglyph("uniFF2D";45); [see page 277]
417 latin.upm;
418 tsu_render;
419 endtsuglyph;
420
```

421 % N	
422 begintsuglyph("uniFF2E";46);	[see page 278]
423 latin.upn;	
424 tsu_render;	
425 endtsuglyph;	
426	
427 % O	
428 begintsuglyph("uniFF2F";47);	[see page 281]
429 latin.upo;	
430 tsu_render;	
431 endtsuglyph;	
432	
433 % P	
434 begintsuglyph("uniFF30";48);	[see page 284]
435 latin.upp;	
436 tsu_render;	
437 endtsuglyph;	
438	
439 % Q	
440 begintsuglyph("uniFF31";49);	[see page 285]
441 latin.upq;	
442 tsu_render;	
443 endtsuglyph;	
444	
445 % R	
446 begintsuglyph("uniFF32";50);	[see page 286]
447 latin.upr;	
448 tsu_render;	
449 endtsuglyph;	
450	
451 % S	
452 begintsuglyph("uniFF33";51);	[see page 287]
453 latin.ups;	
454 tsu_render;	
455 endtsuglyph;	
456	
457 % T	
458 begintsuglyph("uniFF34";52);	[see page 289]
459 latin.upt;	
460 tsu_render;	
461 endtsuglyph;	
462	
463 % U	
464 begintsuglyph("uniFF35";53);	[see page 291]
465 latin.upu;	
466 tsu_render;	
467 endtsuglyph;	
468	

```
469 % V
470 begintsuglyph("uniFF36",54); [see page 292]
471 latin.upv;
472 tsu__render;
473 endtsuglyph;
474
475 % W
476 begintsuglyph("uniFF37",55); [see page 293]
477 latin.upw;
478 tsu__render;
479 endtsuglyph;
480
481 % X
482 begintsuglyph("uniFF38",56); [see page 295]
483 latin.upx;
484 tsu__render;
485 endtsuglyph;
486
487 % Y
488 begintsuglyph("uniFF39",57); [see page 296]
489 latin.upy;
490 tsu__render;
491 endtsuglyph;
492
493 % Z
494 begintsuglyph("uniFF3A",58); [see page 298]
495 latin.upz;
496 tsu__render;
497 endtsuglyph;
498
499 tsu__accent.clear_default_anchors;
500
501 % left and right square brackets
502 begintsuglyph("uniFF3B",59); [see page 404]
503 punct.sqb_left;
504 tsu__render;
505 endtsuglyph;
```



FF

```

506 % backslash
507 begintsuglyph("uniFF3C",60);
508   tsu_xform(identity reflectedabout (centre_pt,(centre_pt+down)))
509   (punct.slash);
510   tsu_render;
511 endtsuglyph;
512 begintsuglyph("uniFF3D",61);
513   punct.sqb_right;
514   tsu_render;
515 endtsuglyph;
516
517 % circumflex/caret
518 begintsuglyph("uniFF3E",62);
519   tsu_accent.circumflex;
520   tsu_render;
521 endtsuglyph;
522
523 % underscore
524 begintsuglyph("uniFF3F",63);
525   punct.underscore;
526   tsu_render;

```

[see page 405]

[see page 106]

[see page 406]


```

527 endtsuglyph;
528
529 % grave accent
530 begintsuglyph("uniFF40",64); [see page 108]
531   tsu__accent.grave;
532   tsu__render;
533 endtsuglyph;
534
535 tsu__accent.low_default_anchors;
536
537 % a
538 begintsuglyph("uniFF41",65); [see page 300]
539   latin.lowa;
540   tsu__render;
541 endtsuglyph;
542
543 % b
544 begintsuglyph("uniFF42",66); [see page 303]
545   latin.lowb;
546   tsu__render;
547 endtsuglyph;
548
549 % c
550 begintsuglyph("uniFF43",67); [see page 304]
551   latin.lowc;
552   tsu__render;
553 endtsuglyph;
554
555 % d
556 begintsuglyph("uniFF44",68); [see page 305]
557   latin.lowd;
558   tsu__render;
559 endtsuglyph;
560
561 % e
562 begintsuglyph("uniFF45",69); [see page 306]
563   latin.lowe;
564   tsu__render;
565 endtsuglyph;
566
567 % f
568 begintsuglyph("uniFF46",70); [see page 311]
569   latin.lowf;
570   tsu__render;
571 endtsuglyph;
572
573 % g
574 begintsuglyph("uniFF47",71); [see page 312]

```

575	latin.lowg;	
576	tsu_render;	
577	endtsuglyph;	
578		
579	% h	
580	begintsuglyph("uniFF48";72);	[see page 314]
581	latin.lowh;	
582	tsu_render;	
583	endtsuglyph;	
584		
585	% i	
586	begintsuglyph("uniFF49";73);	[see page 315]
587	latin.lowi;	
588	tsu_render;	
589	endtsuglyph;	
590		
591	% j	
592	begintsuglyph("uniFF4A";74);	[see page 317]
593	latin.lowj;	
594	tsu_render;	
595	endtsuglyph;	
596		
597	% k	
598	begintsuglyph("uniFF4B";75);	[see page 319]
599	latin.lowk;	
600	tsu_render;	
601	endtsuglyph;	
602		
603	% l	
604	begintsuglyph("uniFF4C";76);	[see page 321]
605	latin.lowl;	
606	tsu_render;	
607	endtsuglyph;	
608		
609	% m	
610	begintsuglyph("uniFF4D";77);	[see page 322]
611	latin.lowm;	
612	tsu_render;	
613	endtsuglyph;	
614		
615	% n	
616	begintsuglyph("uniFF4E";78);	[see page 323]
617	latin.lown;	
618	tsu_render;	
619	endtsuglyph;	
620		
621	% o	
622	begintsuglyph("uniFF4F";79);	[see page 326]

```
623 latin.lowo;
624 tsu_render;
625 endtsuglyph;
626
627 % p
628 begintsuglyph("uniFF50";80); [see page 328]
629 latin.lowp;
630 tsu_render;
631 endtsuglyph;
632
633 % q
634 begintsuglyph("uniFF51";81); [see page 329]
635 latin.lowq;
636 tsu_render;
637 endtsuglyph;
638
639 % r
640 begintsuglyph("uniFF52";82); [see page 331]
641 latin.lowr;
642 tsu_render;
643 endtsuglyph;
644
645 % s
646 begintsuglyph("uniFF53";83); [see page 332]
647 latin.lows;
648 tsu_render;
649 endtsuglyph;
650
651 % t
652 begintsuglyph("uniFF54";84); [see page 335]
653 latin.lowt;
654 tsu_render;
655 endtsuglyph;
656
657 % u
658 begintsuglyph("uniFF55";85); [see page 338]
659 latin.lowu;
660 tsu_render;
661 endtsuglyph;
662
663 % v
664 begintsuglyph("uniFF56";86); [see page 339]
665 latin.lowv;
666 tsu_render;
667 endtsuglyph;
668
669 % w
670 begintsuglyph("uniFF57";87); [see page 340]
```

```

671 latin.loww;
672 tsu_render;
673 endtsuglyph;
674
675 % x
676 begintsuglyph("uniFF58";88); [see page 342]
677 latin.lowx;
678 tsu_render;
679 endtsuglyph;
680
681 % y
682 begintsuglyph("uniFF59";89); [see page 343]
683 latin.lowy;
684 tsu_render;
685 endtsuglyph;
686
687 % z
688 begintsuglyph("uniFF5A";90); [see page 345]
689 latin.lowz;
690 tsu_render;
691 endtsuglyph;
692
693 tsu_accent.clear_default_anchors;
694
695 % left and right square brackets, around vertical line
696 begintsuglyph("uniFF5B";91); [see page 373]
697 punct.brace_left;
698 tsu_render;
699 endtsuglyph;
700 begintsuglyph("uniFF5C";92); [see page 407]
701 punct.vline;
702 tsu_render;
703 endtsuglyph;
704 begintsuglyph("uniFF5D";93); [see page 374]
705 punct.brace_right;
706 tsu_render;
707 endtsuglyph;
708
709 % "fullwidth tilde" - identical to "wave dash"
710 begintsuglyph("uniFF5E";94); [see page 408]
711 punct.wavedash;
712 tsu_render;
713 endtsuglyph;
714
715 begingroup
716 save rescale_slant;
717 rescale_slant:=0;
718

```

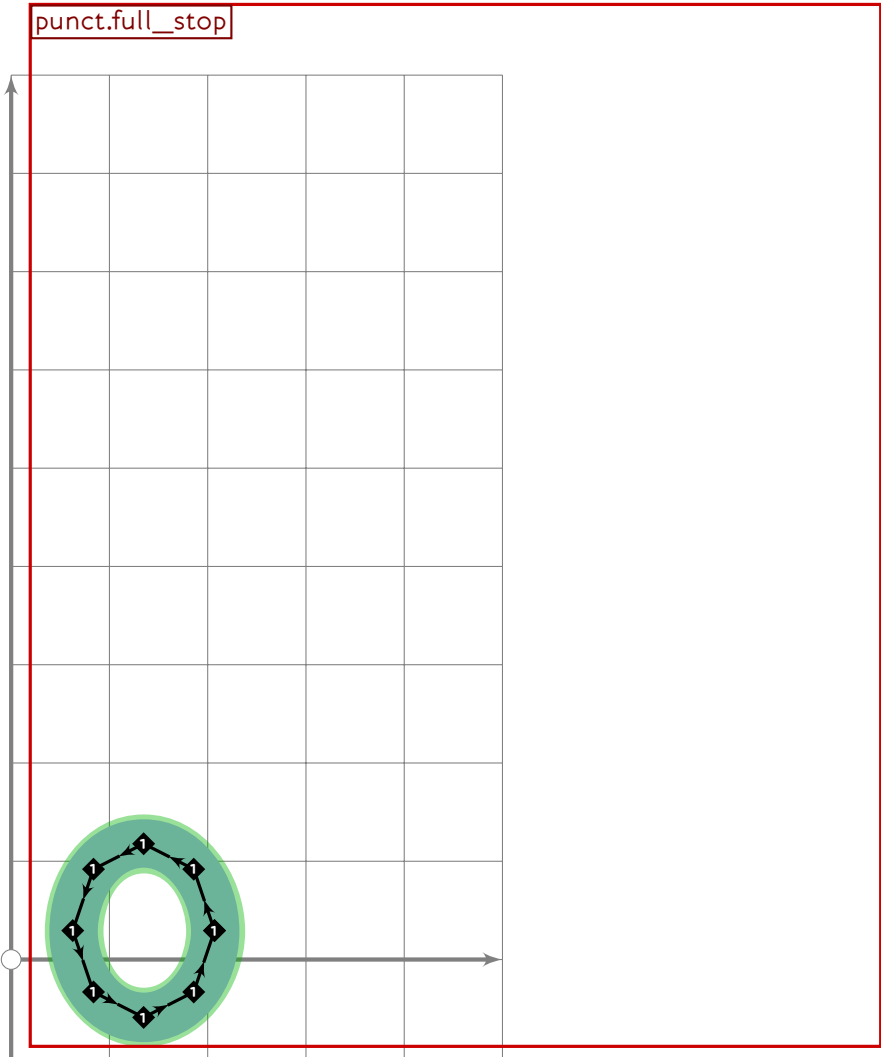
U+FF61
tsuku.uniFF61

```
719 % left and right white parentheses
720 begintsuglyph("uniFF5F",95); [see page 409]
721 punct.wparen_left;
722 tsu_render;
723 endtsuglyph;
724 begintsuglyph("uniFF60",96); [see page 410]
725 punct.wparen_right;
726 tsu_render;
727 endtsuglyph;
728
729
730
```

FF

Half-Width Punctuation

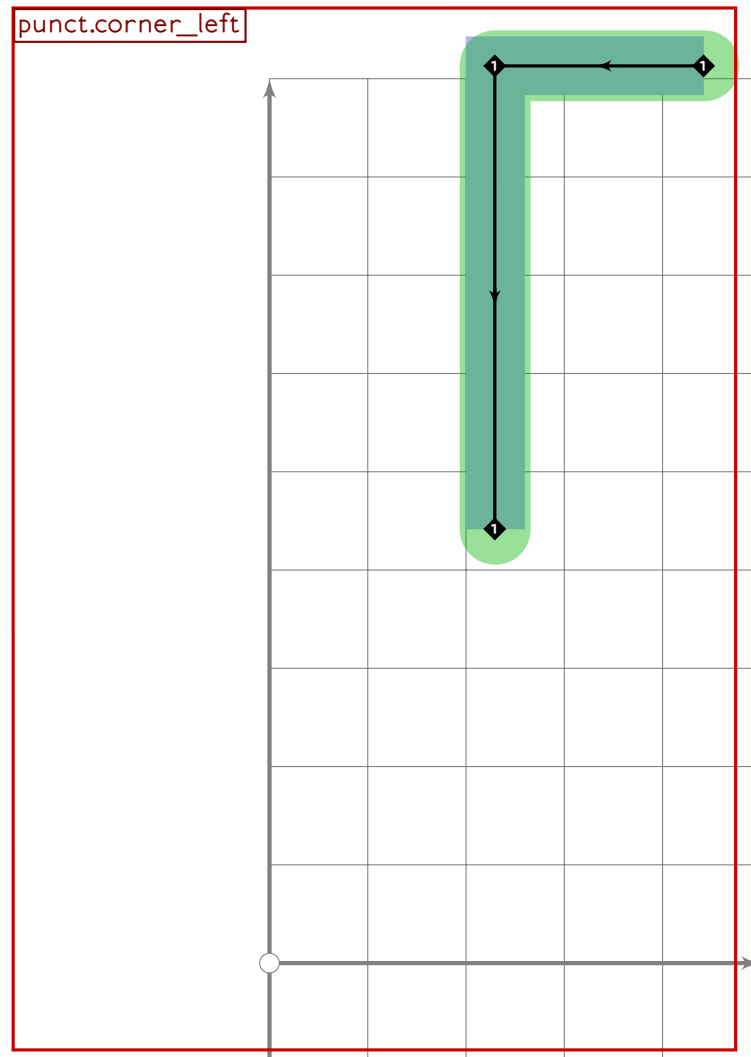
```
731 % HALF-WIDTH PUNCTUATION
732
733 % WARNING changing rescale setting
734 tsu_rescale_half;
735
```



```

736 % ideographic full stop
737 begintsuglyph("uniFF61";97);
738   punct.full_stop;
739   tsu_render;
740 endtsuglyph;
741

```



```

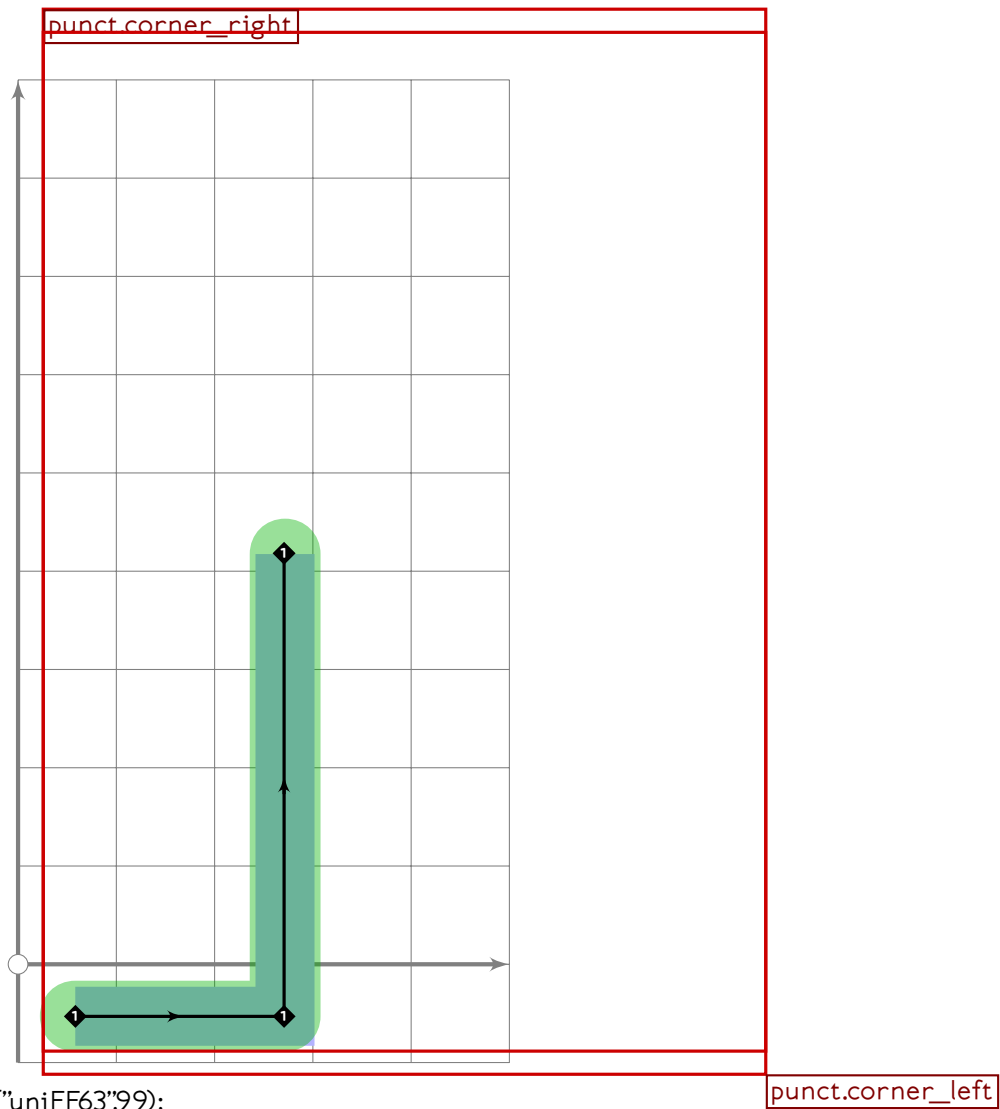
742 % left and right corner brackets
743 begintsuglyph("uniFF62";98);
744   punct.corner_left;
745   tsu_render;
746 endtsuglyph;

```

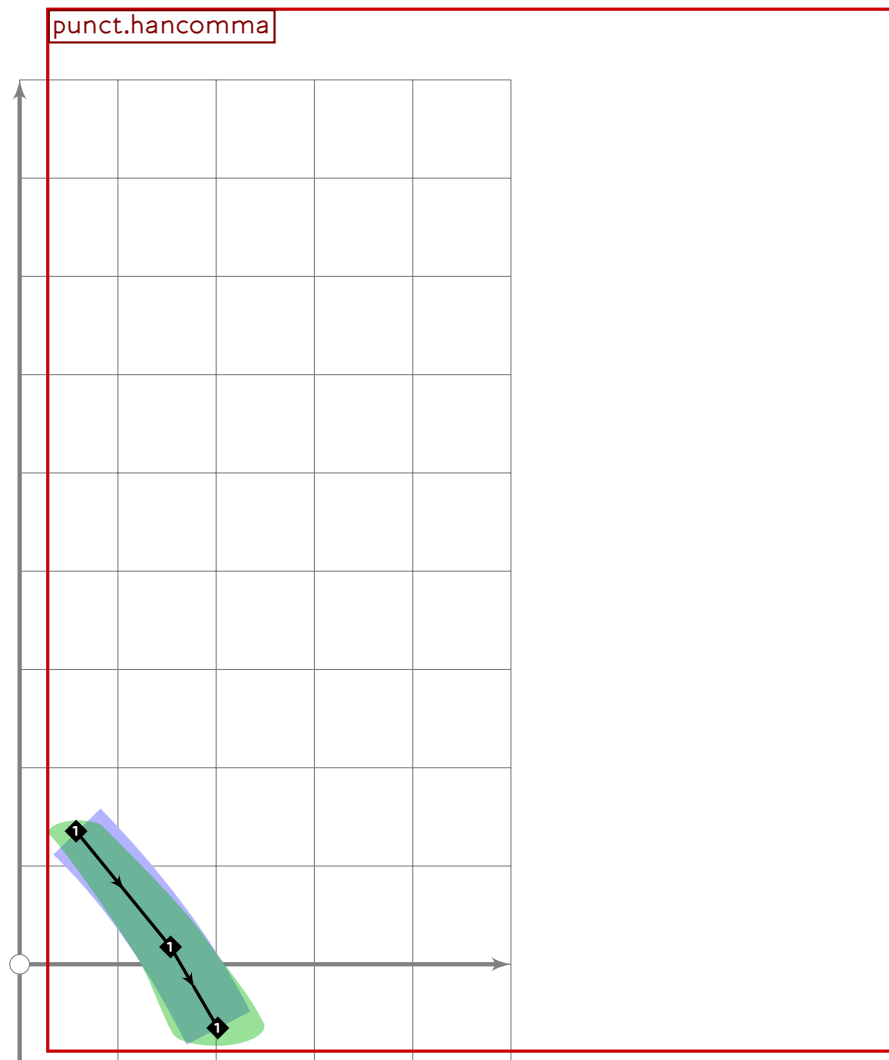
FF

U+FF63
tsuku.uniFF63

FF



```
747 begint Suglyph('uniFF63';99);
748   punct.corner_right;
749   tsu_render;
750 endtsuglyph;
751
```



FF

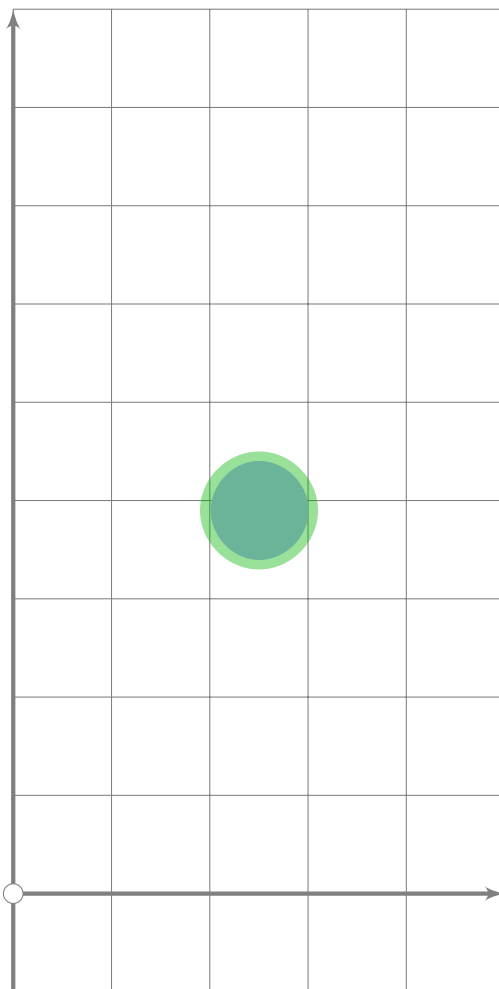
```
752 % ideographic comma
753 beginsuglyph('uniFF64',100);
754   punct.hancomma;
755   tsu_render;
756 endtsuglyph;
757
758
759
```

Half-Width Katakana

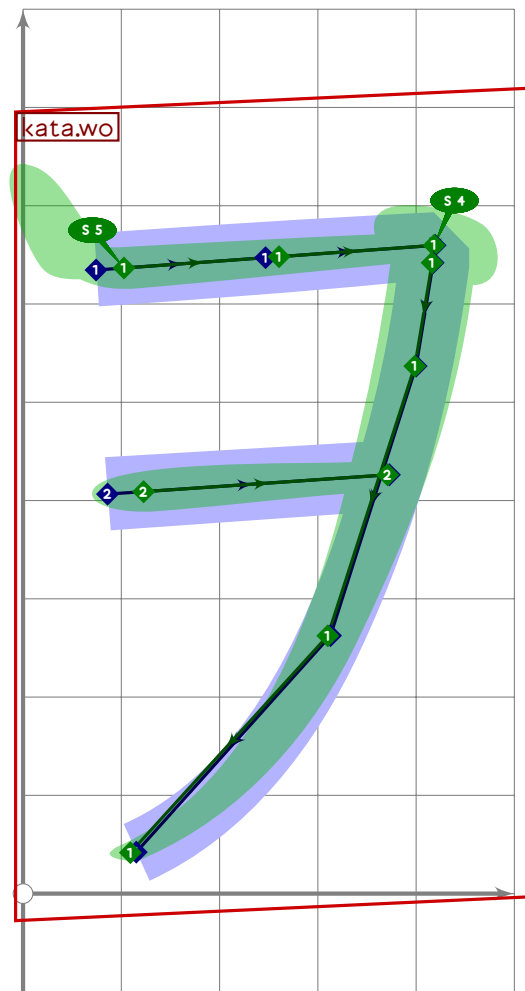
```
760 % HALF-WIDTH KATAKANA
761
762 % WARNING changing rescale setting
763 tsu_rescale_half_katakana;
764
```


U+FF65
tsuku.uniFF65

FF



```
765 % katakana middle dot
766 begintsuglyph("uniFF65";101);
767   Fill fullcircle scaled (200*tsu_brush_max.brpunct)
768     shifted (250,ypart centre_pt);
769 endsuglyph;
770
```



FF

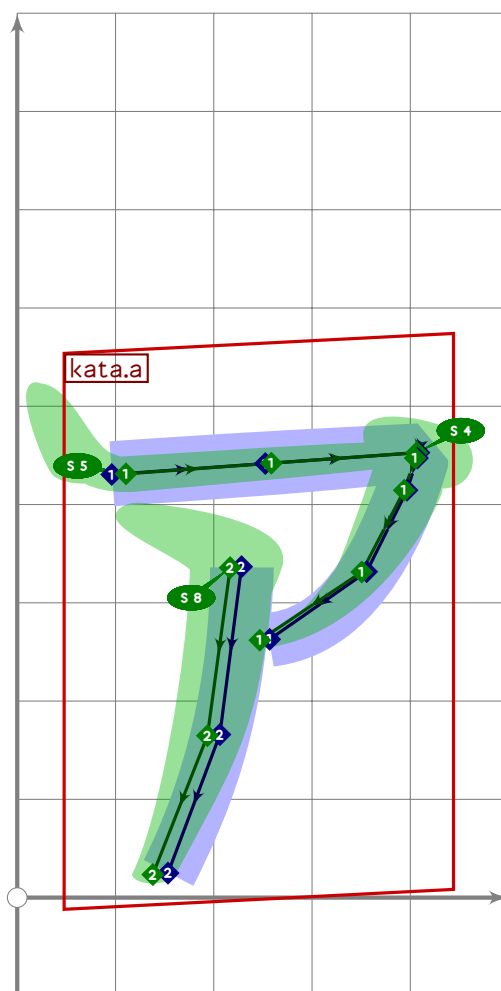
```

771 % katakana "wo"
772 begint Suglyph("uniFF66",102);
773   kata.wo;
774   tsu_render;
775 endtsuglyph;
776

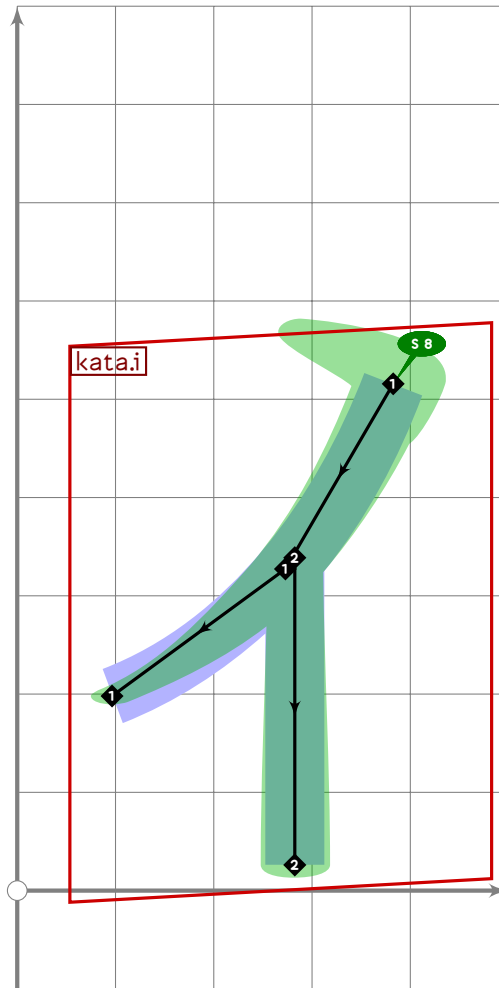
```

U+FF67
tsuku.uniFF67

FF



```
777 % katakana "small a"
778 begintsuglyph("uniFF67",103);
779   tsu_xform(tsu_xf.smallkana)(kata.a);
780   tsu_render;
781 endtsuglyph;
782
```

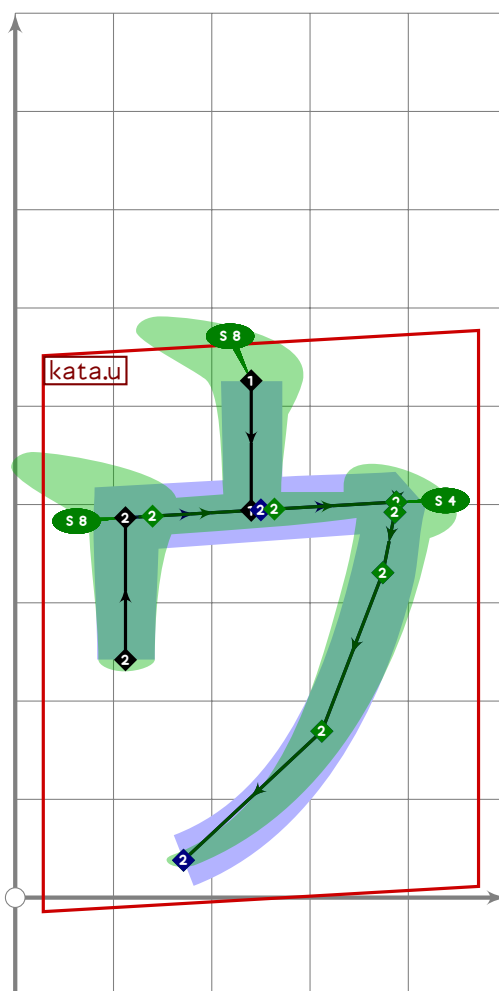


FF

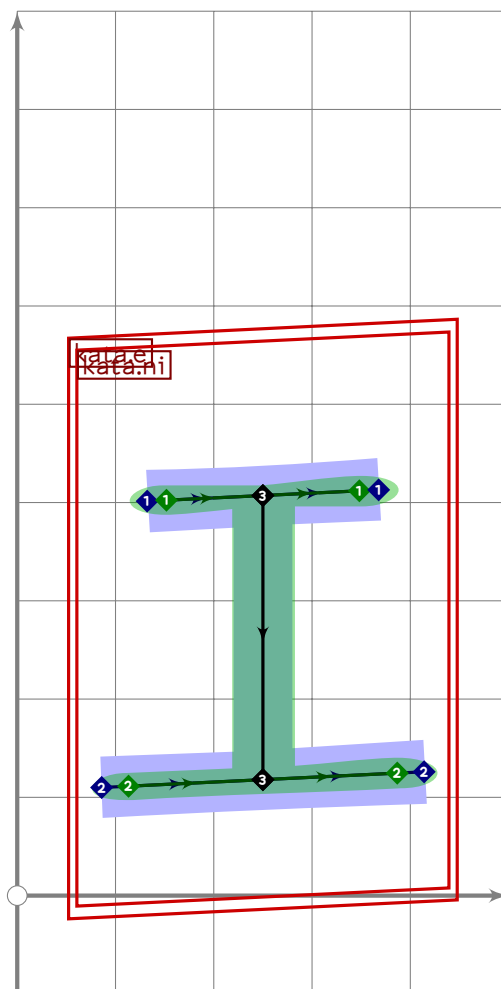
```
783 % katakana "small i"  
784 beginsuglyph("uniFF68";104);  
785   tsu_xform(tsu_xf.smallkana)(kata.i);  
786   tsu_render;  
787 endsuglyph;  
788
```

U+FF69
tsuku.uniFF69

FF



```
789 % katakana "small u"
790 beginsuglyph("uniFF69";105);
791   tsu_xform(tsu_xf.smallkana)(kata.u);
792   tsu_render;
793 endsuglyph;
794
```



FF

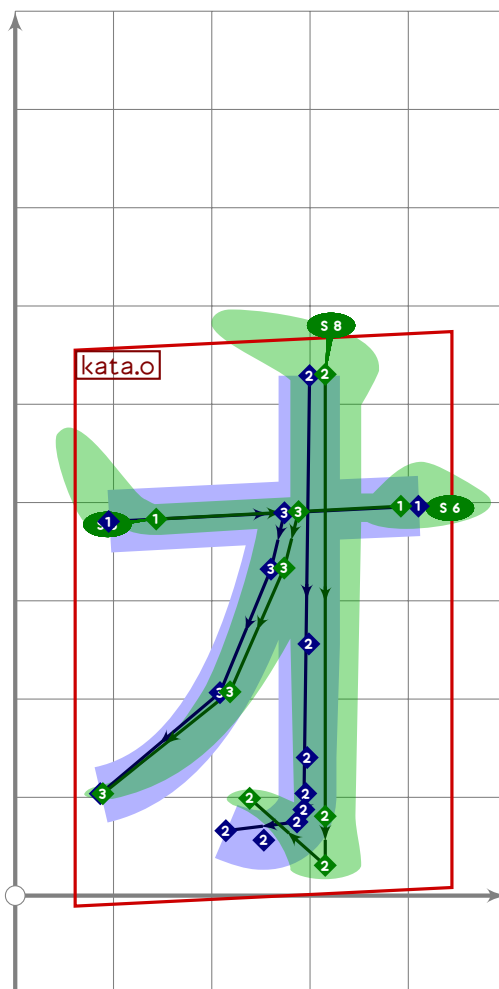
```

795 % katakana "small e"
796 begint Suglyph("uniFF6A",106);
797   tsu_xform(tsu_xf.smallkana)(kata.e);
798   tsu_render;
799 endtsuglyph;
800

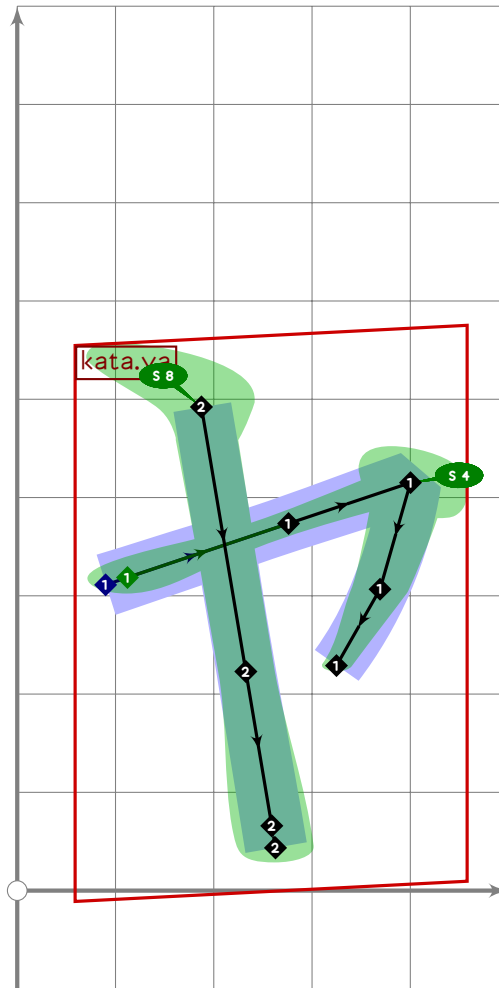
```

U+FF6B
tsuku.uniFF6B

FF



```
801 % katakana "small o"  
802 beginsuglyph("uniFF6B",107);  
803   tsu_xform(tsu_xf.smallkana)(kata.o);  
804   tsu_render;  
805 endsuglyph;  
806
```



FF

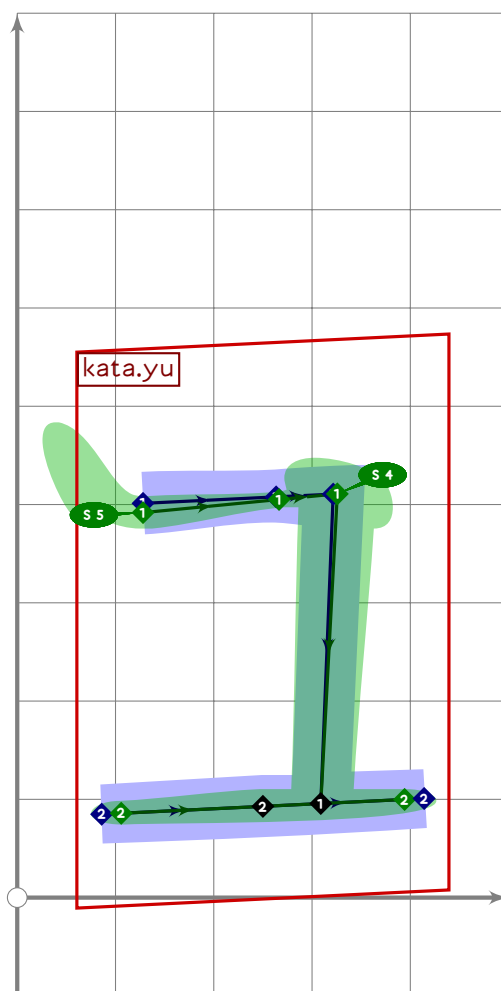
```

807 % katakana "small ya"
808 begintsuglyph("uniFF6C",108);
809 tsu_xform(tsu_xf.smallkana)(kata.ya);
810 tsu_render;
811 endtsuglyph;
812

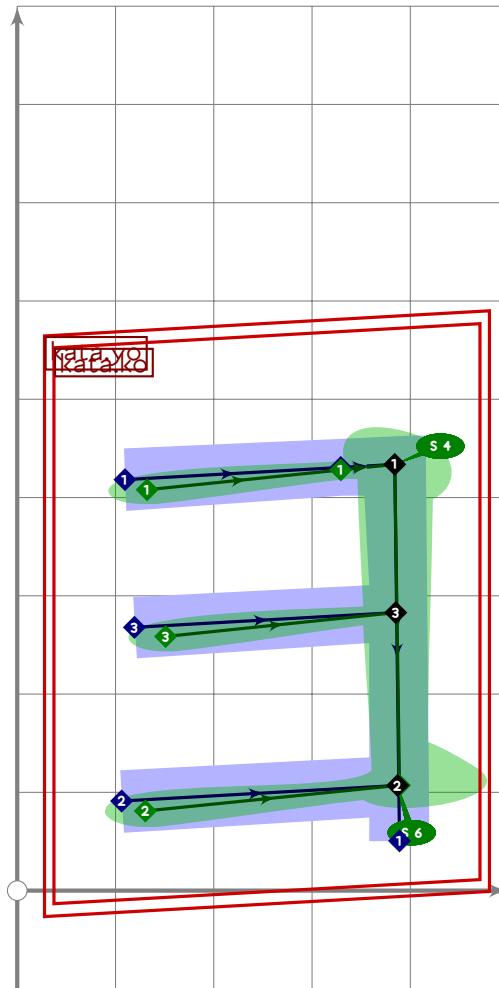
```


U+FF6D
tsuku.uniFF6D

FF



```
813 % katakana "small yu"  
814 begintsuglyph("uniFF6D",109);  
815   tsu_xform(tsu_xf.smallkana)(kata.yu);  
816   tsu_render;  
817 endtsuglyph;  
818
```



FF

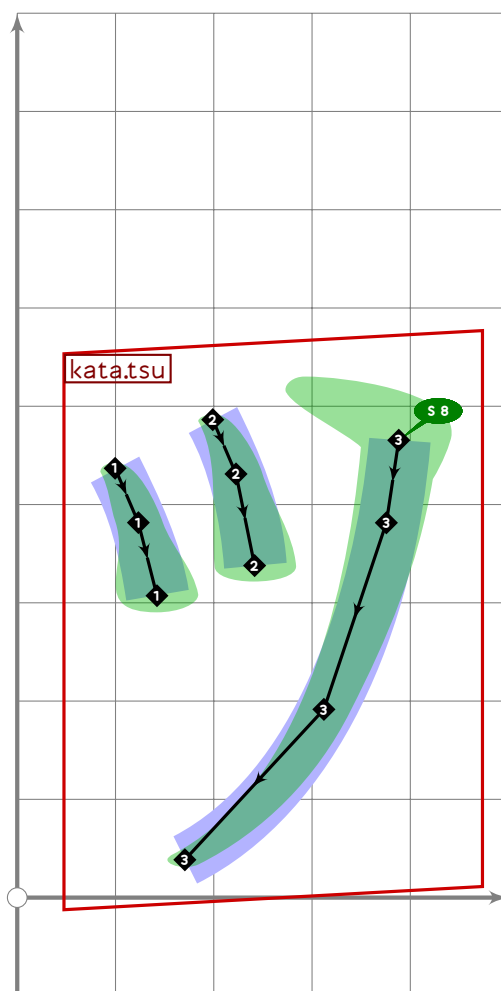
```

819 % katakana "small yo"
820 begint Suglyph("uniFF6E",110);
821   tsu_xform(tsu_xf.smallkana)(kata.yo);
822   tsu_render;
823 endtsuglyph;
824

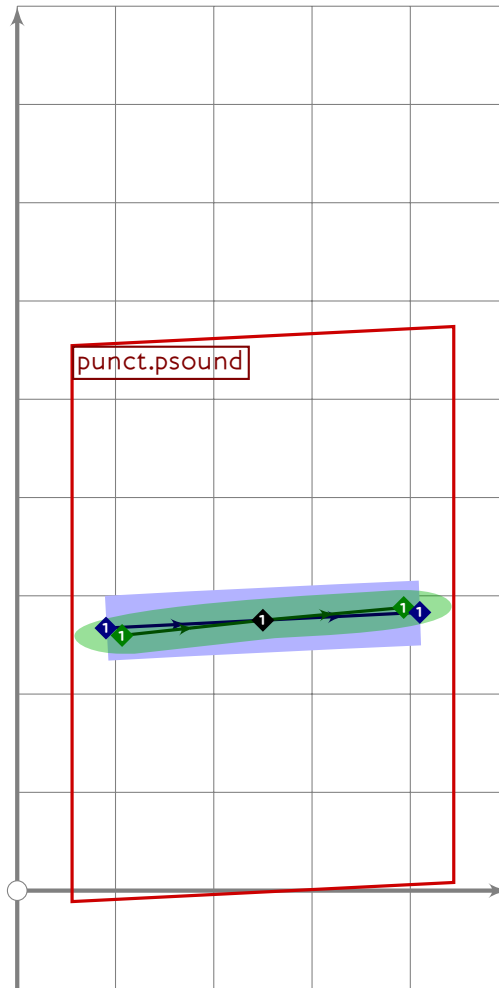
```

U+FF6F
tsuku.uniFF6F

FF



```
825 % katakana "small tsu"
826 begint Suglyph("uniFF6F",111);
827   tsu_xform(tsu_xf.smallkana)(kata.tsu);
828   tsu_render;
829 endtsuglyph;
830
```

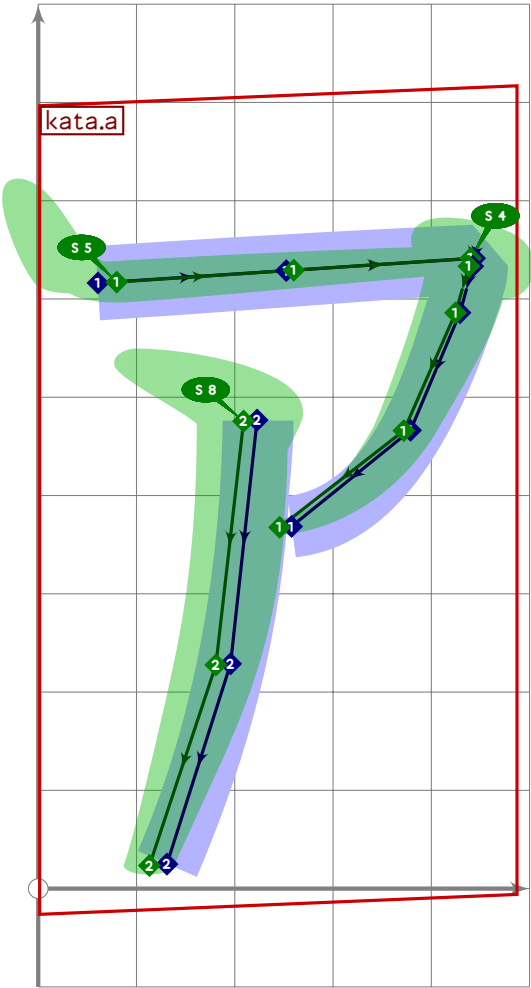


FF

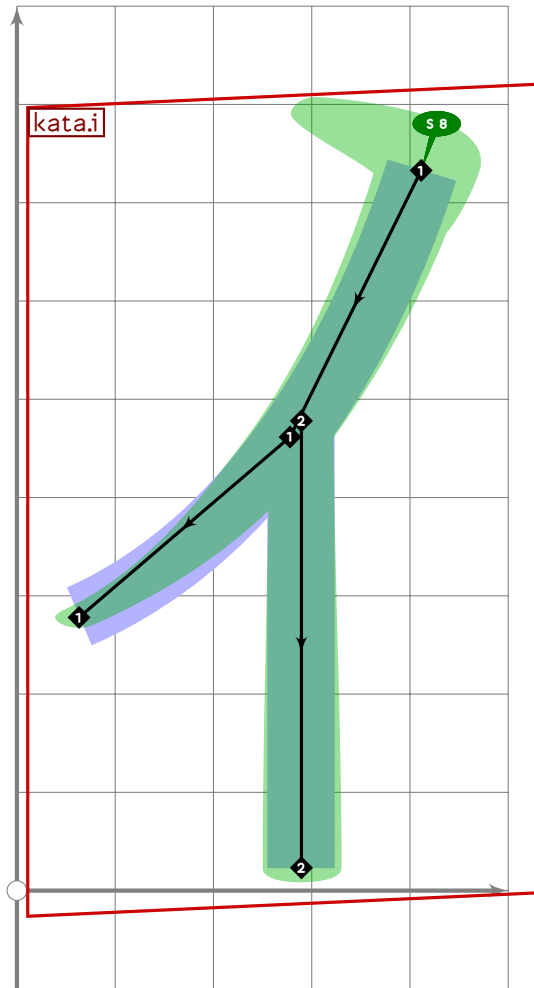
```
831 % hira/kata "prolonged sound mark"
832 beginsuglyph("uniFF70",112);
833   tsu_xform(tsu_xf.smallkana)(punct.psound);
834   tsu_render;
835 endsuglyph;
836
```

U+FF71
tsuku.uniFF71

FF



```
837 % katakana "a"  
838 begint Suglyph("uniFF71";113);  
839 kata.a;  
840 tsu_render;  
841 endtsuglyph;  
842
```

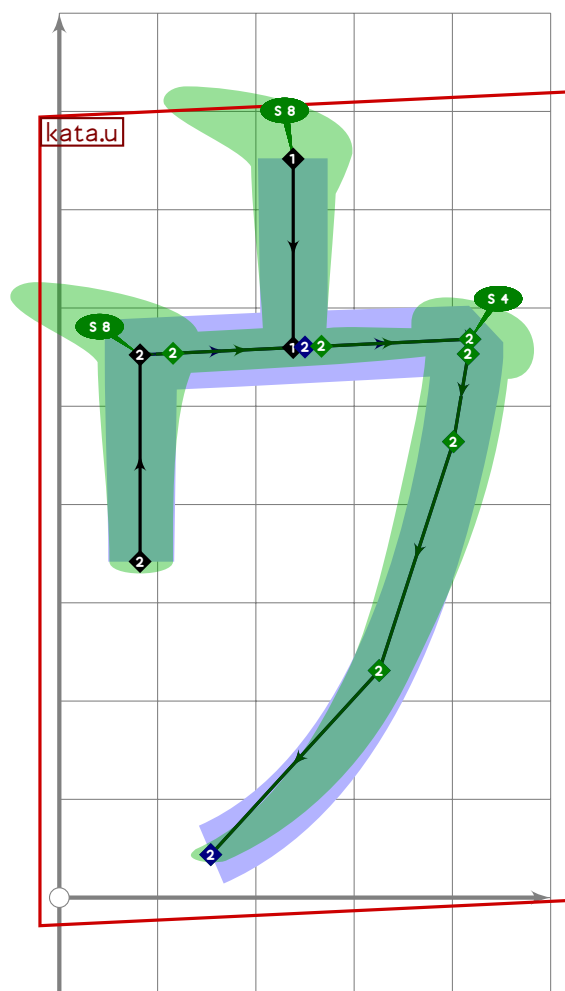


FF

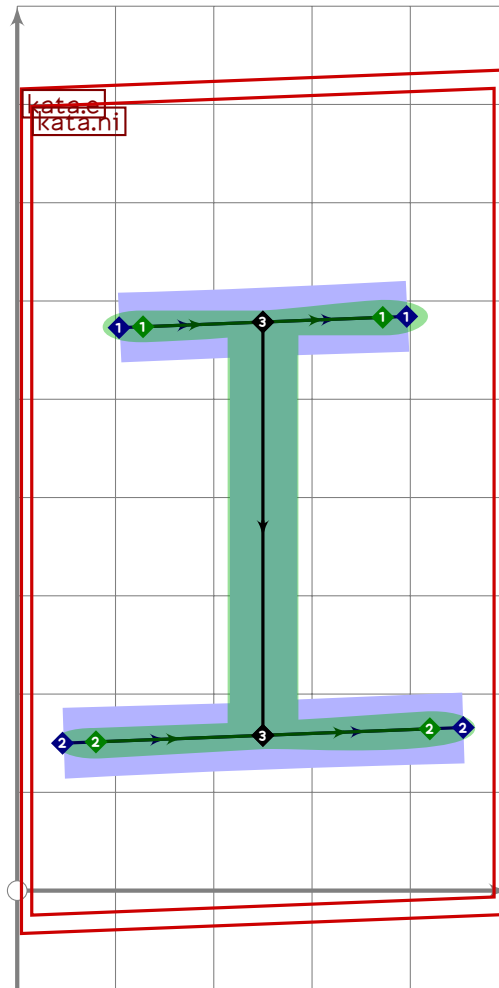
```
843 % katakana "i"  
844 begint Suglyph("uniFF72";114);  
845   kata.i;  
846   tsu_render;  
847 endtsuglyph;  
848
```

U+FF73
tsuku.uniFF73

FF



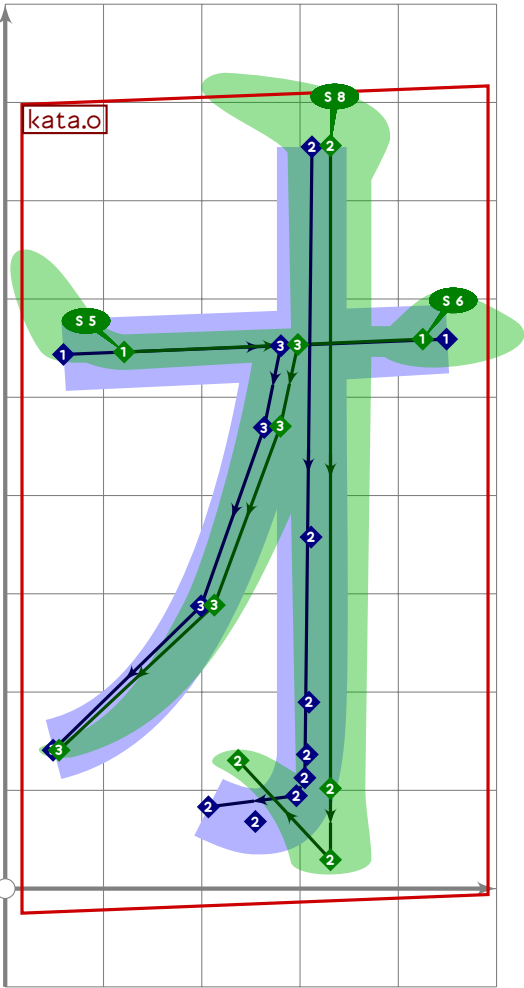
```
849 % katakana "u"  
850 begint Suglyph("uniFF73";115);  
851   kata.u;  
852   tsu_render;  
853 endtsuglyph;  
854
```



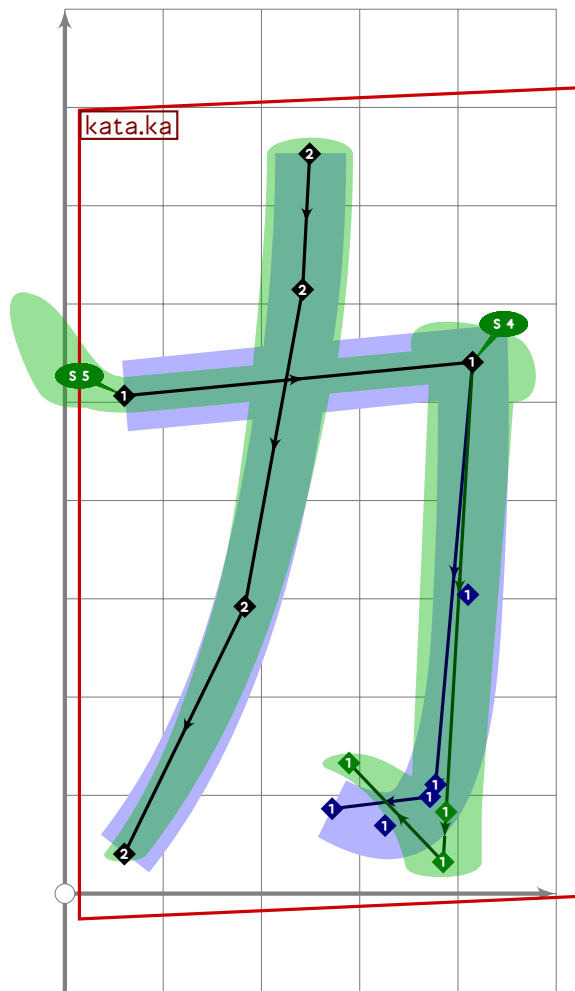
```
855 % katakana "e"  
856 beginsuglyph("uniFF74";116);  
857   kata.e;  
858   tsu_render;  
859 endsuglyph;  
860
```


U+FF75
tsuku.uniFF75

FF



```
861 % katakana "ッ"  
862 begint Suglyph("uniFF75";117);  
863   kata.o;  
864   tsu_render;  
865 endtsuglyph;  
866
```



FF

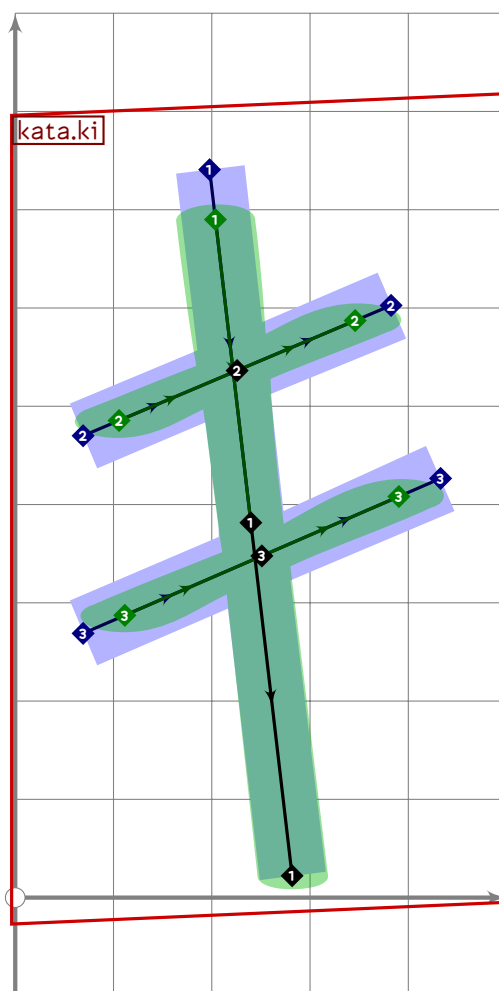
```

867 % katakana "ka"
868 begint Suglyph("uniFF76";118);
869   kata.ka;
870   tsu_render;
871 endtsuglyph;
872

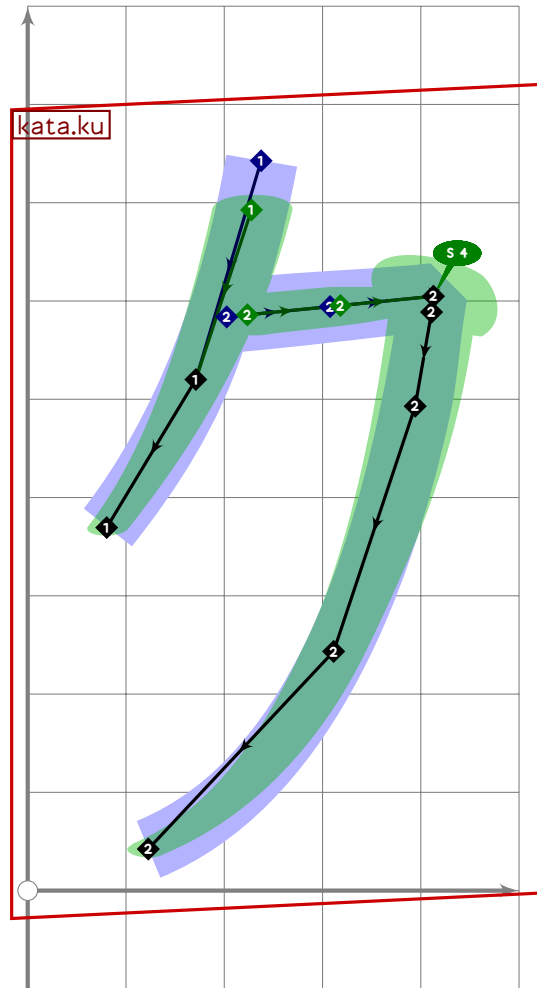
```

U+FF77
tsuku.uniFF77

FF



```
873 % katakana "ki"  
874 begint Suglyph("uniFF77",119);  
875   kata.ki;  
876   tsu_render;  
877 endtsuglyph;  
878
```

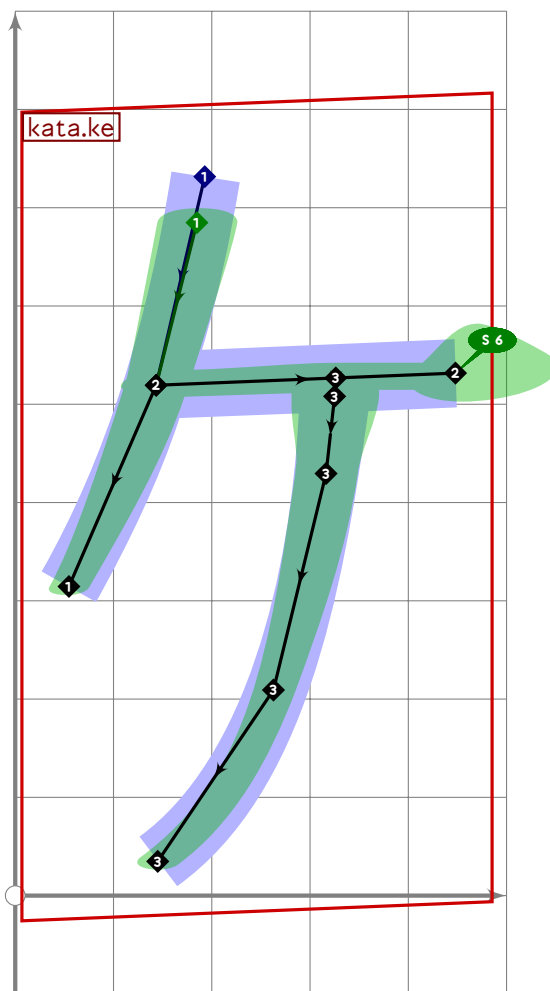


FF

```
879 % katakana "ku"  
880 begint Suglyph("uniFF78",120);  
881   kata.ku;  
882   tsu_render;  
883 endtsuglyph;  
884
```

U+FF79
tsuku.uniFF79

FF



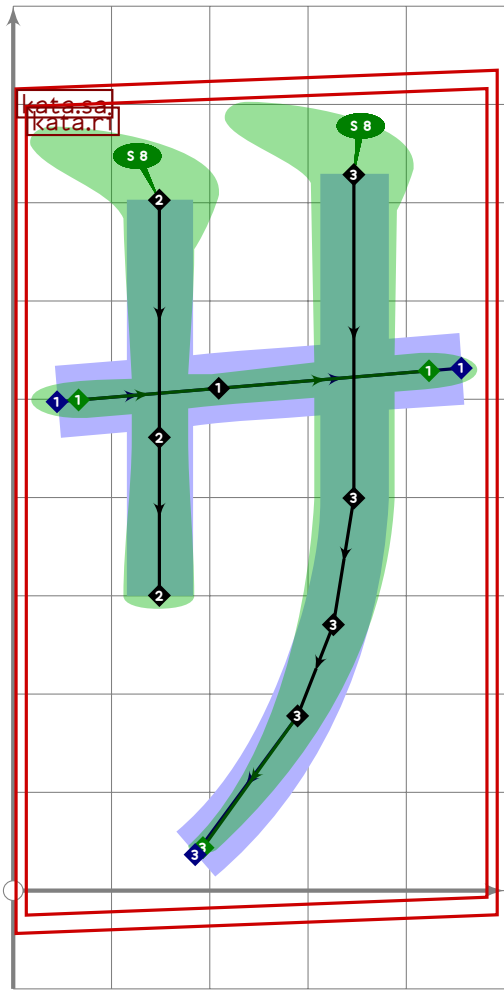
```
885 % katakana "ke"  
886 begint Suglyph("uniFF79";121);  
887   kata.ke;  
888   tsu_render;  
889 endtsuglyph;  
890
```

The diagram shows a 2D coordinate system with a grid. A red line is drawn across the top and bottom of the grid. A path is shown with nodes and shaded regions. The path starts at a blue diamond node labeled '1' on the left, moves right to a green diamond node labeled '1', then up to a black diamond node labeled '1'. From this node, the path goes down to a black diamond node labeled '2', then left to a green diamond node labeled '2', and finally left to a blue diamond node labeled '2'. Shaded regions are present: a light blue region around the horizontal segments and a light green region around the vertical segment. Labels 's 4' and 's 6' are placed near the top and bottom nodes respectively. A box in the top left corner contains the text 'kata.ko'.

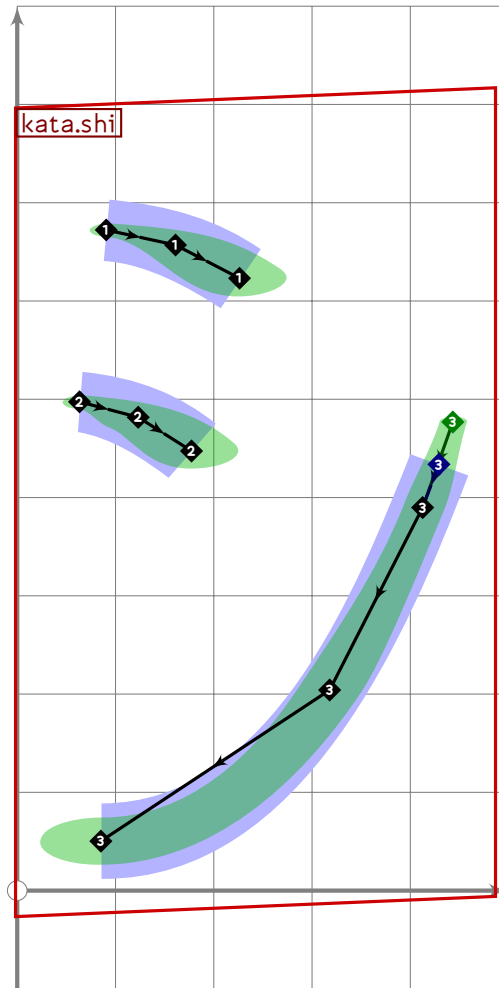
FF

U+FF7B
tsuku.uniFF7B

FF



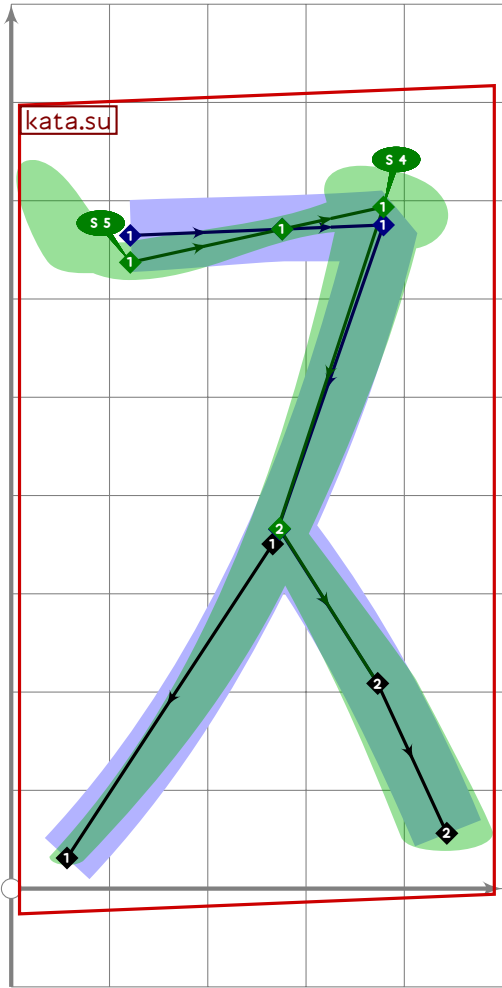
```
897 % katakana "sa"
898 begintsuglyph("uniFF7B",123);
899 kata.sa;
900 tsu_render;
901 endtsuglyph;
902
```



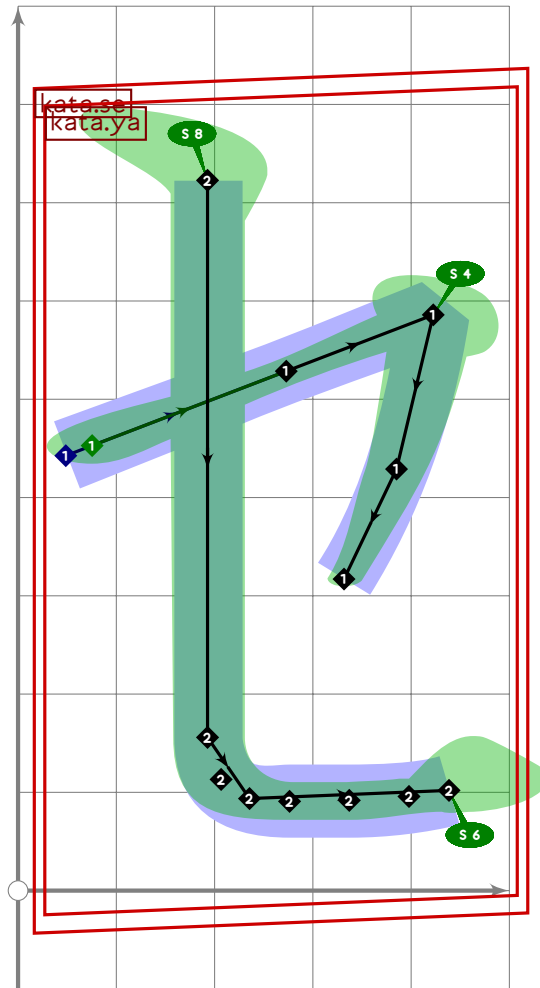
```
903 % katakana "shi"  
904 begint Suglyph("uniFF7C",124);  
905   kata.shi;  
906   tsu_render;  
907 endtsuglyph;  
908
```


U+FF7D
tsuku.uniFF7D

FF



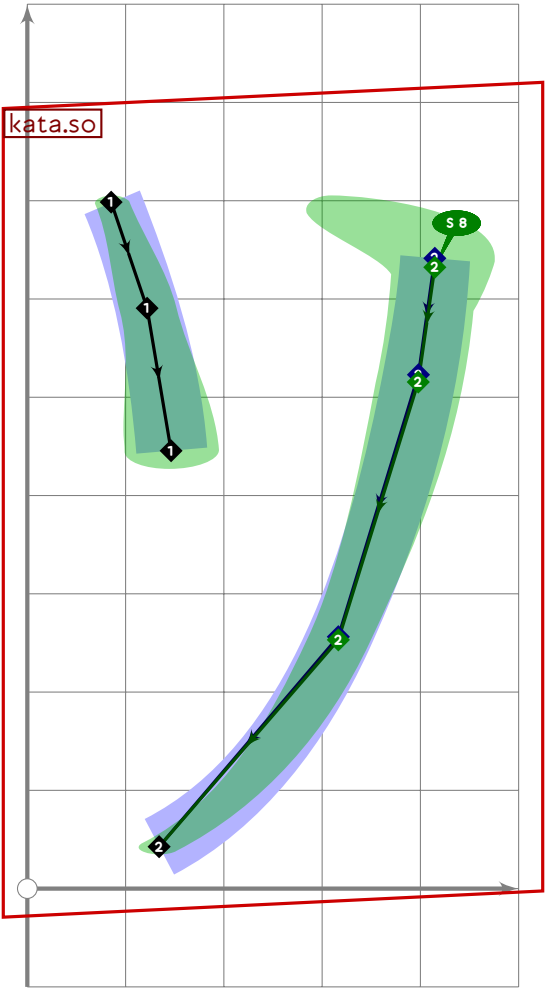
```
909 % katakana "su"
910 begint Suglyph("uniFF7D";125);
911   kata.su;
912   tsu_render;
913 endtsuglyph;
914
```



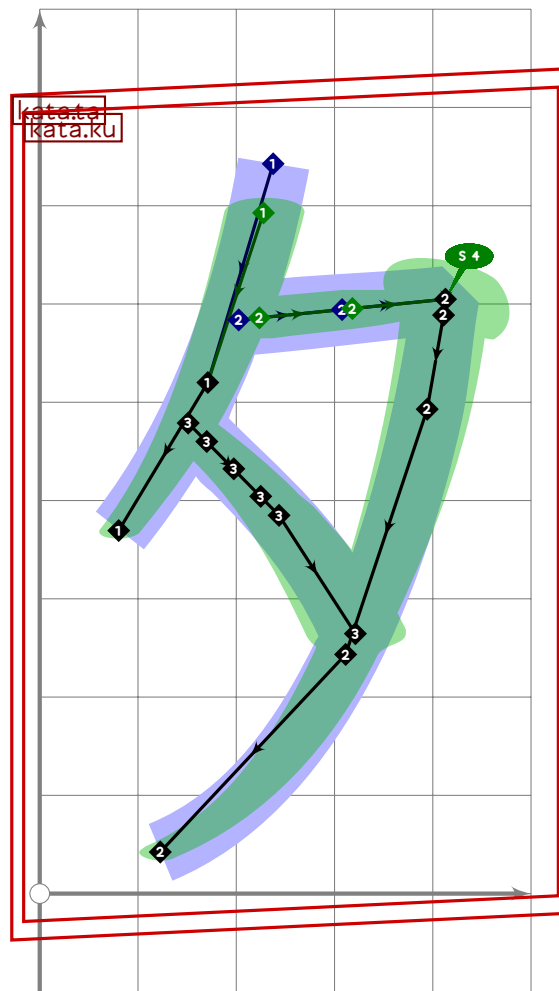
```
915 % katakana "se"  
916 begint Suglyph("uniFF7E",126);  
917 kata.se;  
918 tsu_render;  
919 endtsuglyph;  
920
```

U+FF7F
tsuku.uniFF7F

FF



```
921 % katakana "so"  
922 begint Suglyph("uniFF7F";127);  
923   kata.so;  
924   tsu_render;  
925 endtsuglyph;  
926
```

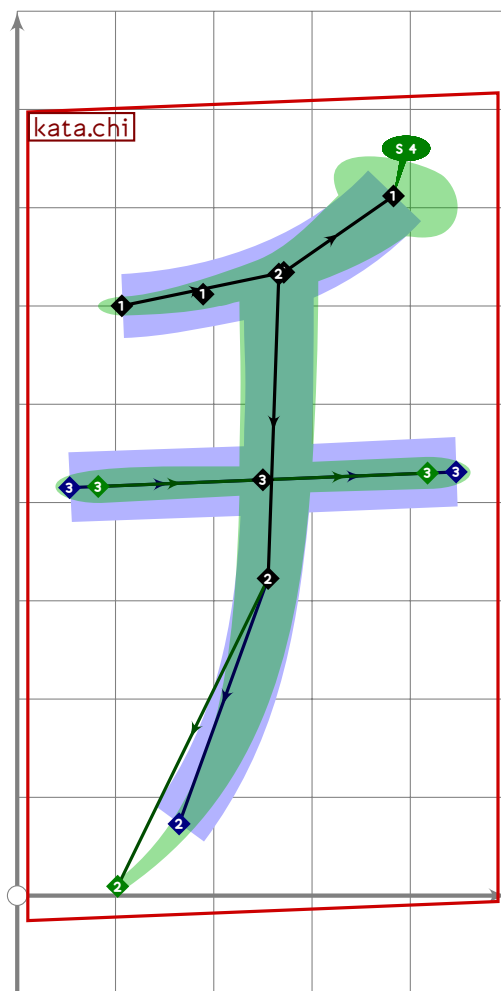


FF

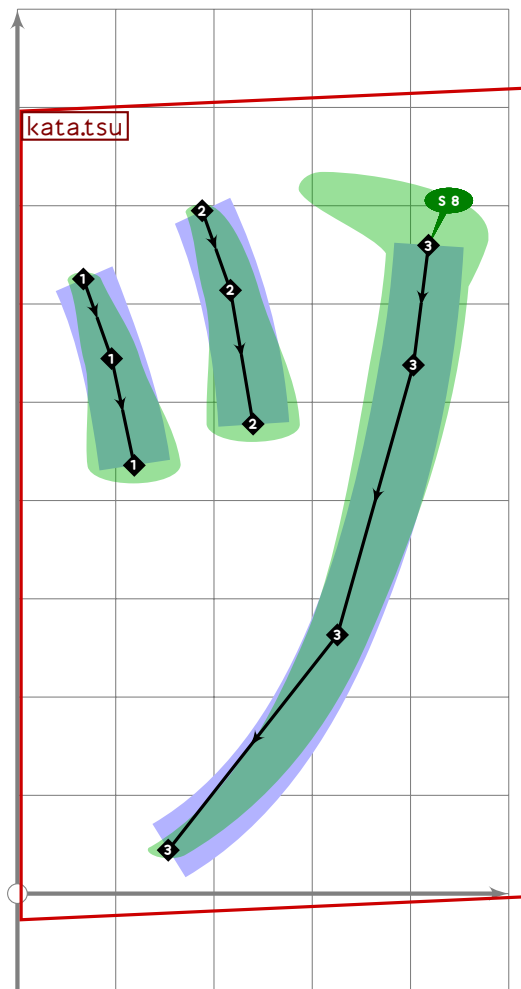
```
927 % katakana "ta"  
928 beginsuglyph("uniFF80",128);  
929   katata;  
930   tsu_render;  
931 endsuglyph;  
932
```

U+FF81
tsuku.uniFF81

FF



```
933 % katakana "chi"  
934 begint Suglyph("uniFF81";129);  
935   kata.chi;  
936   tsu_render;  
937 endtsuglyph;  
938
```

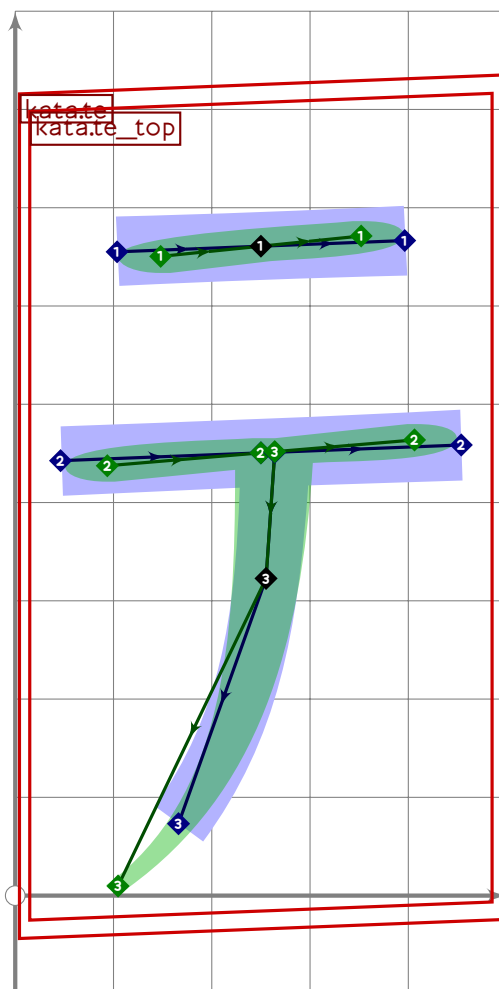


FF

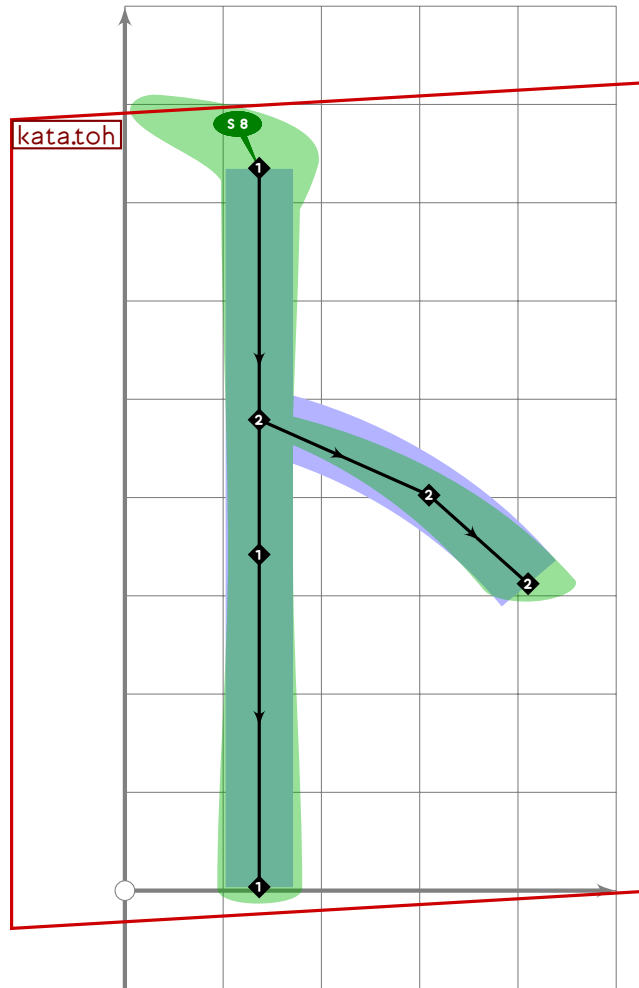
```
939 % katakana "tsu"  
940 begint Suglyph("uniFF82",130);  
941   kata.tsu;  
942   tsu_render;  
943 endtsuglyph;  
944
```

U+FF83
tsuku.uniFF83

FF



```
945 % katakana "te"
946 beginsuglyph("uniFF83";131);
947   katate;
948   tsu_render;
949 endsuglyph;
950
```

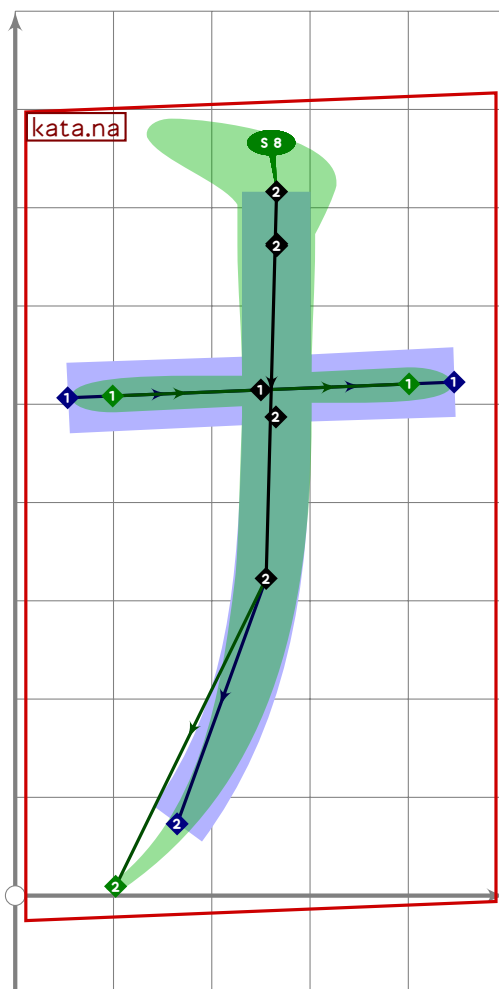


FF

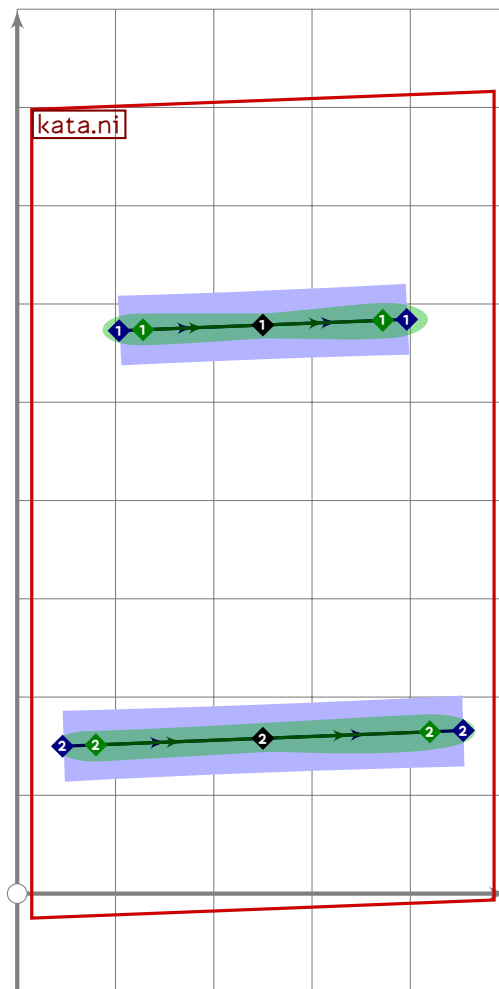
```
951 % katakana "to"
952 beginsuglyph("uniFF84",132);
953   kata.toh;
954   tsu_render;
955 endsuglyph;
956
```


U+FF85
tsuku.uniFF85

FF



```
957 % katakana "na"  
958 begint Suglyph("uniFF85";133);  
959   kata.na;  
960   tsu_render;  
961 endtsuglyph;  
962
```

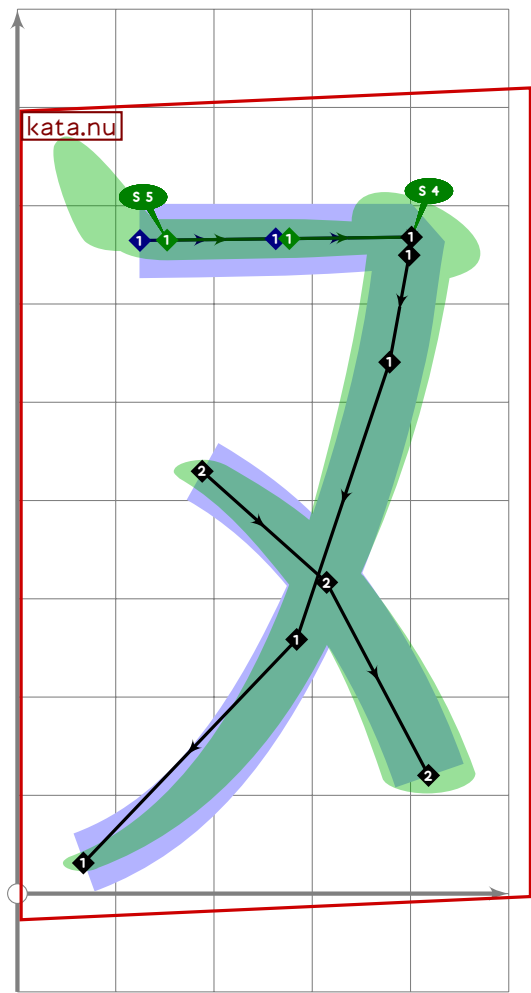


FF

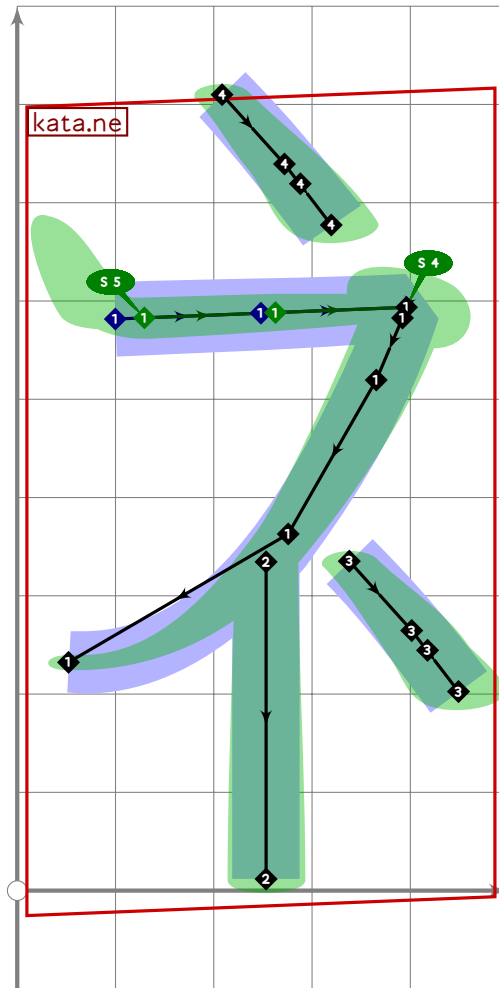
```
963 % katakana "ni"  
964 begint Suglyph("uniFF86",134);  
965   kata.ni;  
966   tsu_render;  
967 endtsuglyph;  
968
```

U+FF87
tsuku.uniFF87

FF



```
969 % katakana "nu"  
970 begint Suglyph("uniFF87",135);  
971   kata.nu;  
972   tsu_render;  
973 endtsuglyph;  
974
```



FF

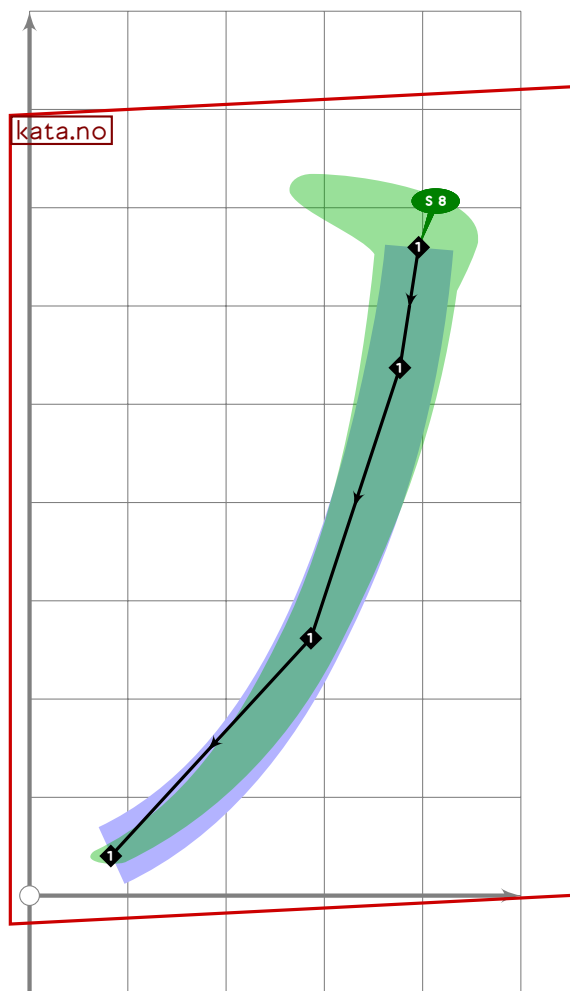
```

975 % katakana "ne"
976 begint Suglyph("uniFF88",136);
977   kata.ne;
978   tsu_render;
979 endtsuglyph;
980

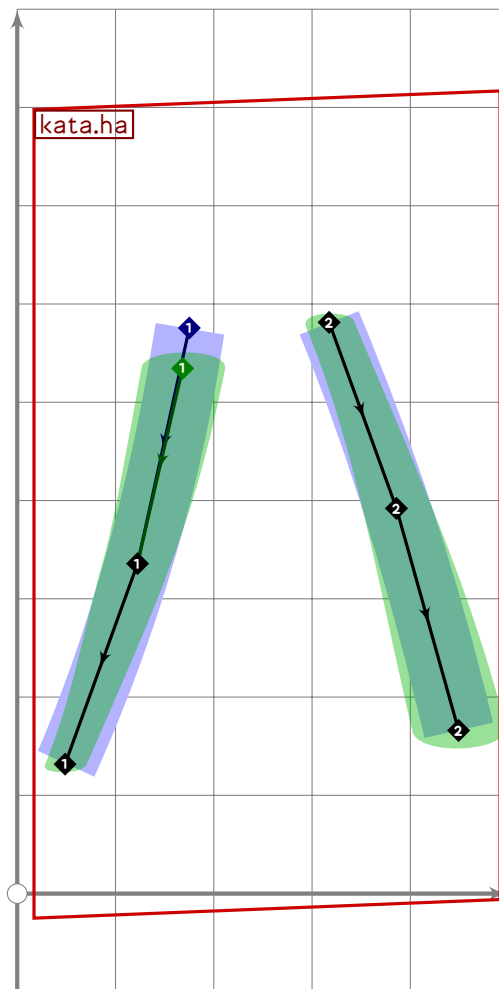
```

U+FF89
tsuku.uniFF89

FF



```
981 % katakana "no"  
982 beginsuglyph("uniFF89",137);  
983   kata.no;  
984   tsu_render;  
985 endsuglyph;  
986
```

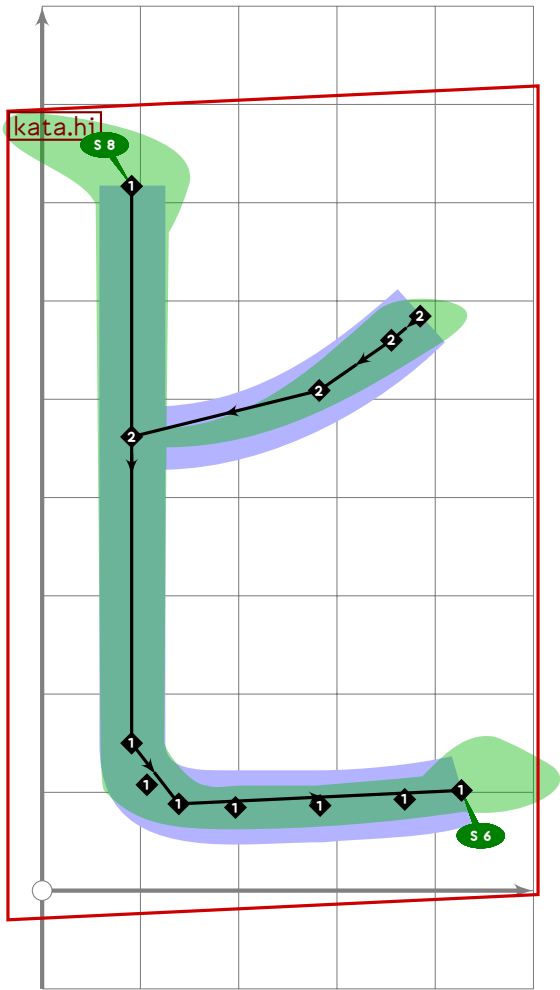


FF

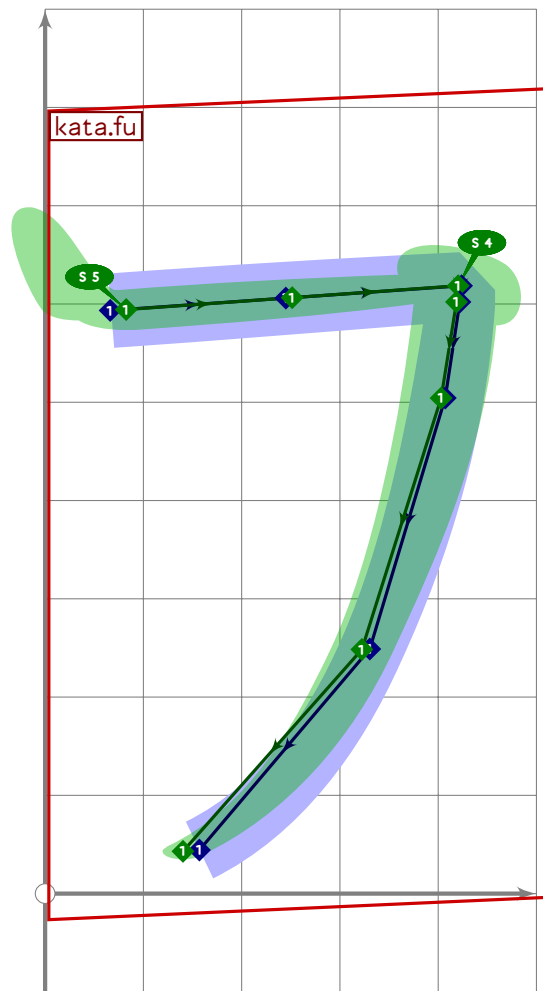
```
987 % katakana "ha"  
988 begint Suglyph("uniFF8A";138);  
989   kata.ha;  
990   tsu_render;  
991 endtsuglyph;  
992
```

U+FF8B
tsuku.uniFF8B

FF



```
993 % katakana "hi"  
994 begint Suglyph("uniFF8B",139);  
995   kata.hi;  
996   tsu_render;  
997 endtsuglyph;  
998
```

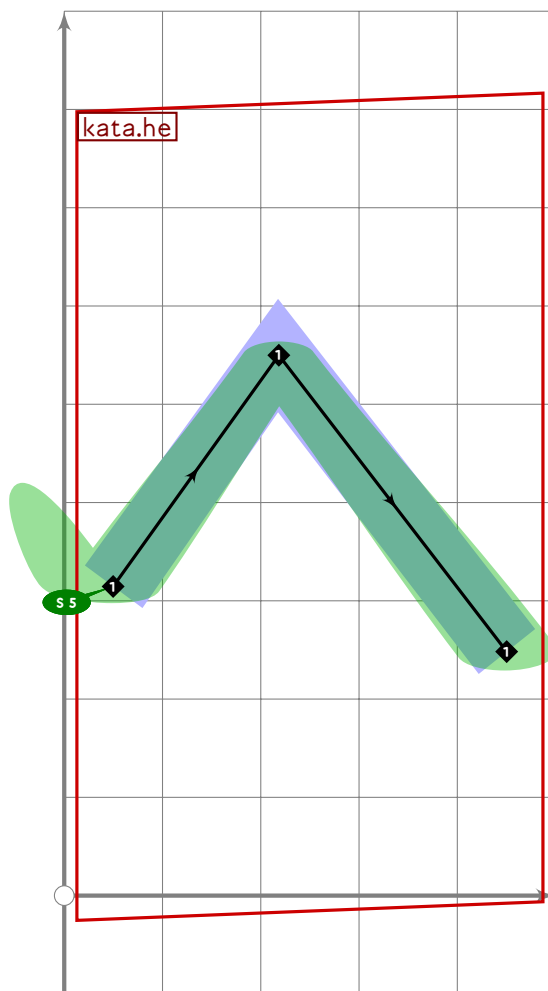


```
999 % katakana "fu"  
1000 begint Suglyph("uniFF8C";140);  
1001 kata.fu;  
1002 tsu_render;  
1003 endtsuglyph;  
1004
```

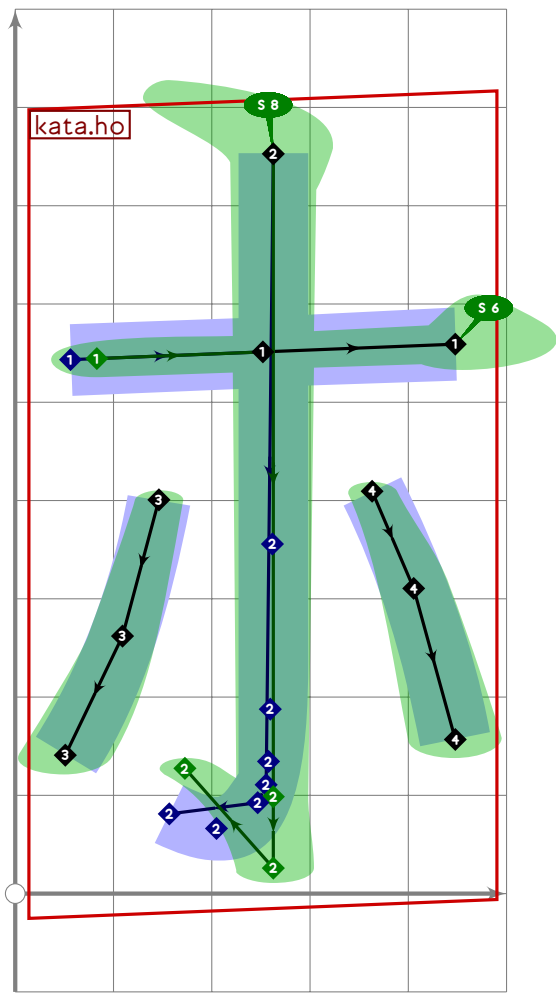
FF

U+FF8D
tsuku.uniFF8D

FF



```
1005 % katakana "he"  
1006 begint Suglyph("uniFF8D";141);  
1007   kata.he;  
1008   tsu_render;  
1009 endtsuglyph;  
1010
```

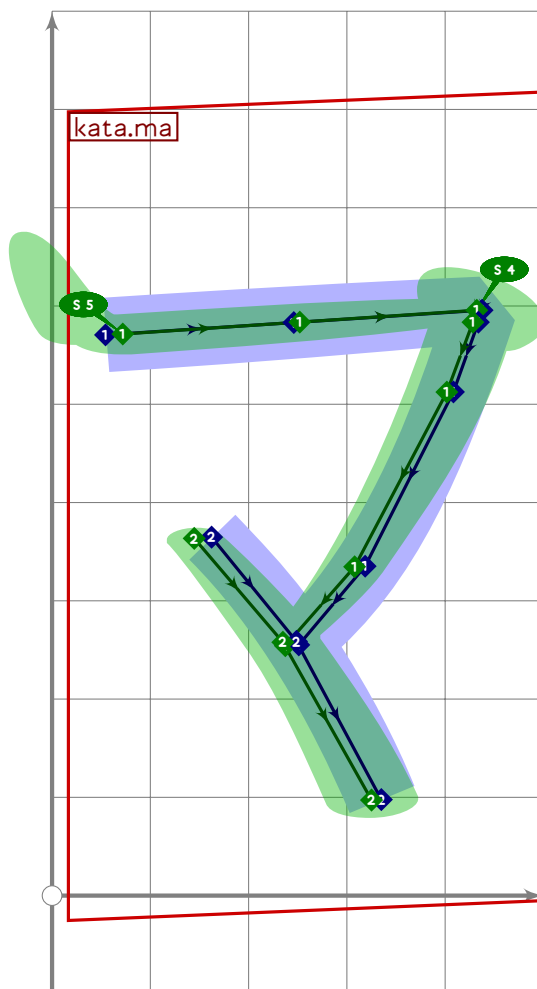


FF

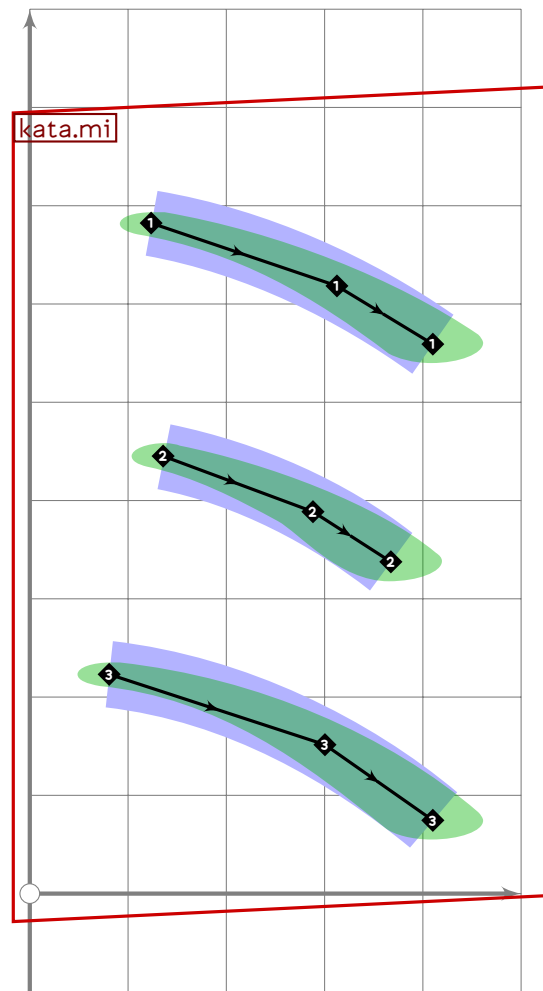
```
1011 % katakana "ho"  
1012 beginsuglyph("uniFF8E",142);  
1013   kata.ho;  
1014   tsu_render;  
1015 endsuglyph;  
1016
```

U+FF8F
tsuku.uniFF8F

FF



```
1017 % katakana "ma"  
1018 begint Suglyph("uniFF8F",143);  
1019   kata.ma;  
1020   tsu_render;  
1021 endtsuglyph;  
1022
```

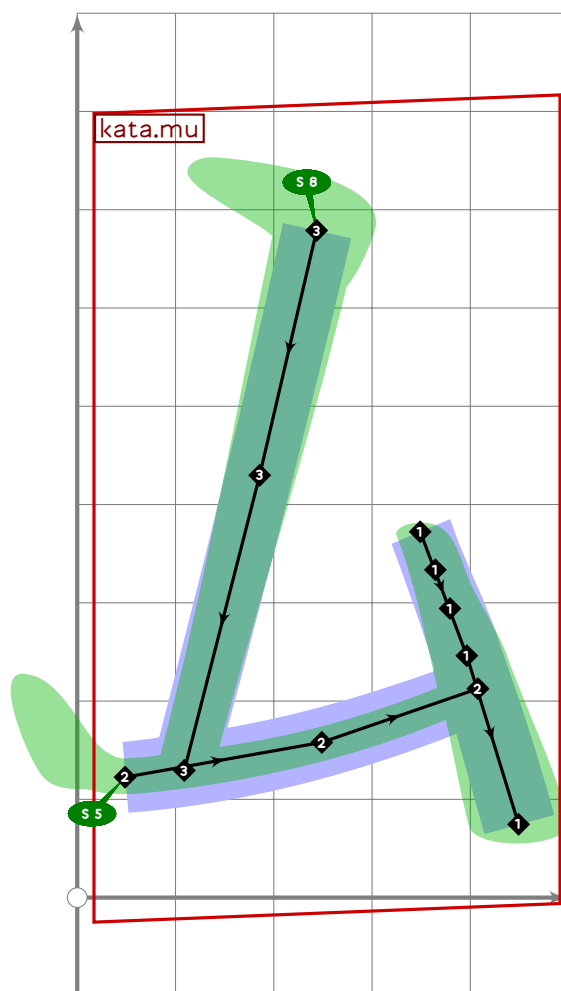


FF

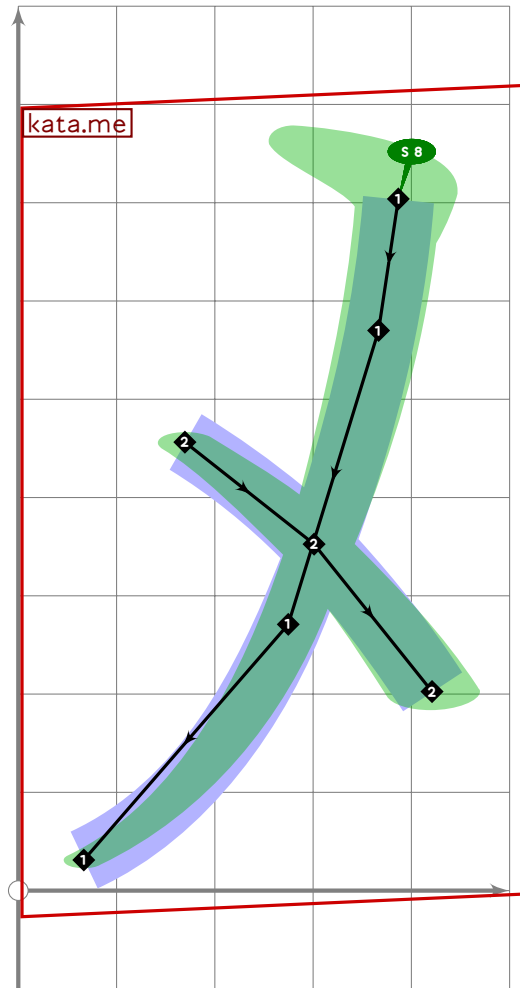
```
1023 % katakana "mi"  
1024 begintsuglyph("uniFF90",144);  
1025   kata.mi;  
1026   tsu_render;  
1027 endsuglyph;  
1028
```

U+FF91
tsuku.uniFF91

FF



```
1029 % katakana "mu"  
1030 begintsuglyph("uniFF91";145);  
1031   kata.mu;  
1032   tsu_render;  
1033 endtsuglyph;  
1034
```

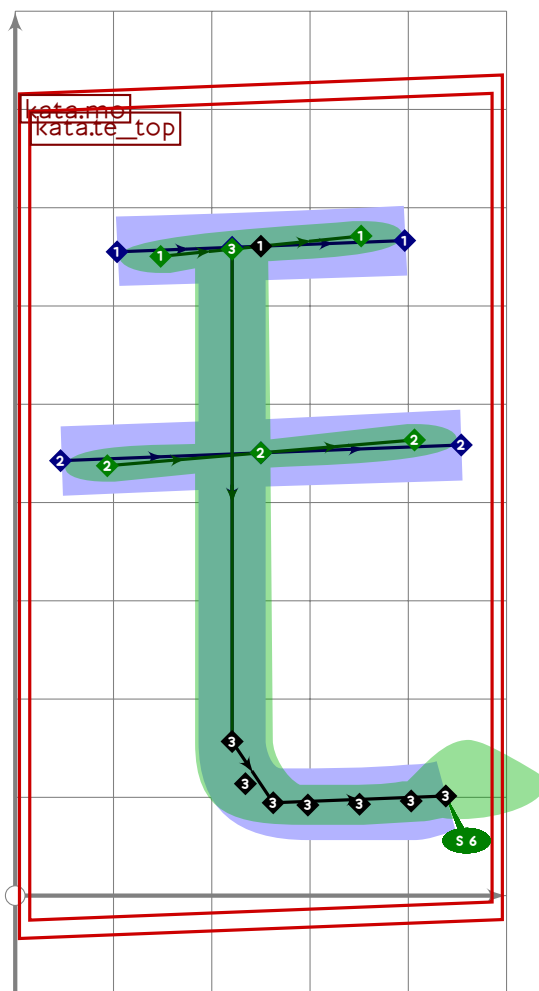


FF

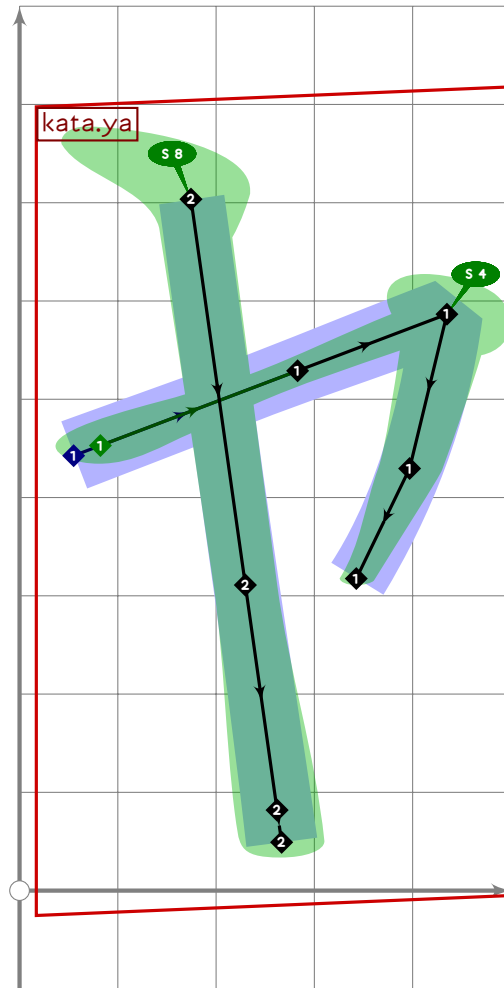
```
1035 % katakana "me"  
1036 begint Suglyph("uniFF92";146);  
1037   kata.me;  
1038   tsu_render;  
1039 endtsuglyph;  
1040
```

U+FF93
tsuku.uniFF93

FF



```
1041 % katakana "mo"
1042 beginsuglyph("uniFF93",147);
1043   kata.mo;
1044   tsu_render;
1045 endsuglyph;
1046
```

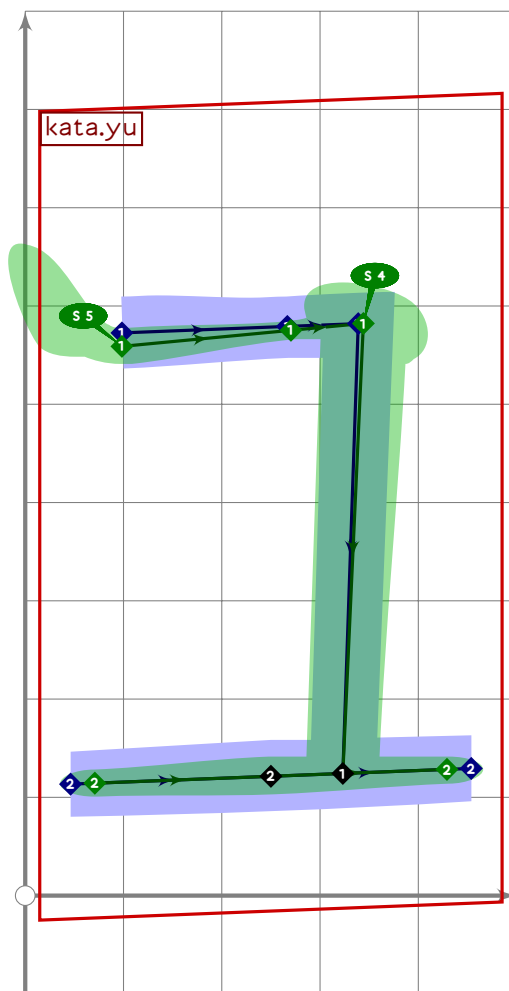


FF

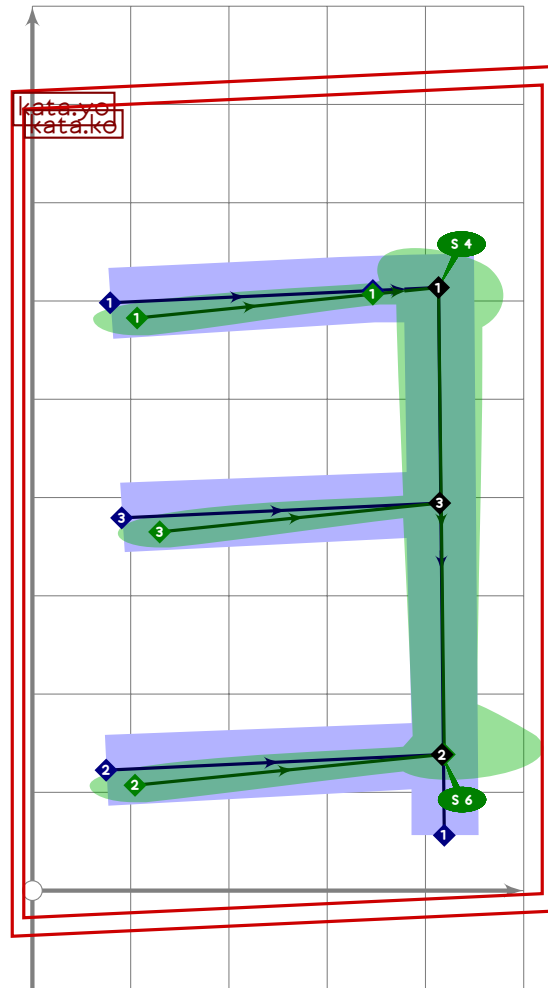
```
1047 % katakana "ya"
1048 begint Suglyph("uniFF94";148);
1049   kata.ya;
1050   tsu_render;
1051 endtsuglyph;
1052
```


U+FF95
tsuku.uniFF95

FF



```
1053 % katakana "yu"
1054 begint Suglyph("uniFF95",149);
1055   kata.yu;
1056   tsu_render;
1057 endtsuglyph;
1058
```

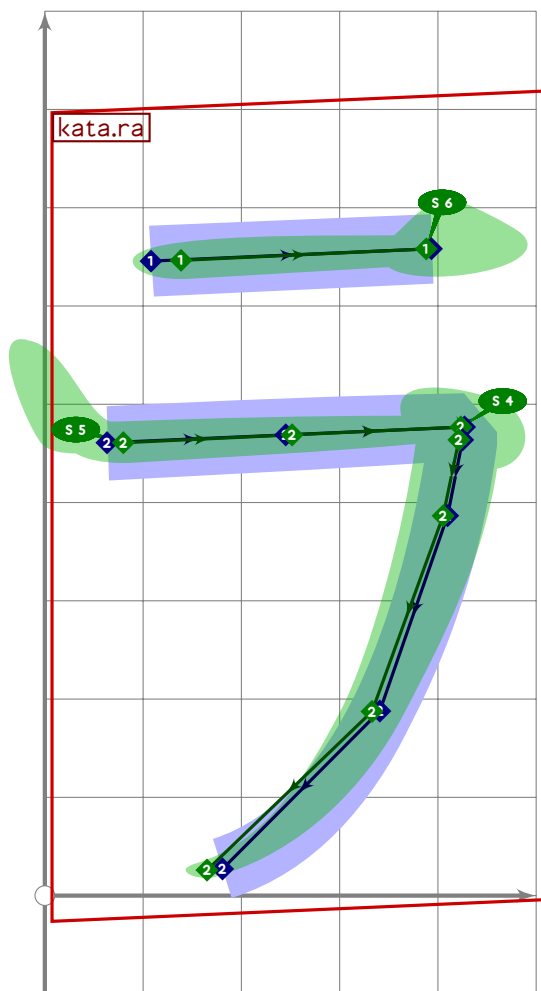


FF

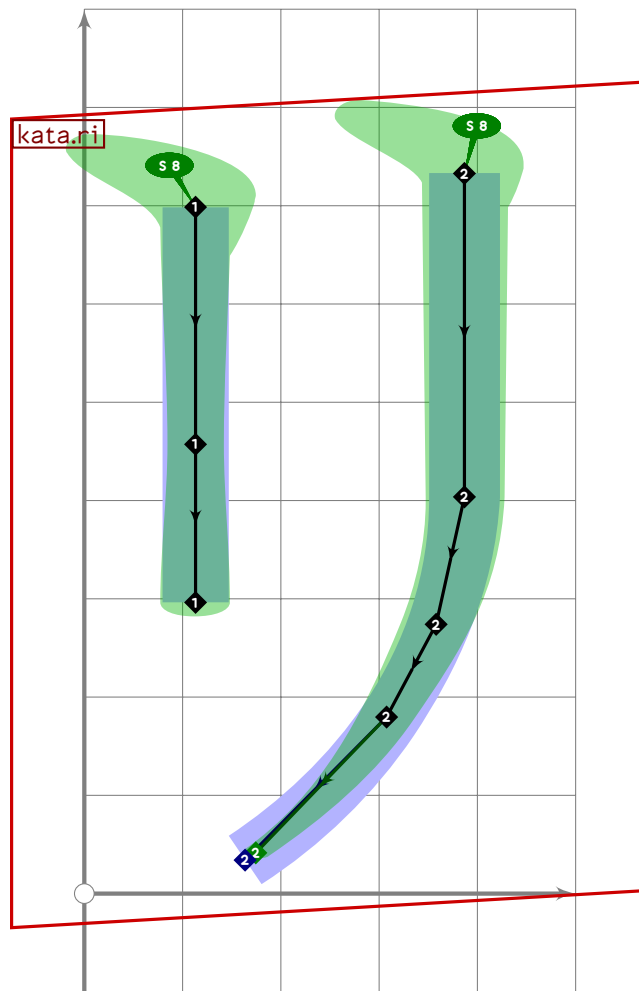
```
1059 % katakana "yo"  
1060 begint Suglyph("uniFF96",150);  
1061   kata.yo;  
1062   tsu_render;  
1063 endtsuglyph;  
1064
```

U+FF97
tsuku.uniFF97

FF



```
1065 % katakana "ra"  
1066 begint Suglyph("uniFF97";151);  
1067   kata.ra;  
1068   tsu_render;  
1069 endtsuglyph;  
1070
```

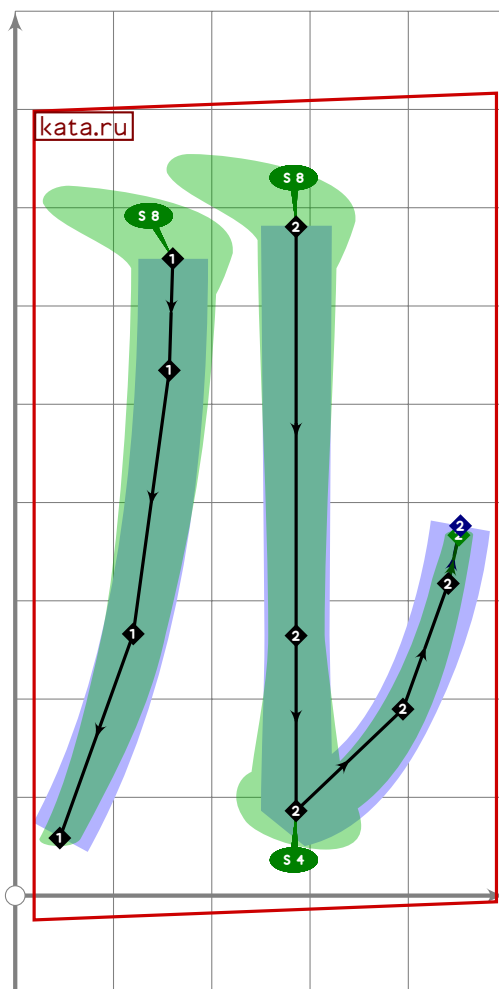


```
1071 % katakana "ri"  
1072 begintsuglyph("uniFF98",152);  
1073   kata.ri;  
1074   tsu_render;  
1075 endtsuglyph;  
1076
```

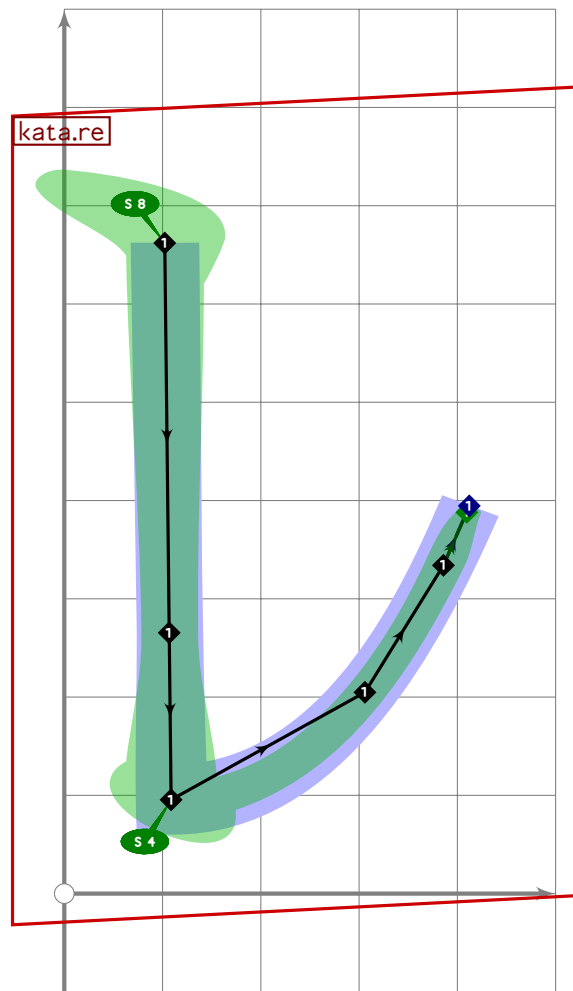
FF

U+FF99
tsuku.uniFF99

FF



```
1077 % katakana "ru"  
1078 begint Suglyph("uniFF99",153);  
1079   kata.ru;  
1080   tsu_render;  
1081 endtsuglyph;  
1082
```

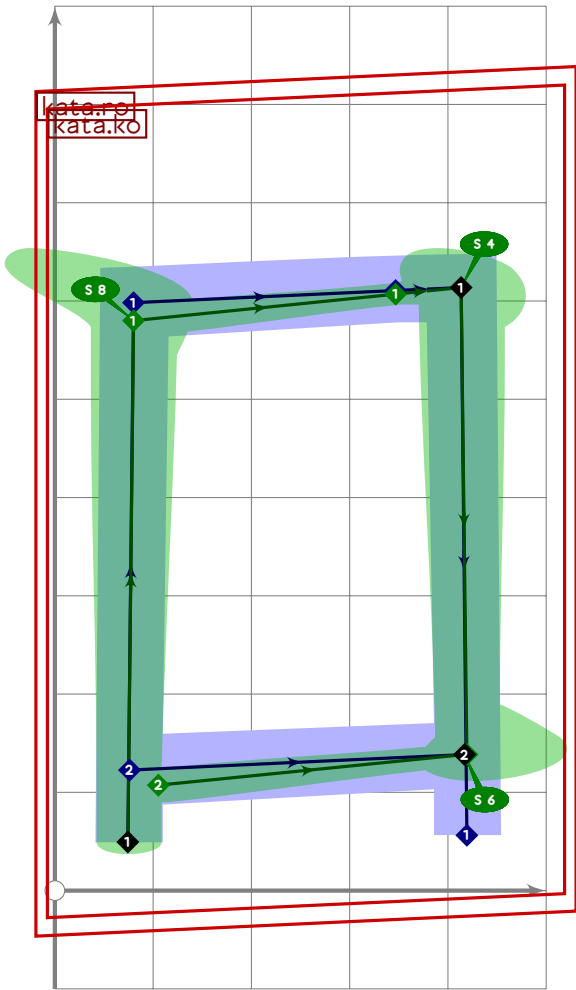


FF

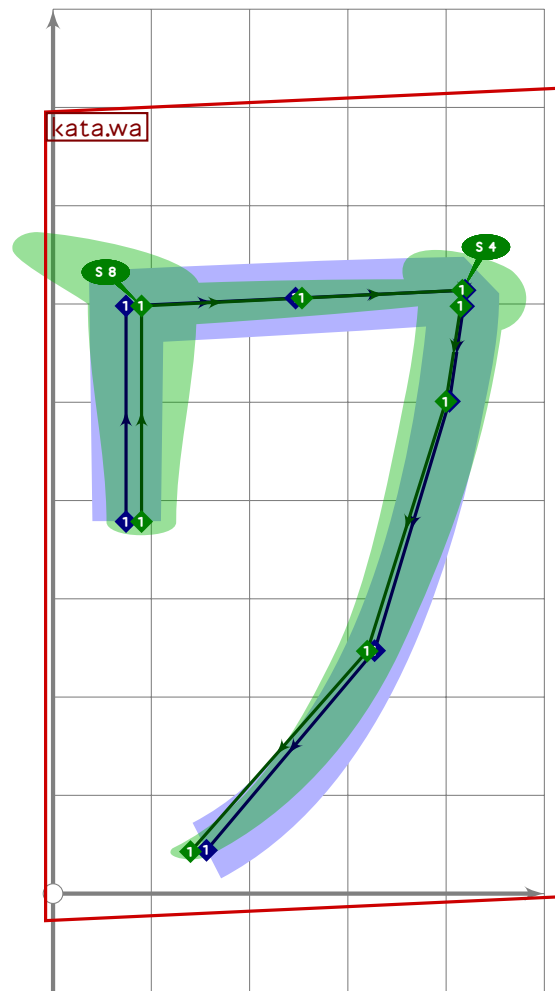
```
1083 % katakana "re"  
1084 begintsuglyph("uniFF9A",154);  
1085   kata.re;  
1086   tsu_render;  
1087 endtsuglyph;  
1088
```

U+FF9B
tsuku.uniFF9B

FF



```
1089 % katakana "ro"
1090 beginsuglyph("uniFF9B",155);
1091   kata.ro;
1092   tsu_render;
1093 endsuglyph;
1094
```

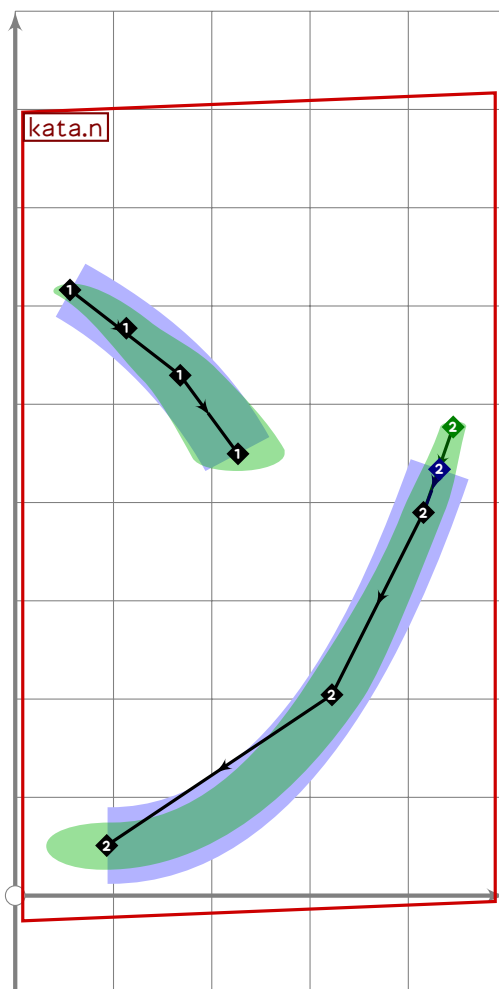


```
1095 % katakana "wa"  
1096 begint Suglyph("uniFF9C";156);  
1097   kata.wa;  
1098   tsu_render;  
1099 endtsuglyph;  
1100
```

FF

U+FF9D
tsuku.uniFF9D

FF



```
1101 % katakana "n"
1102 begint Suglyph("uniFF9D";157);
1103   kata.n;
1104   tsu_render;
1105 endtsuglyph;
1106
1107 % WARNING changing rescale setting
1108 tsu_rescale_native_zero;
1109
```

U+FF9E
tsuku.uniFF9E

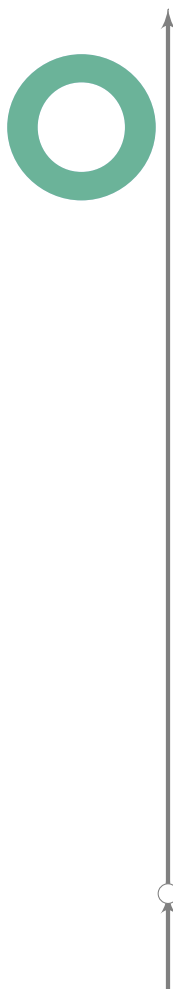


FF

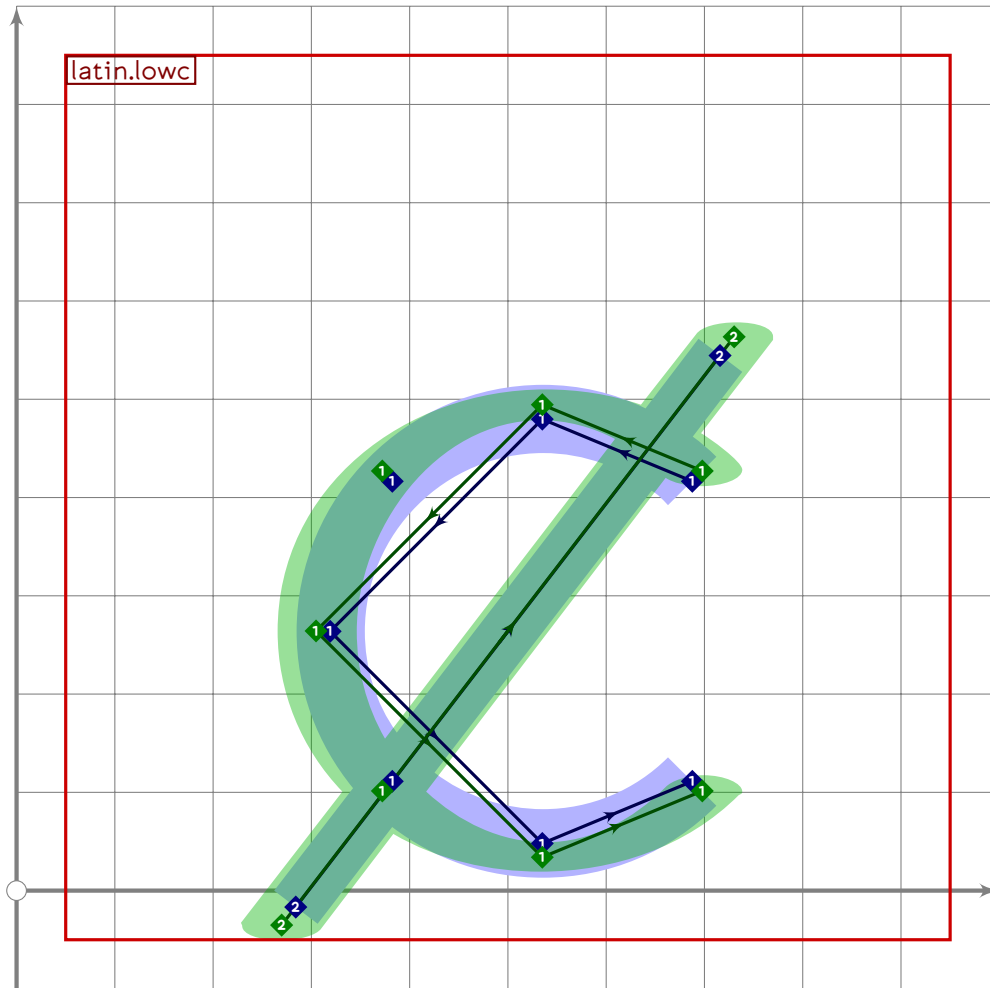
```
1110 % combining dakuten
1111 beginsuglyph("uniFF9E",158);
1112     dakuten(identity
1113         scaled 0.8 rotated 25 shifted (-130,780) xscaled 0.7);
1114     tsu_render;
1115 endsuglyph;
1116
```

U+FF9F
tsuku.uniFF9F

FF



```
1117 % combining handakuten
1118 begintsuglyph("uniFF9F",159);
1119     Fill fullcircle scaled (handakuten_outer*0.75) shifted (-90,780);
1120     unFill reverse fullcircle scaled (handakuten_inner*0.75) shifted (-90,780);
1121 endsuglyph;
1122
1123 endgroup;
1124
1125 % WARNING changing rescale setting
1126 tsu_rescale_full;
```



FF

```

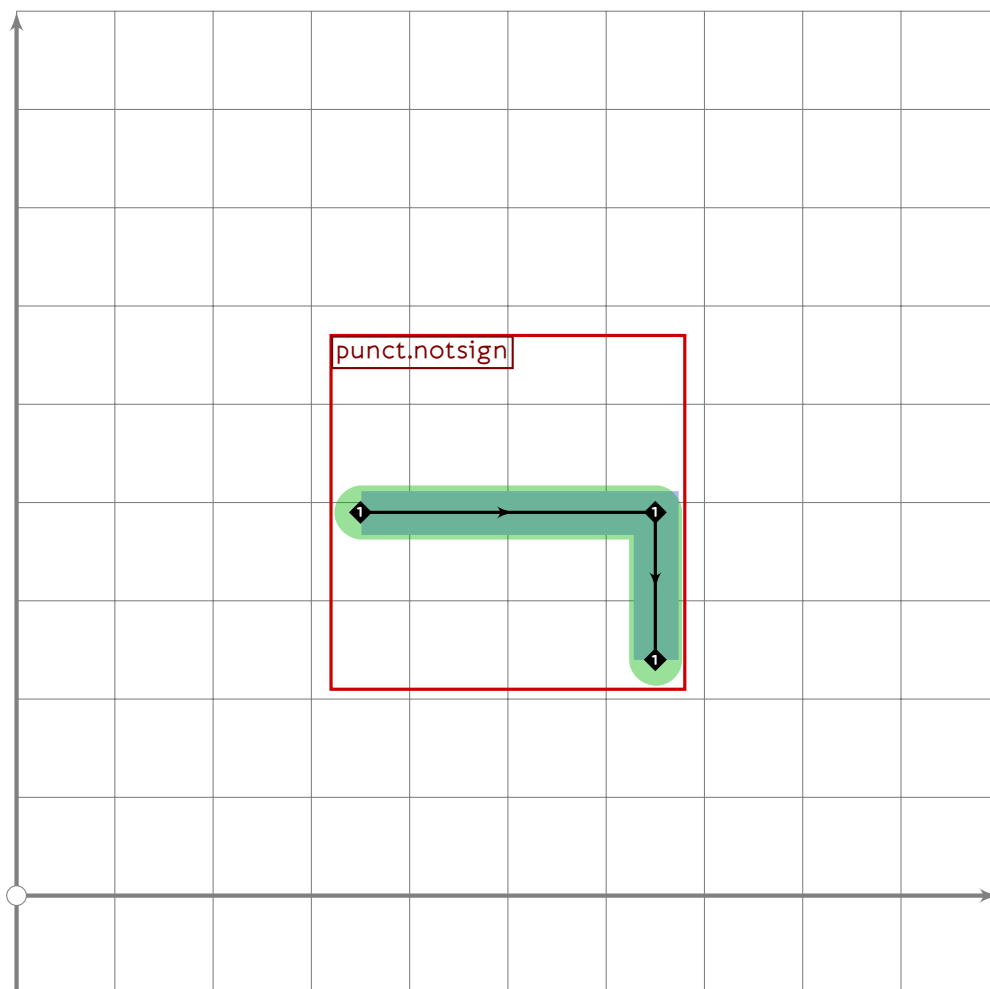
1127
1128 begintsuglyph("uniFFE0",224);
1129   tsu_accent.apply(latin.lowc)(tsu_accent.slash);
1130   tsu_render;
1131 endtsuglyph;
1132
1133 begintsuglyph("uniFFE1",225);
1134   punct.pound;
1135   tsu_render;
1136 endtsuglyph;

```

[see page 400]

U+FFE2
tsuku.uniFFE2

FF



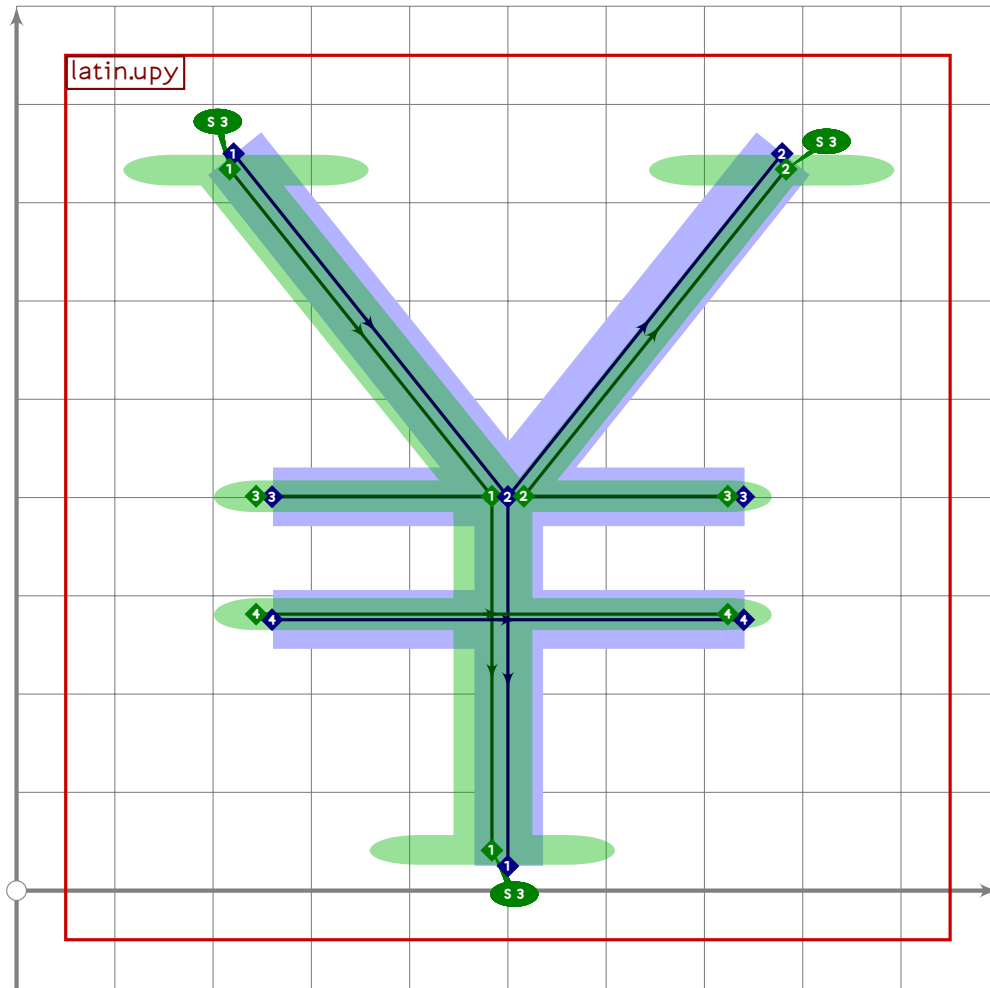
```

1137
1138 begintsuglyph("uniFFE2",226);
1139   punct.notsign
1140     (identity scaled (1.5*tsu_punct_size) shifted centre_pt);
1141   tsu_render;
1142 endtsuglyph;
1143
1144 begintsuglyph("uniFFE3",227);
1145   tsu_accent.macron;
1146   tsu_render;
1147 endtsuglyph;
1148
1149 begintsuglyph("uniFFE4",228);
1150   punct.bvline;
1151   tsu_render;
1152 endtsuglyph;

```

[see page 110]

[see page 375]



FF

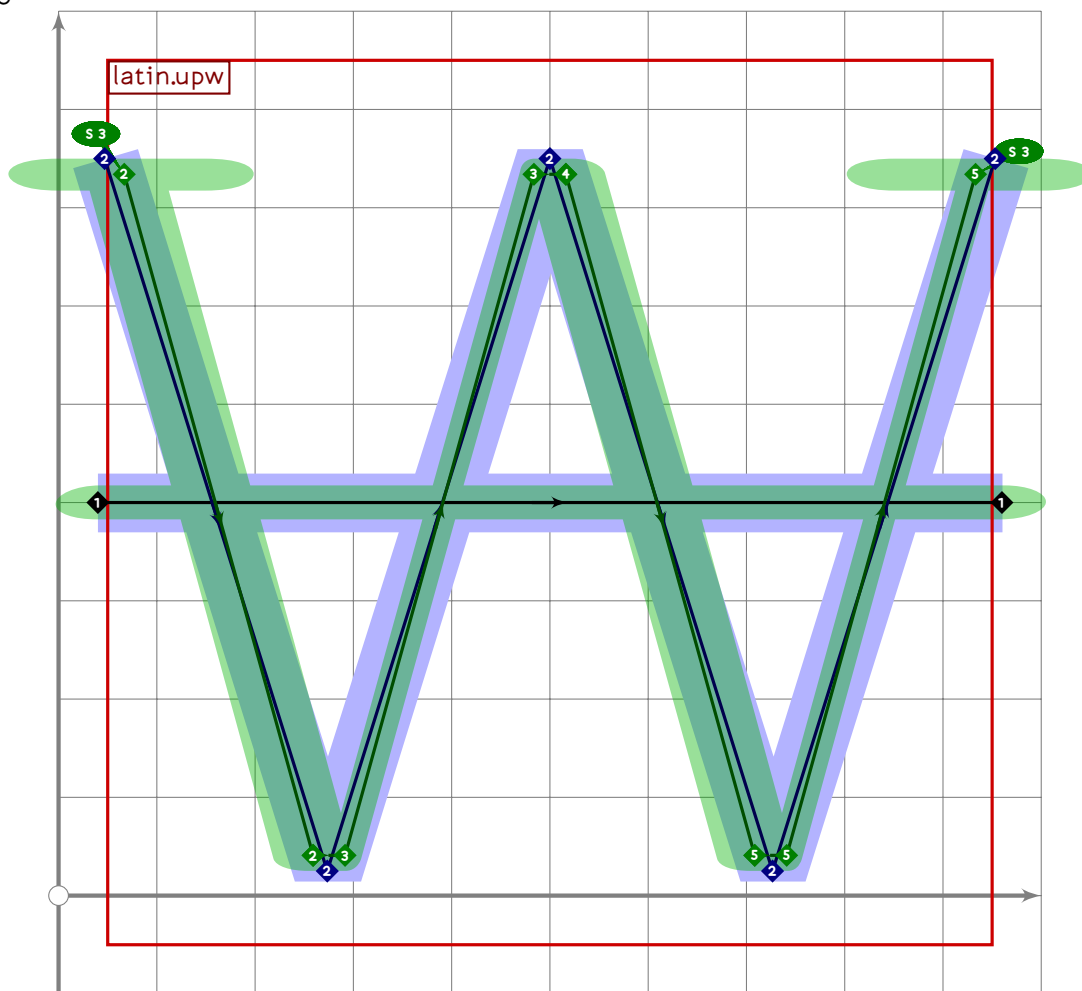
```

1153
1154 begintsuglyph("uniFFE5",229);
1155   latin.upy;
1156   push_stroke(((240,0)-(240,0)) shifted point 1 of get_stroke(-1),
1157     (2,2)-(2,2));
1158   set_bosize(0,80);
1159   push_stroke(((240,0)-(240,0)) shifted point 1.333 of get_stroke(-2),
1160     (2,2)-(2,2));
1161   set_bosize(0,80);
1162   tsu_render;
1163 endsuglyph;

```

U+FFE6
tsuku.uniFFE6

FF



```

1164
1165 begintsuglyph("uniFFE6";230);
1166   push_stroke((40,400)-(960,400),(2,2)-(2,2));
1167   set_bosize(0,80);
1168   latin.upw;
1169   tsu_render;
1170 endtsuglyph;
1171
1172
1173
1174 endfont;
1175
1176

```

tsuku-1f1.mp

```
1 %
2 % Unicode page 1F1 (Enclosed Supplement) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31
32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input enclosed.mp;
39 input latin.mp;
40
41 do_late_includes;
42
43
44
```

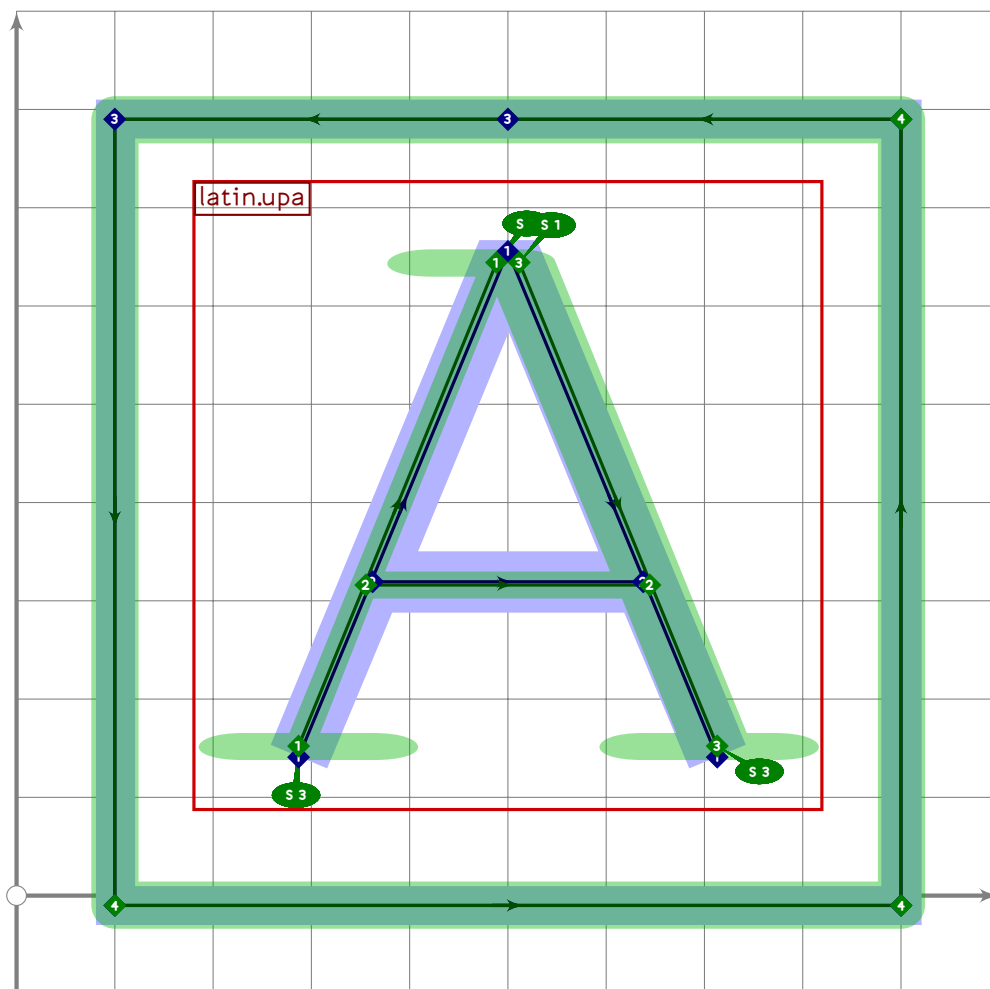
1F1

Squared Latin

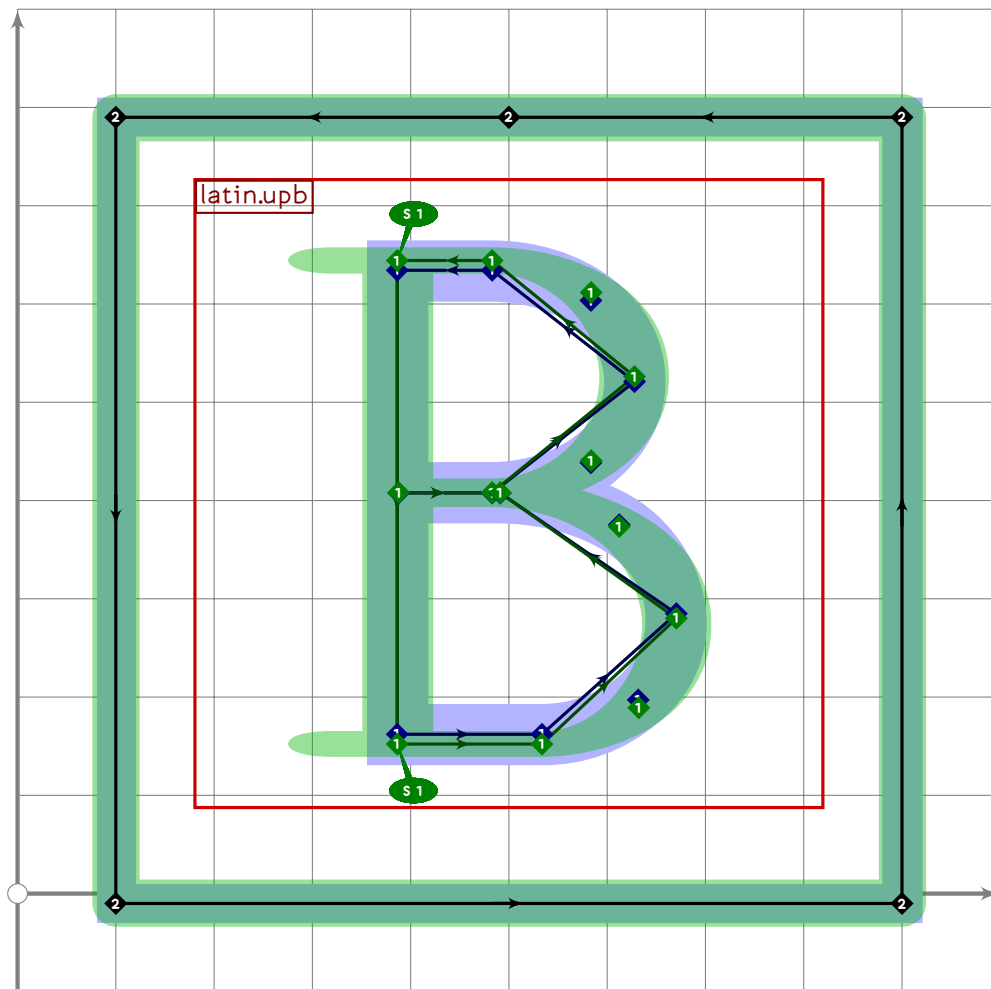
```
45 % SQUARED LATIN
46
```


U+1F130
tsuku.𐌚1F130

1F1



```
47 % A
48 begintsuglyph("𐌚1F130";48);
49 square.single(latin.upa);
50 tsu_render;
51 endtsuglyph;
52
```

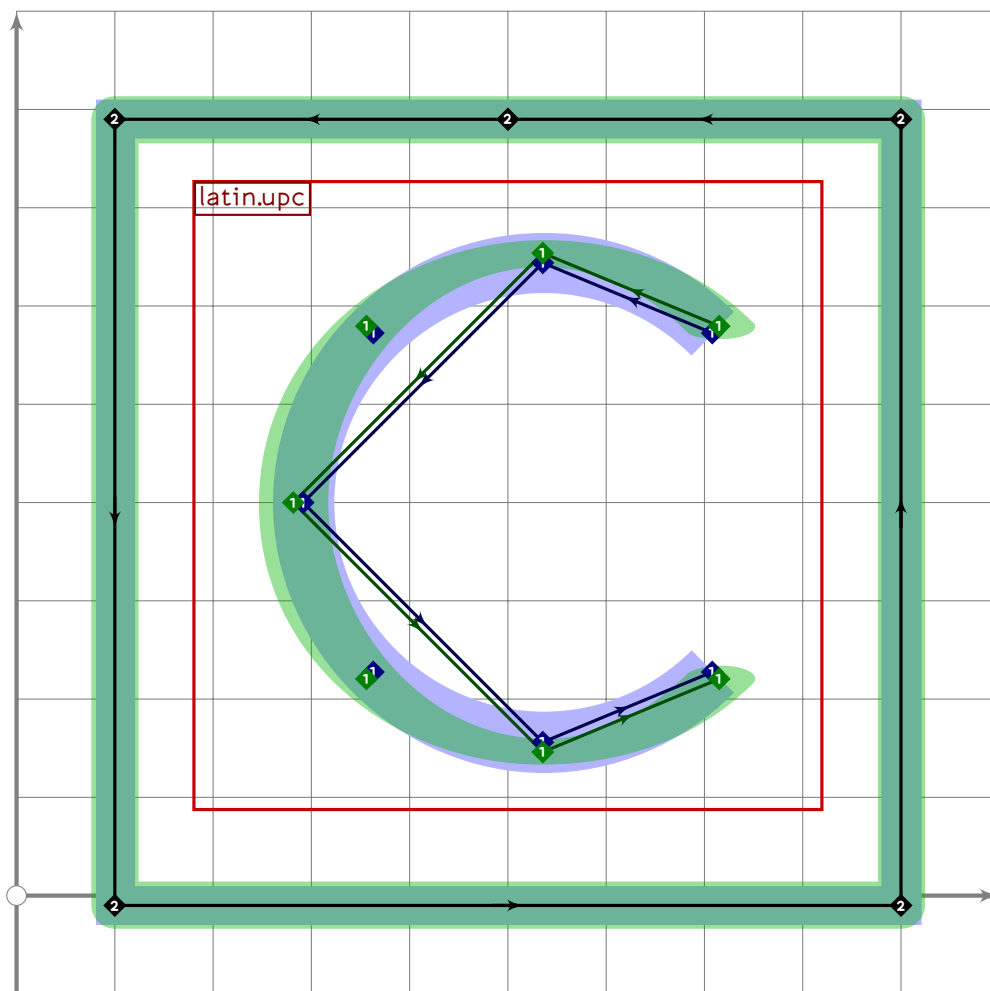


1F1

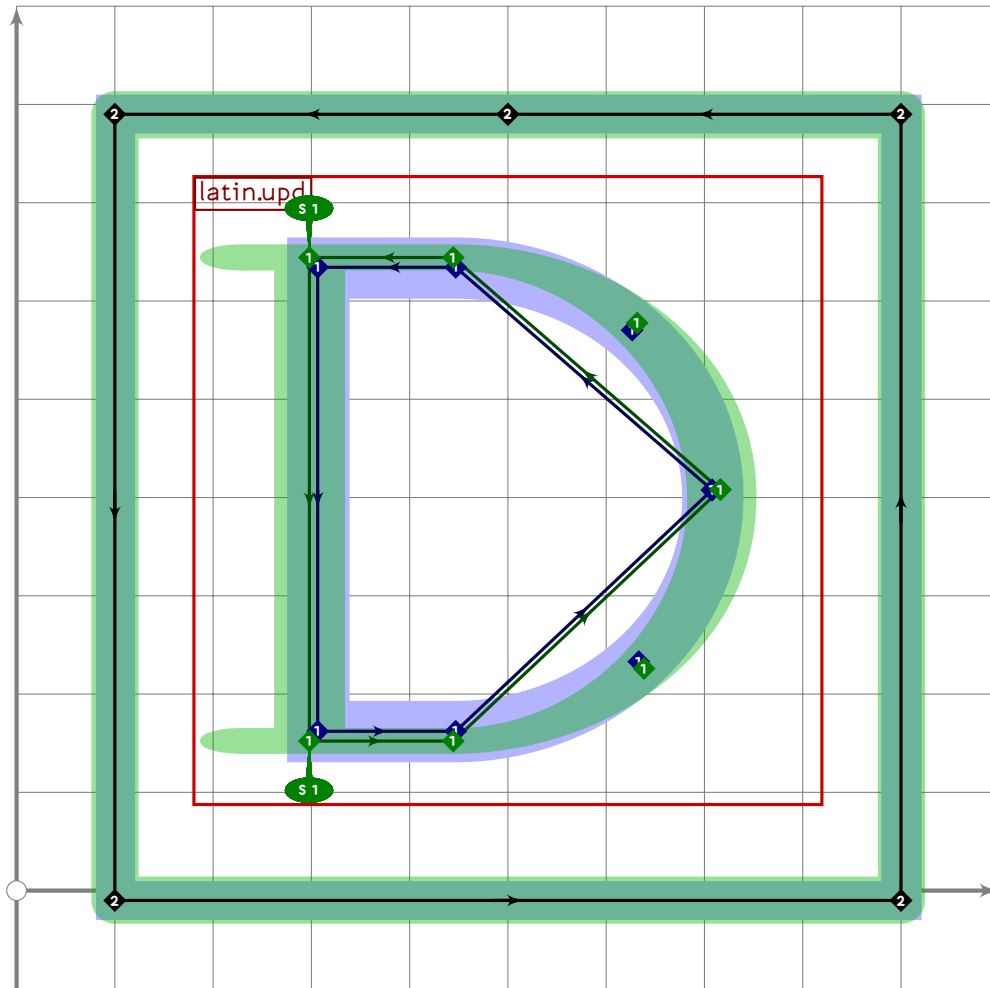
```
53 % B
54 begint Suglyph("u1F131";49);
55   square.single(latin.upb);
56   tsu_render;
57 endtsuglyph;
58
```

U+1F132
tsuku.𐄢1F132

1F1



```
59 % C
60 begintsuglyph("𐄢1F132";50);
61   square.single(latin.upc);
62   tsu_render;
63 endtsuglyph;
64
```



1F1

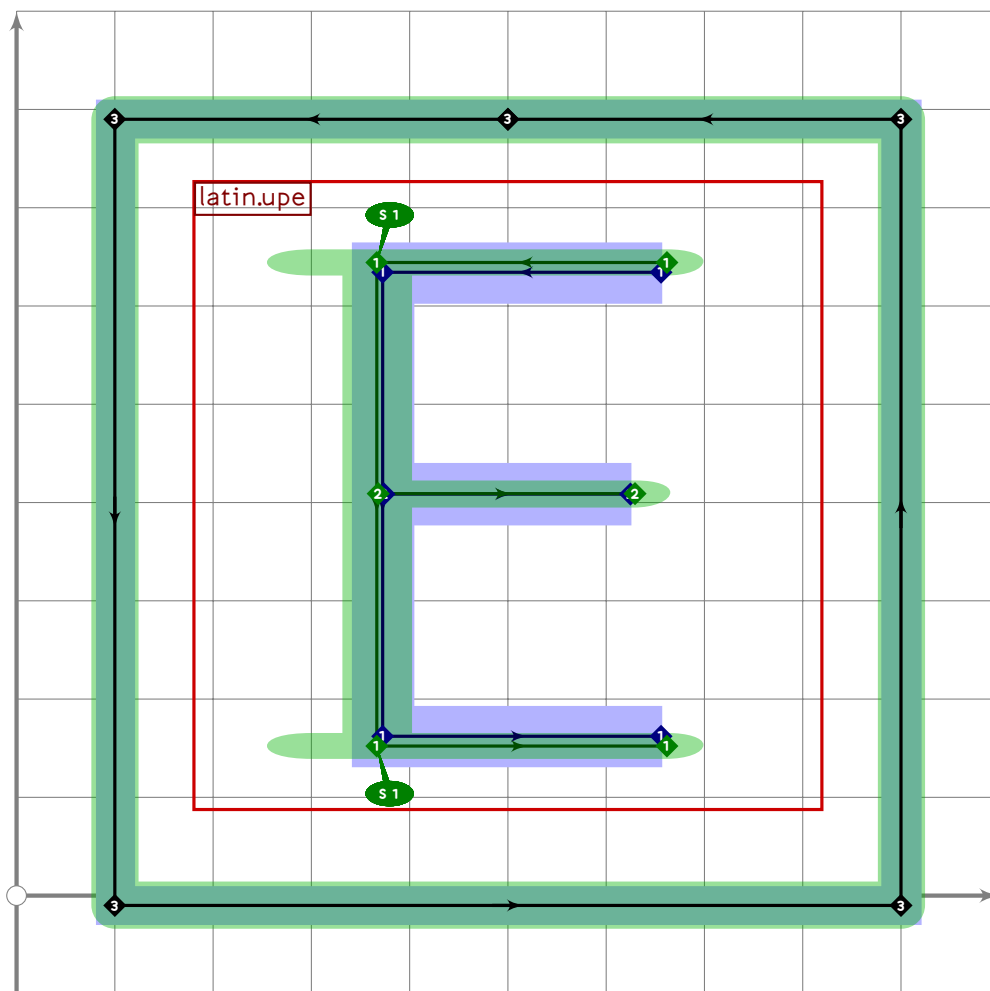
```

65 % D
66 begint Suglyph("u1F133";51);
67   square.single(latin.upd);
68   tsu_render;
69 endtsuglyph;
70

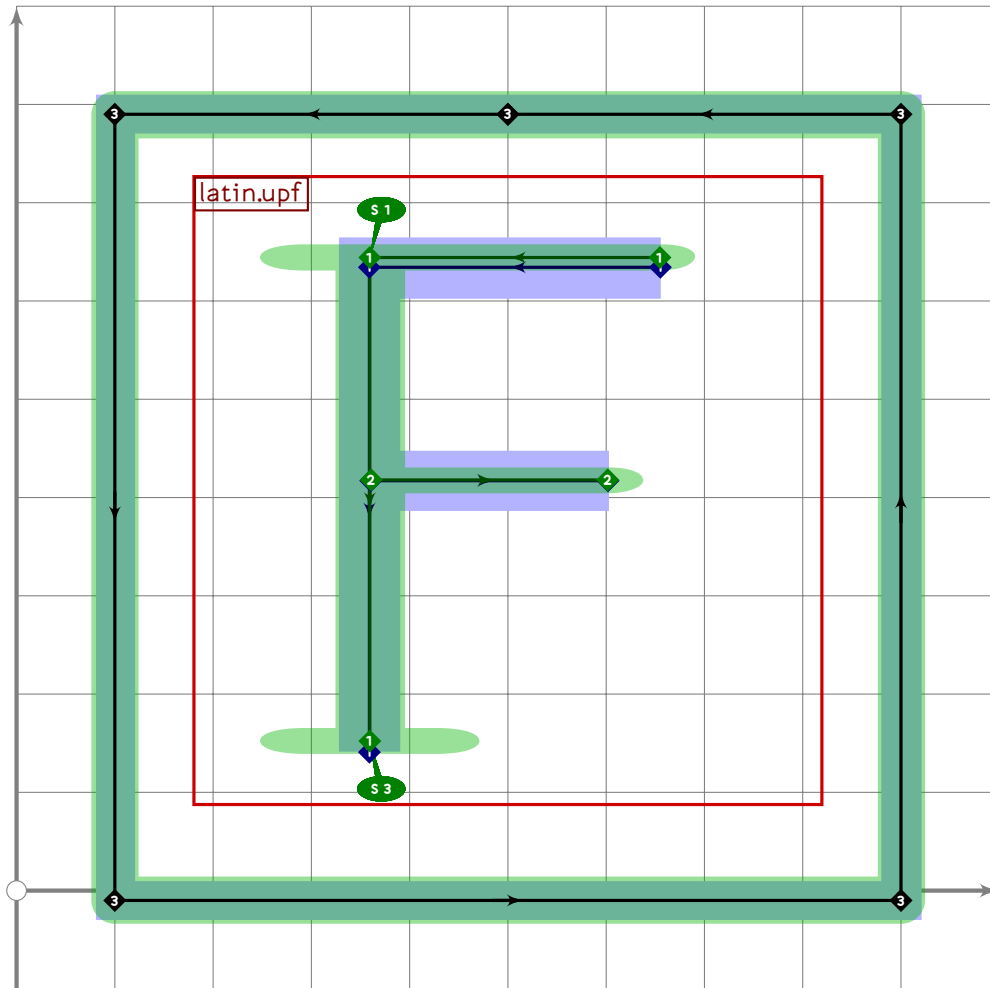
```

U+1F134
tsuku.u1F134

1F1



```
71 % E
72 begintsuglyph("u1F134";52);
73   square.single(latin.upe);
74   tsu_render;
75 endtsuglyph;
76
```



1F1

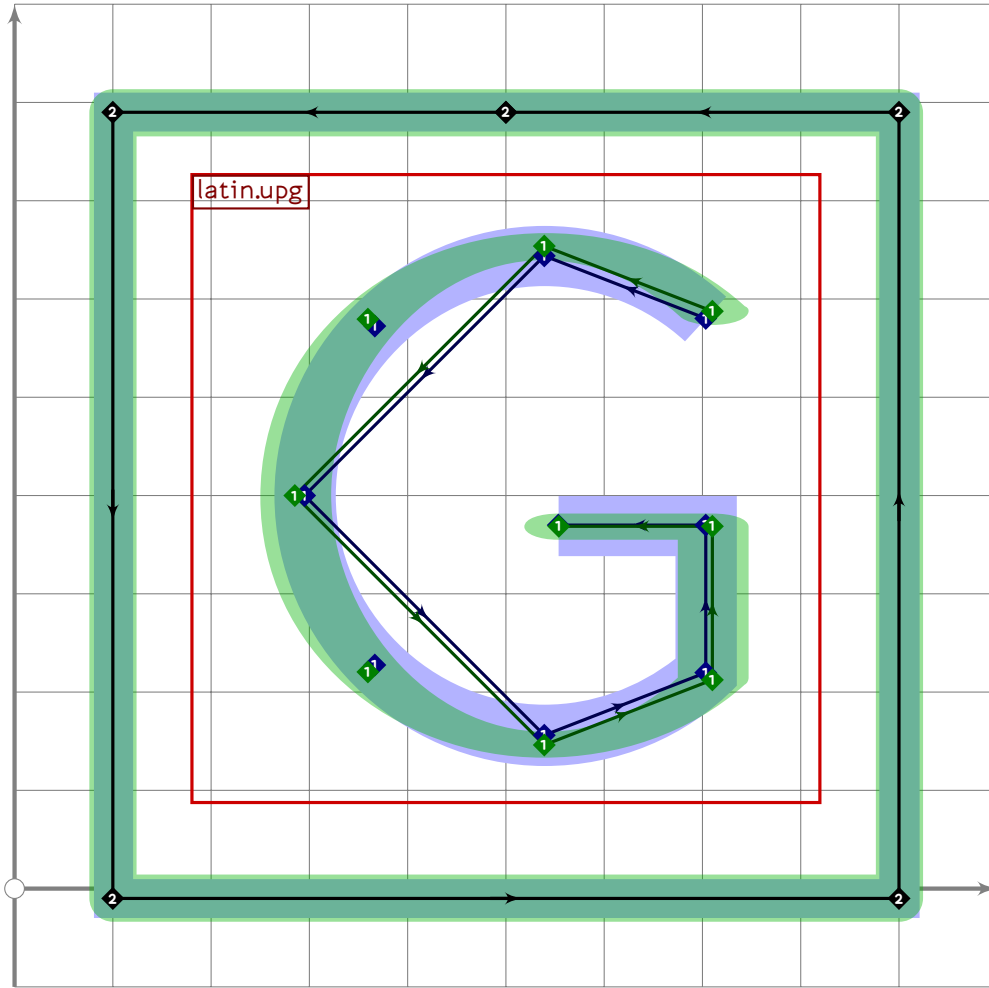
```

77 % F
78 begintsuglyph("u1F135";53);
79   square.single(latin.upf);
80   tsu_render;
81 endsuglyph;
82

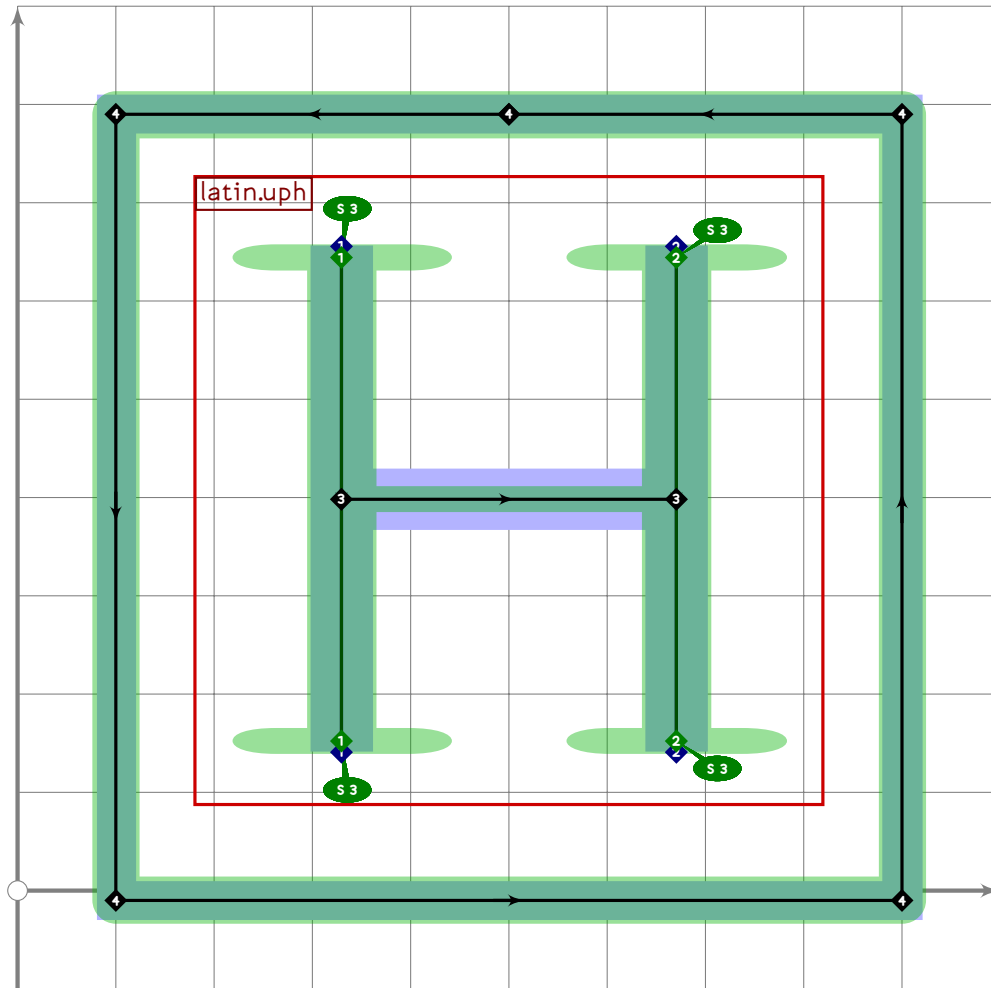
```

U+1F136
tsuku.u1F136

1F1



```
83 % G
84 begint Suglyph("u1F136",54);
85   square.single(latin.upg);
86   tsu__render;
87 endts Suglyph;
88
```



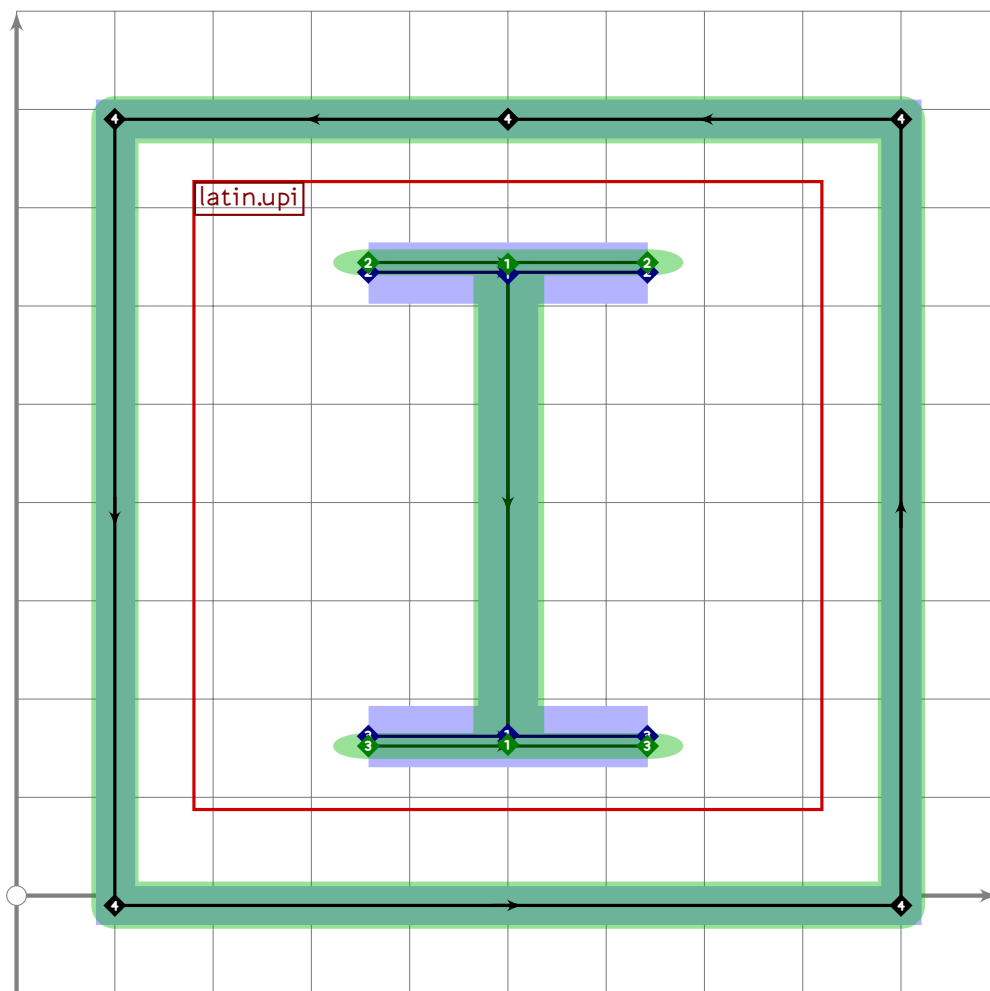
1F1

```

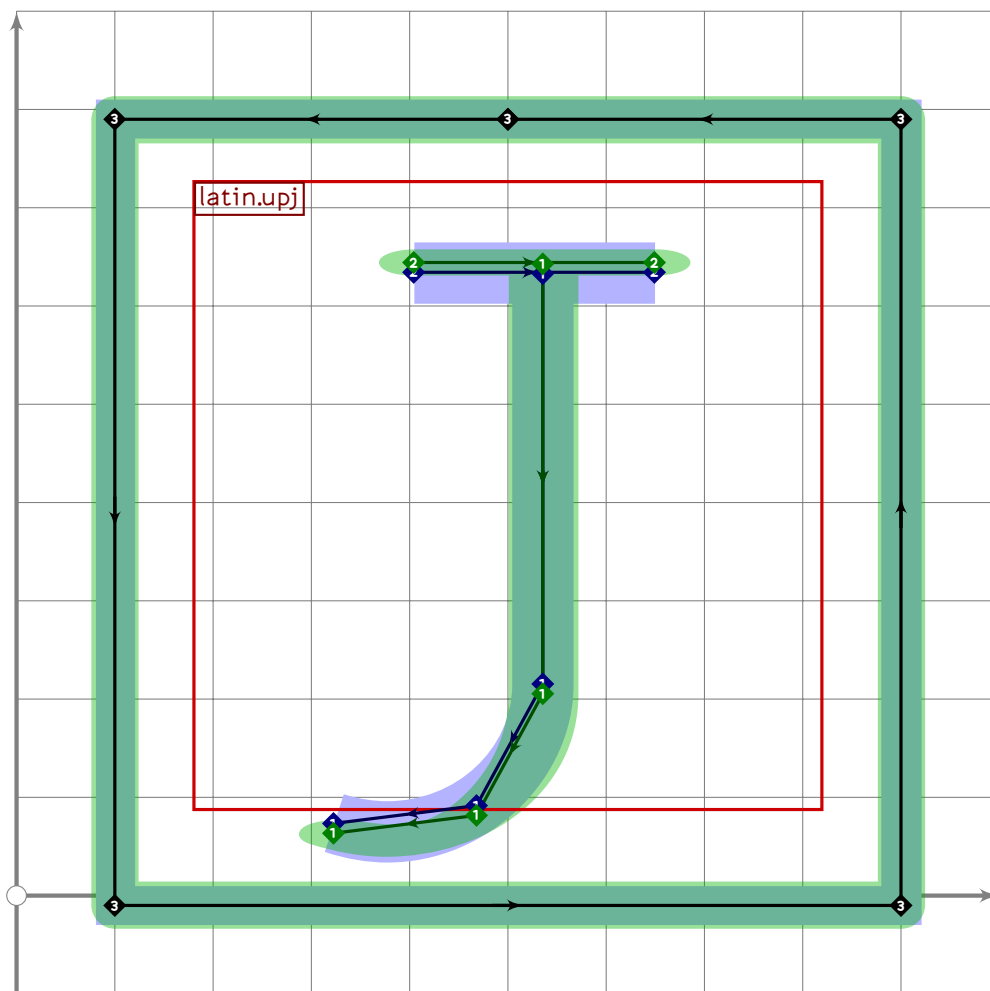
89 % H
90 begint Suglyph("u1F137";55);
91   square.single(latin.uph);
92   tsu_render;
93 endtsuglyph;
94

```


1F1



3934



1F1

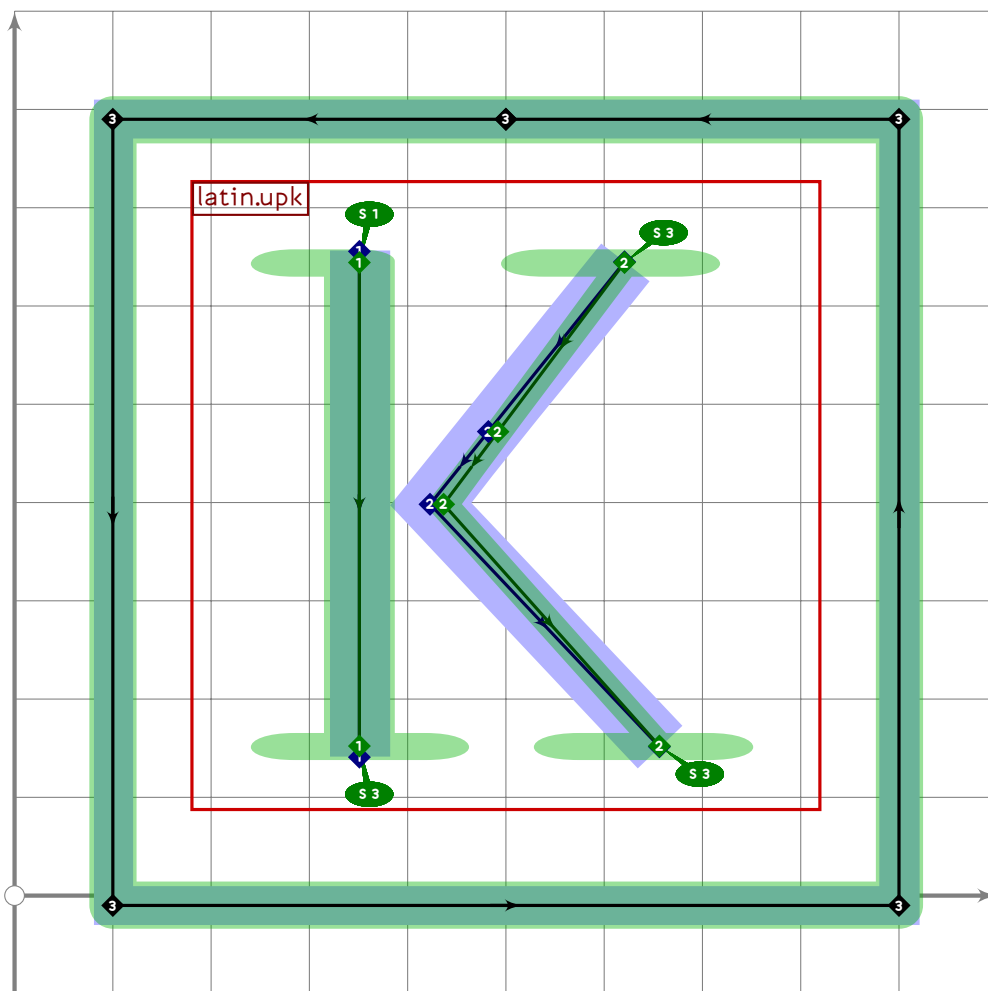
```

101 % J
102 begintsuglyph("u1F139";57);
103   square.single(latin.upj);
104   tsu_render;
105 endtsuglyph;
106

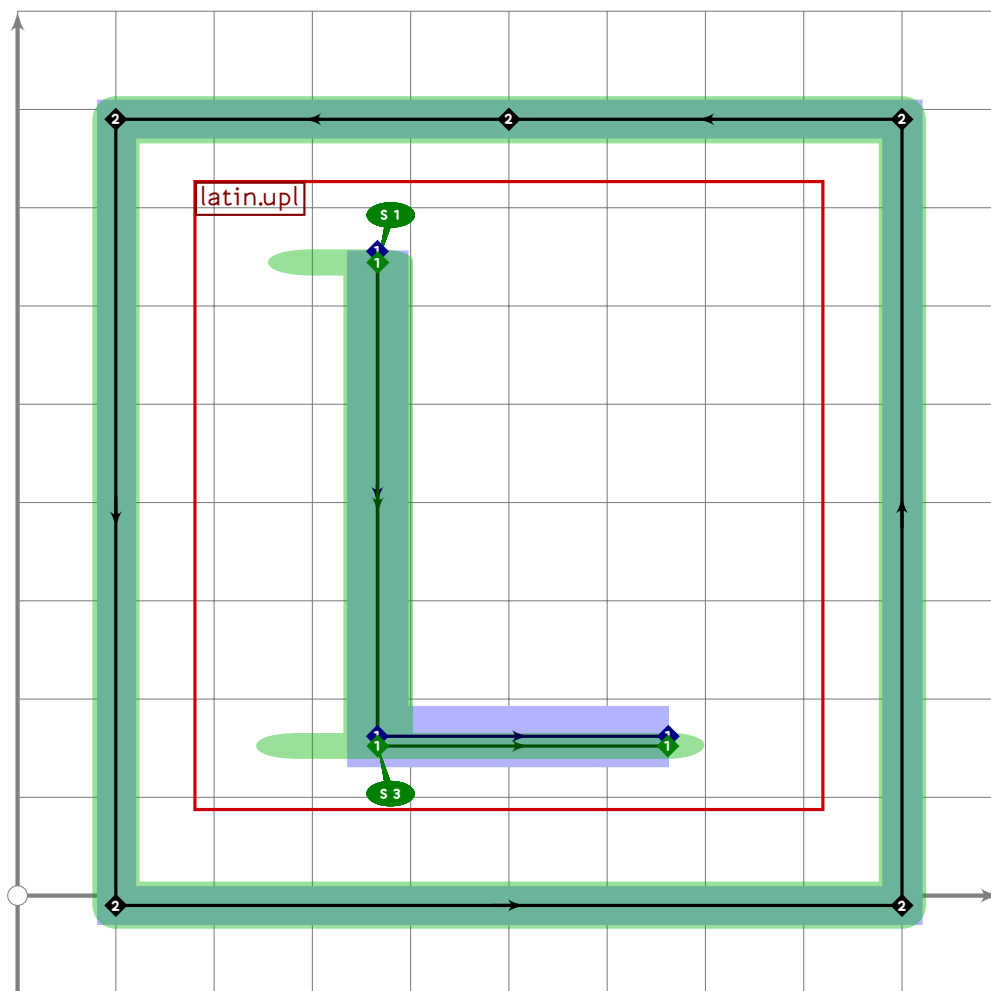
```

U+1F13A
tsuku.ũ1F13A

1F1



```
107 % K
108 begint Suglyph("ũ1F13A";58);
109   square.single(latin.upk);
110   tsu_render;
111 endtsuglyph;
112
```



1F1

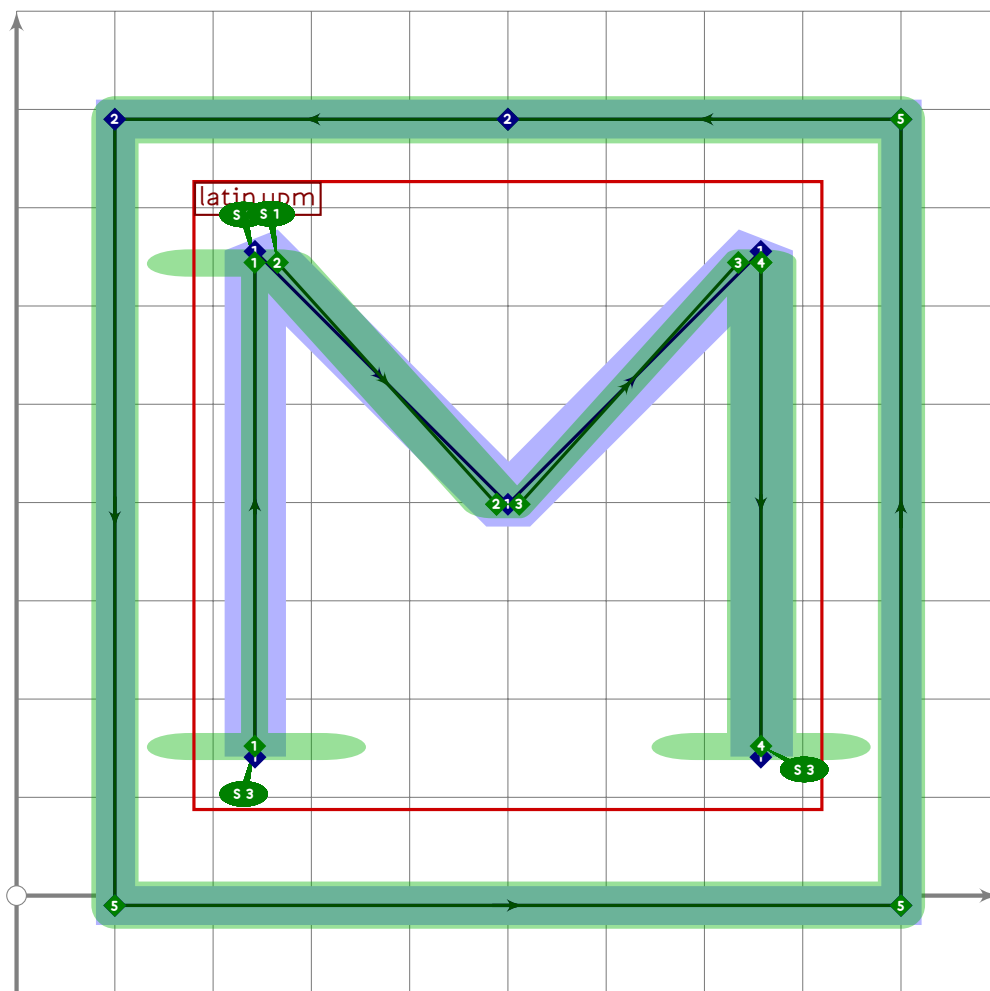
```

113 % L
114 begintsuglyph("u1F13B";59);
115   square.single(latin.upl);
116   tsu_render;
117 endtsuglyph;
118

```

U+1F13C
tsuku.ũ1F13C

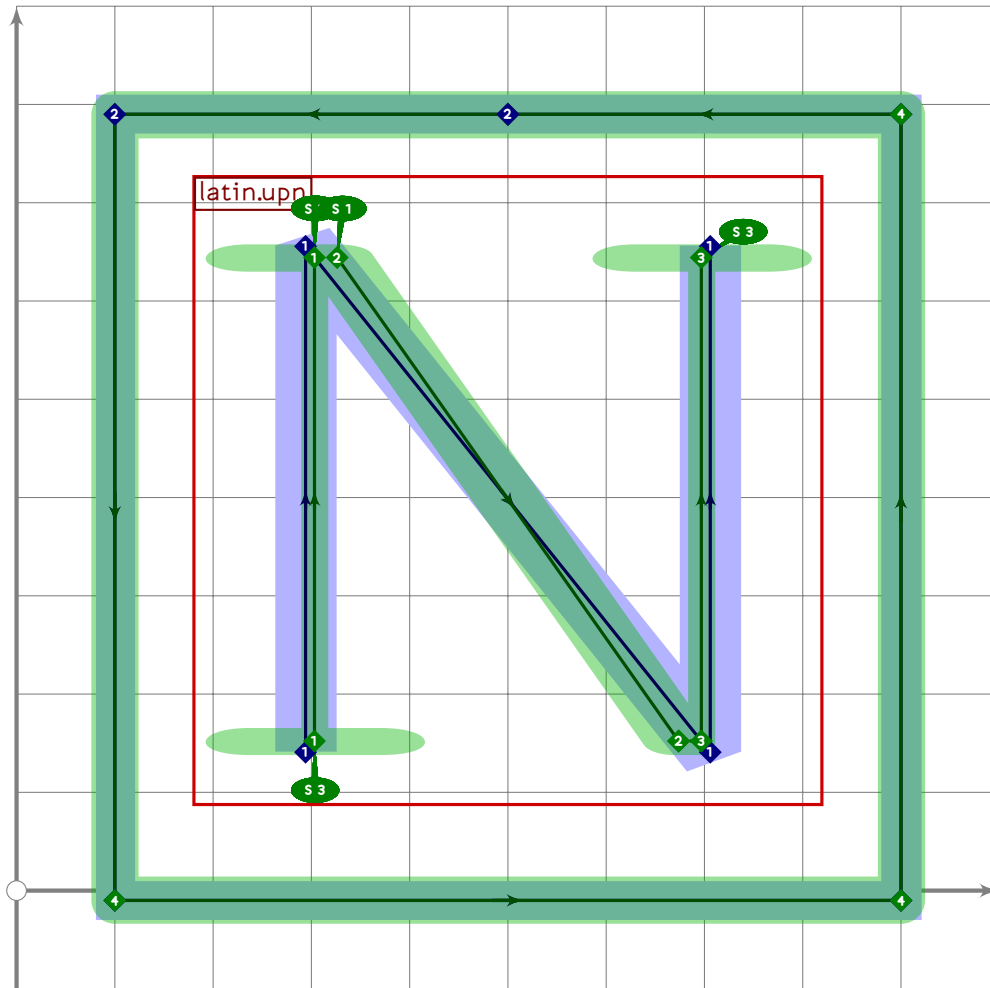
1F1



```

119 % M
120 begintsuglyph("ũ1F13C",60);
121   square.single(latin.upm);
122   tsu_render;
123 endtsuglyph;
124

```



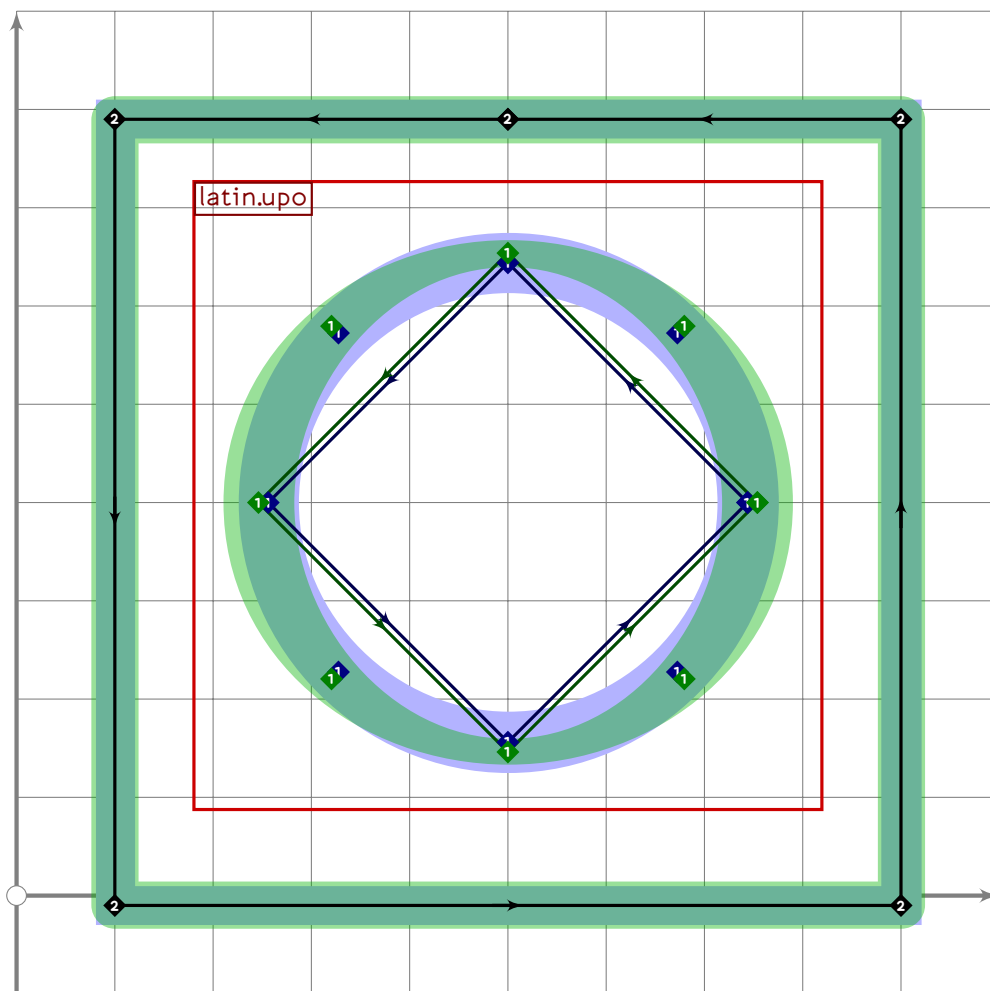
1F1

```

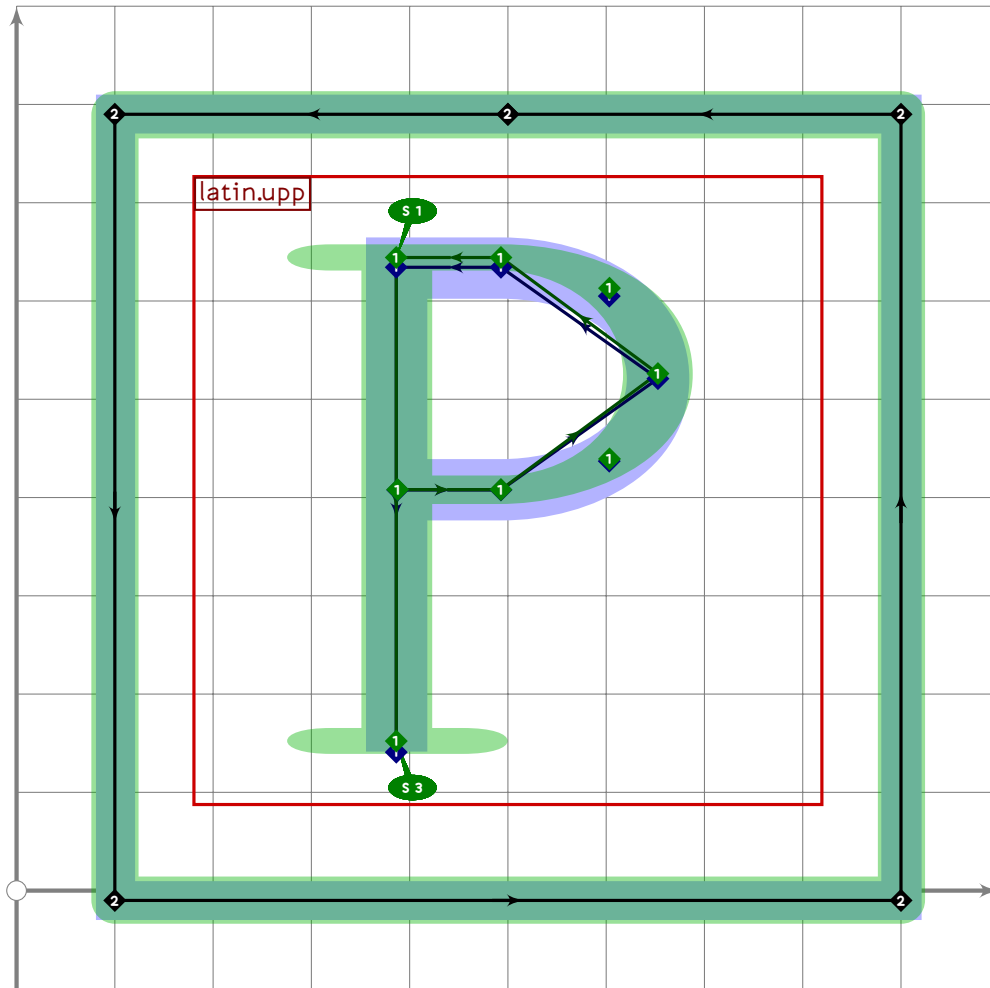
125 % N
126 begintsuglyph("u1F13D",61);
127   square.single(latin.upn);
128   tsu_render;
129 endtsuglyph;
130

```

1F1



3940



1F1

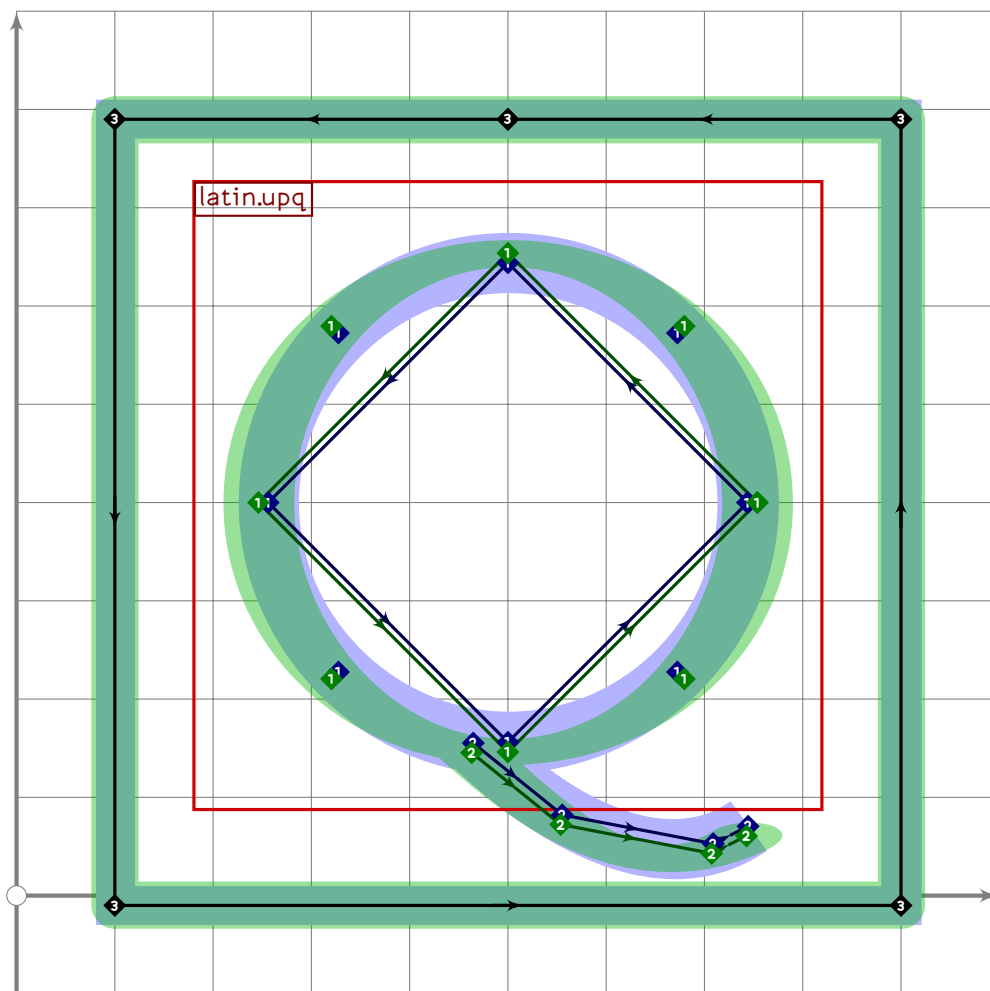
```

137 % P
138 begintsuglyph("u1F13F",63);
139   square.single(latin.upp);
140   tsu__render;
141 endsuglyph;
142

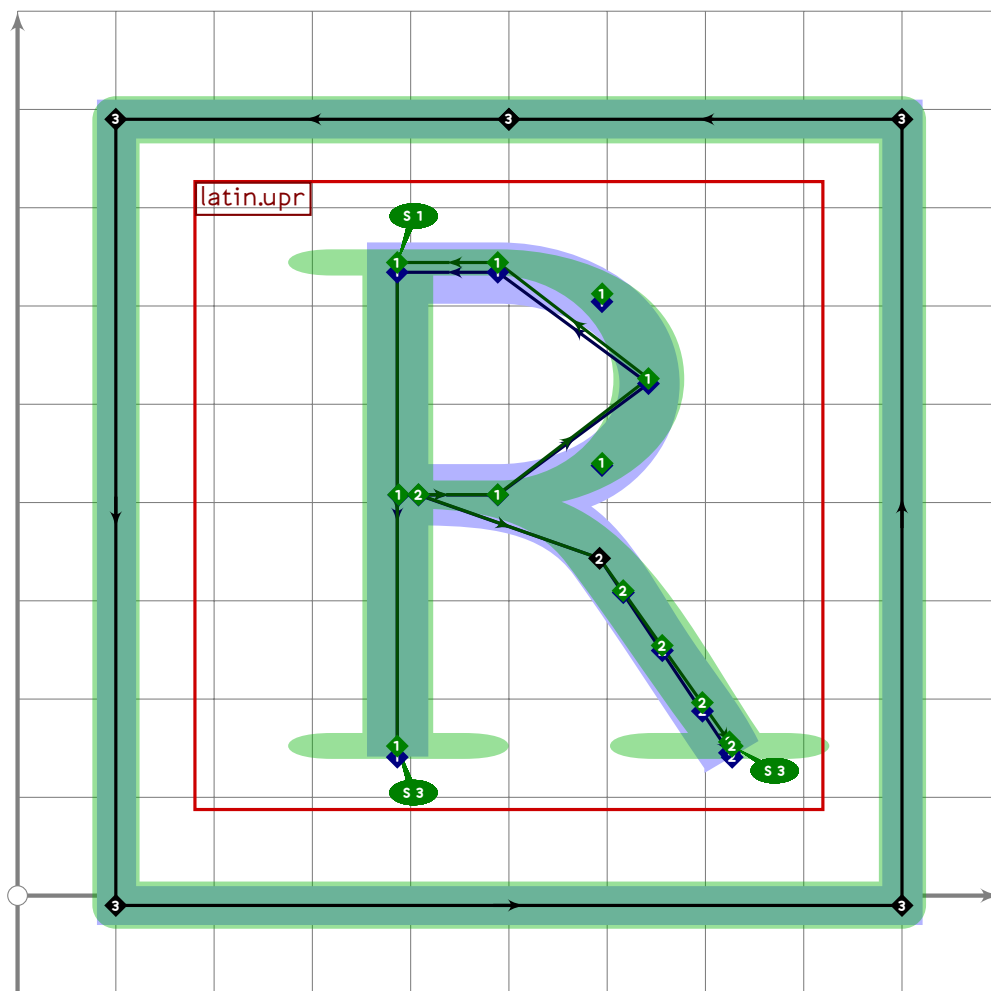
```


U+1F140
tsuku.𐤔𐤕𐤕

1F1



```
143 % Q
144 begintsuglyph("𐤔",64);
145   square.single(latin.upq);
146   tsu_render;
147 endtsuglyph;
148
```



1F1

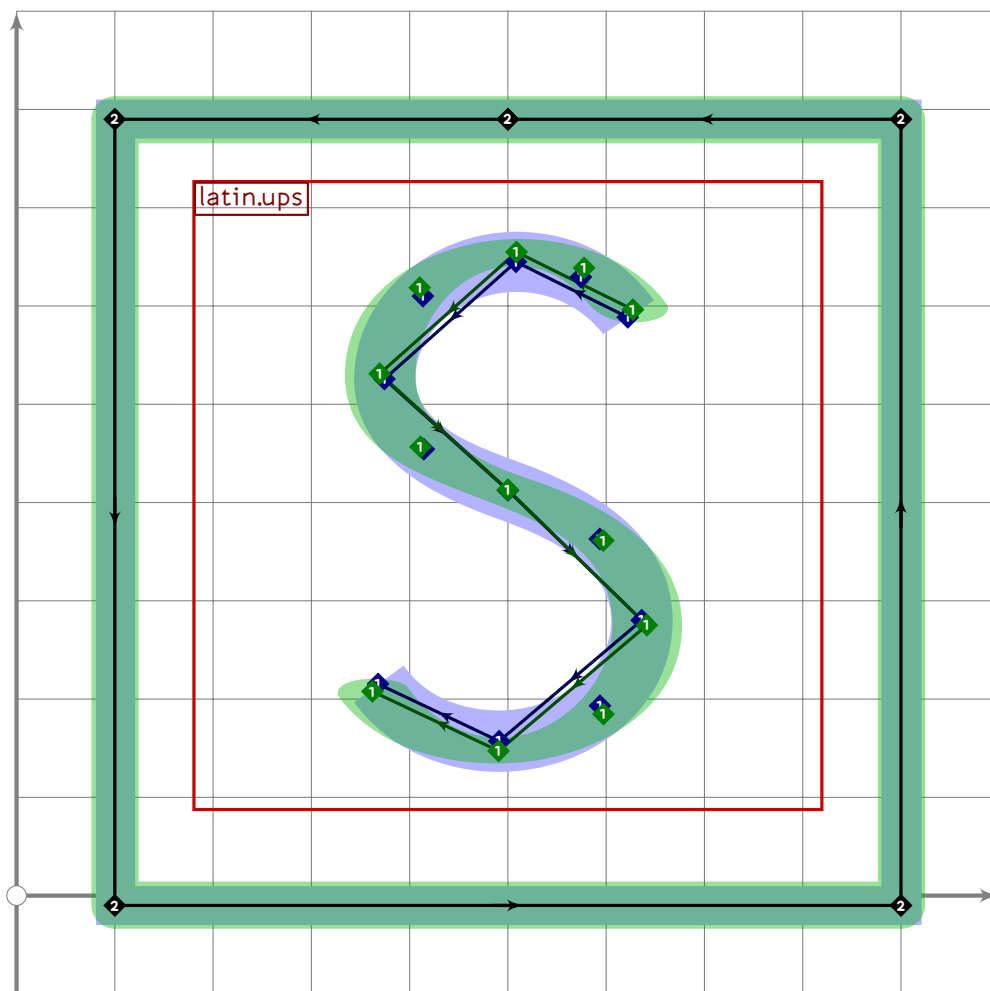
```

149 % R
150 begint Suglyph("u1F141",65);
151   square.single(latin.upr);
152   tsu_render;
153 endtsuglyph;
154

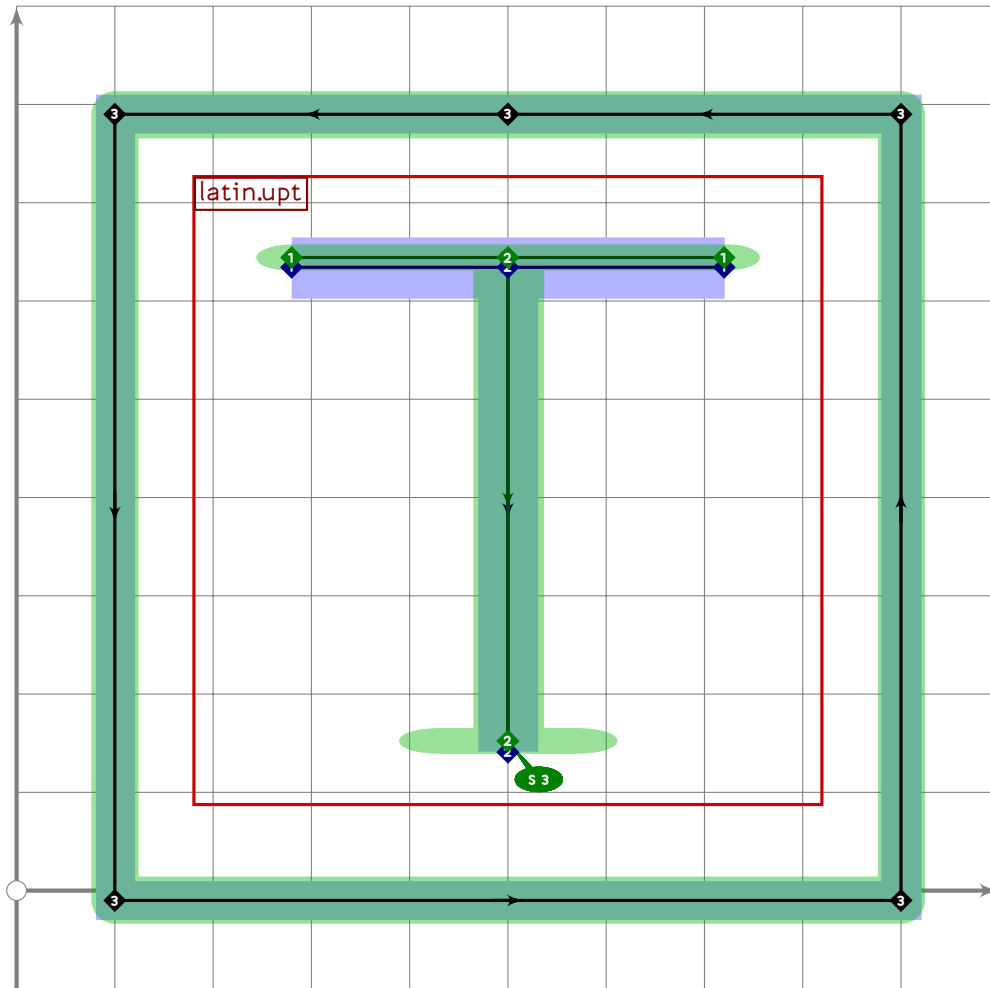
```

U+1F142
tsuku.𐤥142

1F1



```
155 % S
156 begint Suglyph("𐤥142",66);
157   square.single(latin.ups);
158   tsu_render;
159 endtsuglyph;
160
```



1F1

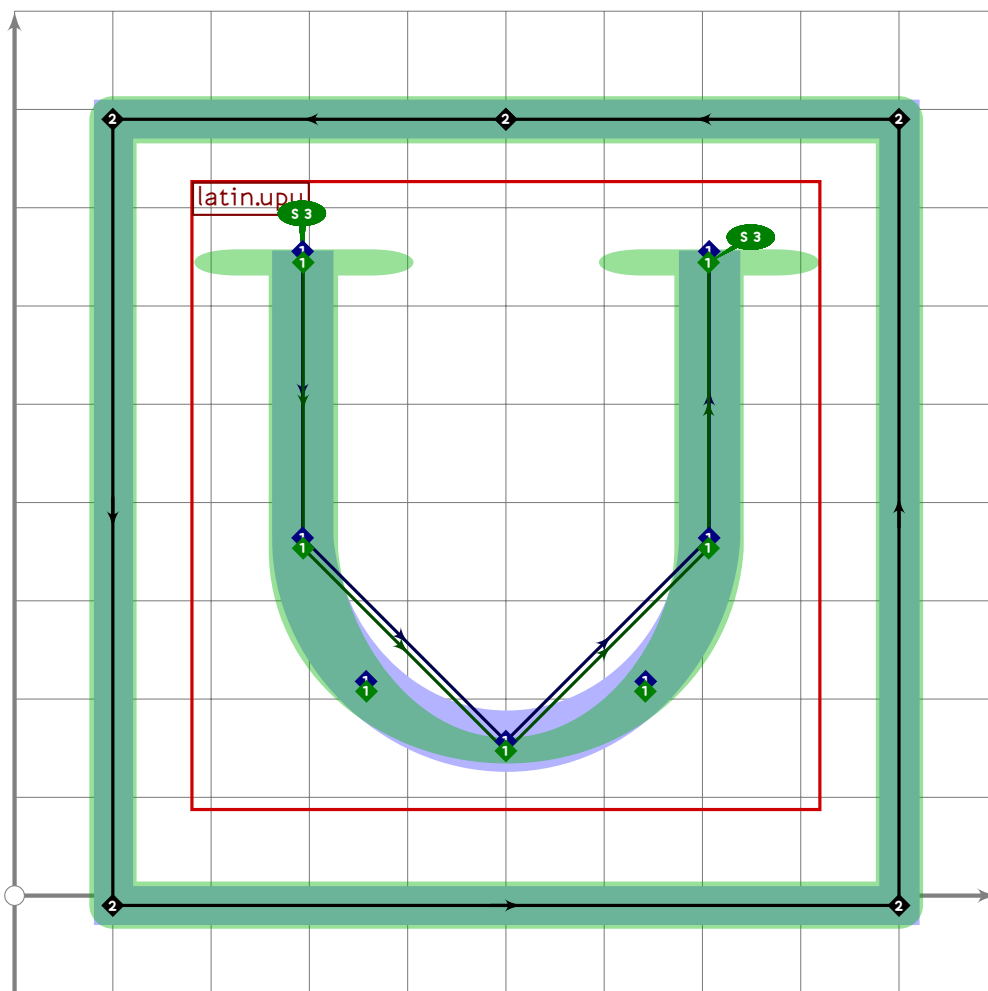
```

161 % T
162 begintsuglyph("u1F143";67);
163   square.single(latin.upt);
164   tsu_render;
165 endtsuglyph;
166

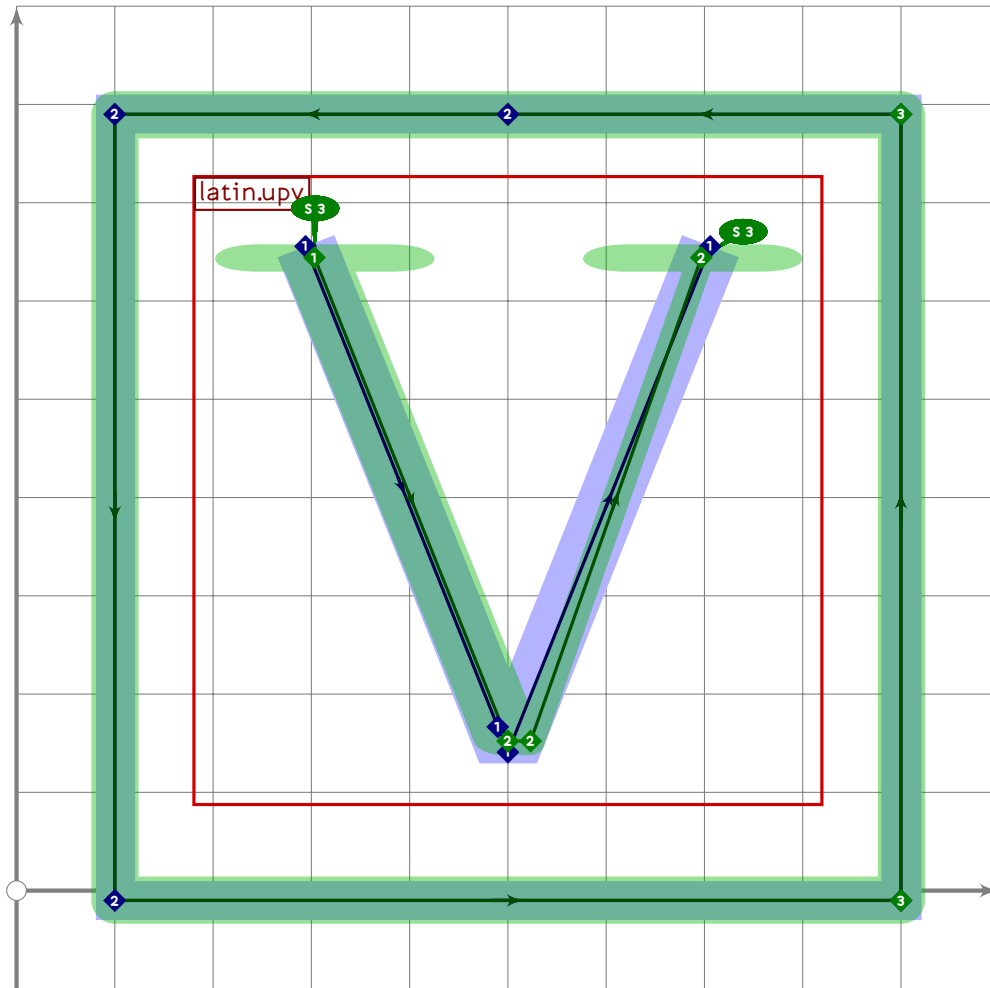
```

U+1F144
tsuku.ũ1F144

1F1



```
167 % U
168 begintsuglyph("ũ1F144";68);
169 square.single(latin.upu);
170 tsu_render;
171 endtsuglyph;
172
```



1F1

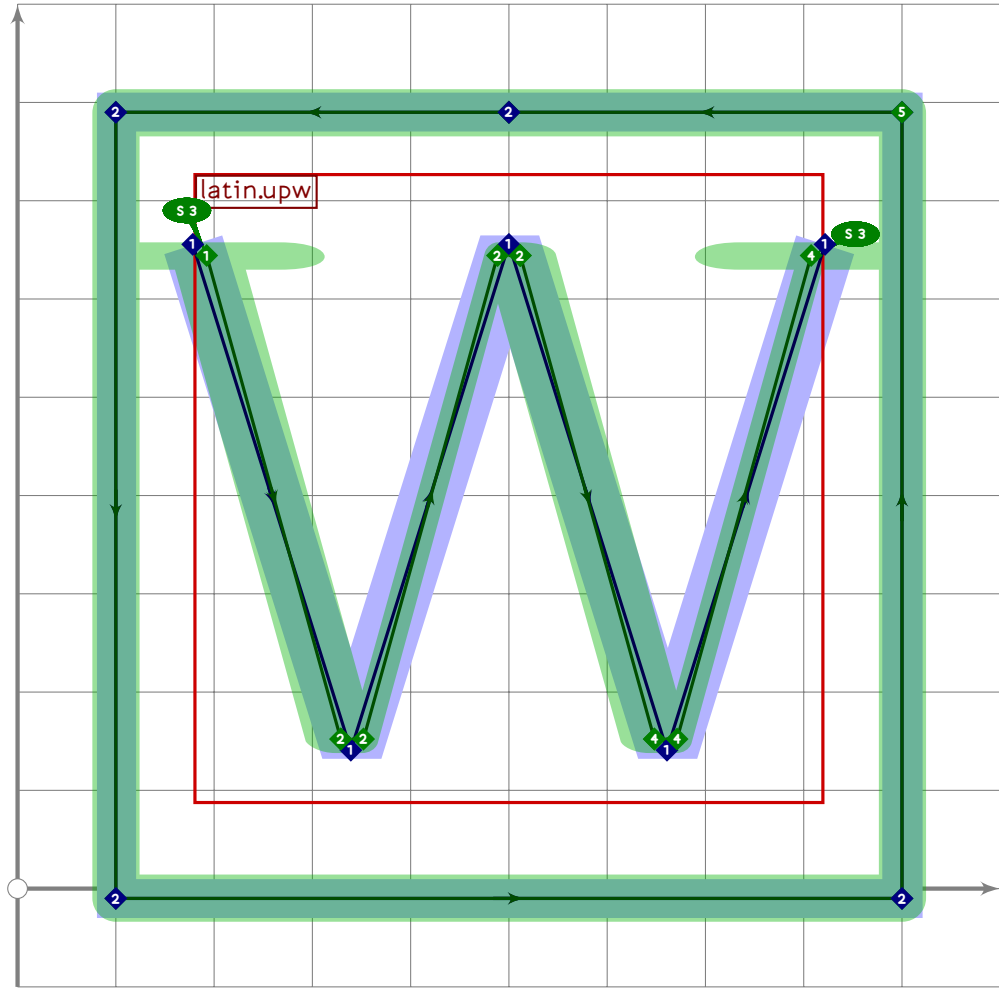
```

173 % V
174 begintsuglyph("u1F145";69);
175   square.single(latin.upv);
176   tsu_render;
177 endtsuglyph;
178

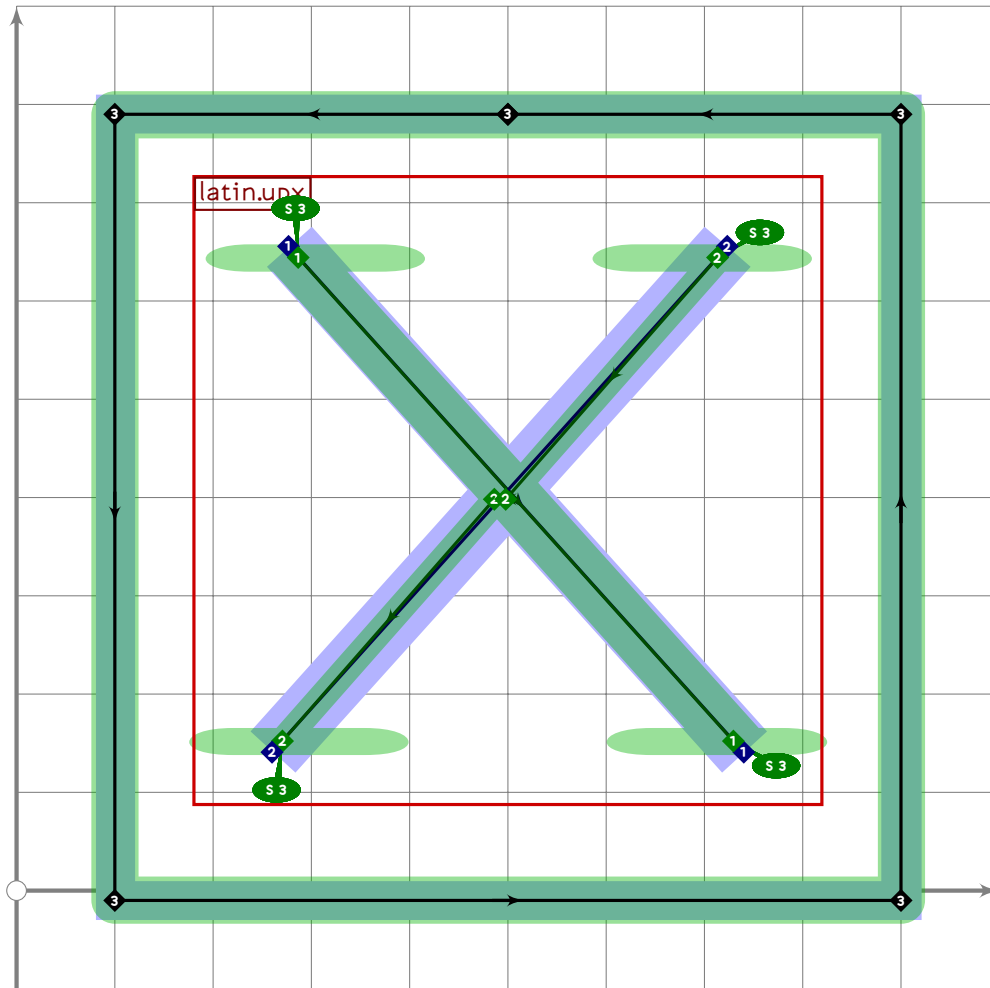
```

U+1F146
tsuku.𐌚1F146

1F1



```
179 % W
180 begint Suglyph("𐌚1F146";70);
181   square.single(latin.upw);
182   tsu_render;
183 endtsuglyph;
184
```



1F1

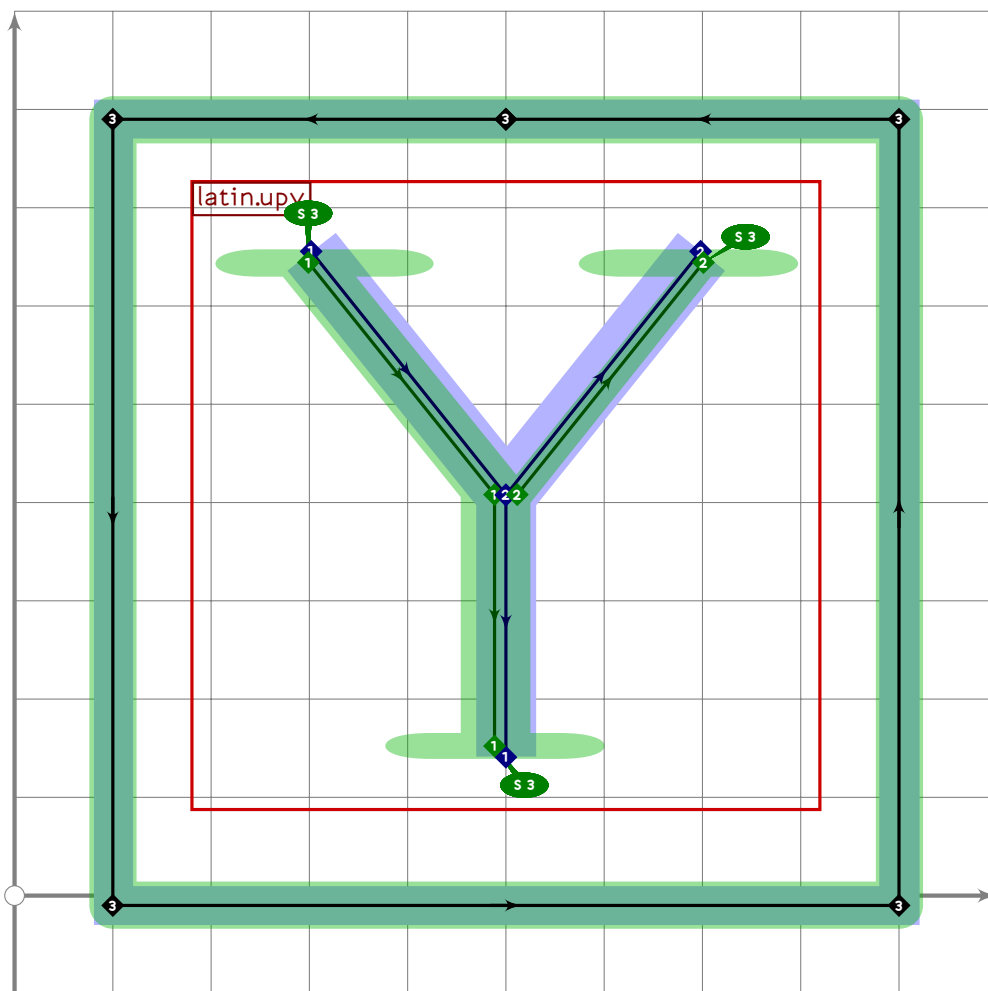
```

185 % X
186 begintsuglyph("u1F147";71);
187   square.single(latin.upx);
188   tsu_render;
189 endtsuglyph;
190

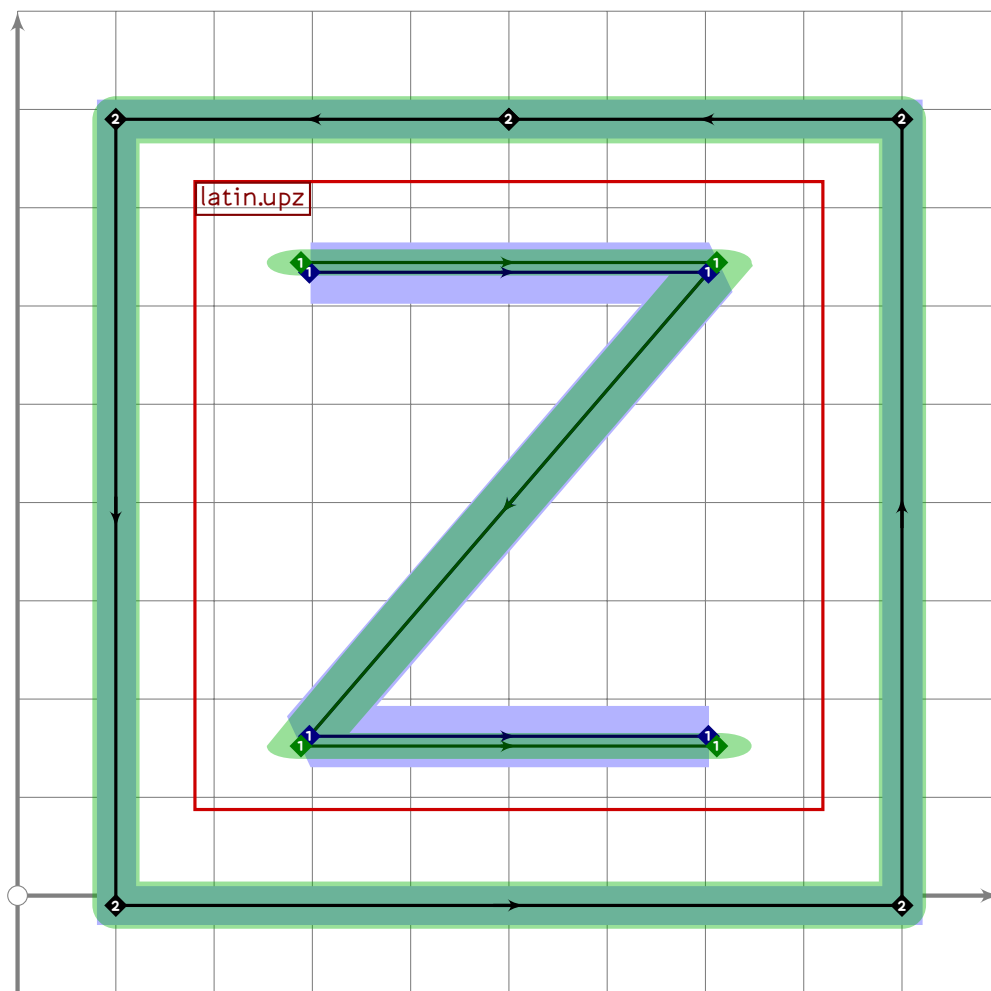
```


U+1F148
tsuku.𐌚1F148

1F1



```
191 % Y
192 begint Suglyph("𐌚1F148";72);
193   square.single(latin.upy);
194   tsu_render;
195 endtsuglyph;
196
```



1F1

```

197 % Z
198 begint Suglyph("u1F149";73);
199   square.single( latin.upz );
200   tsu_render;
201 endtsuglyph;
202
203
204
```

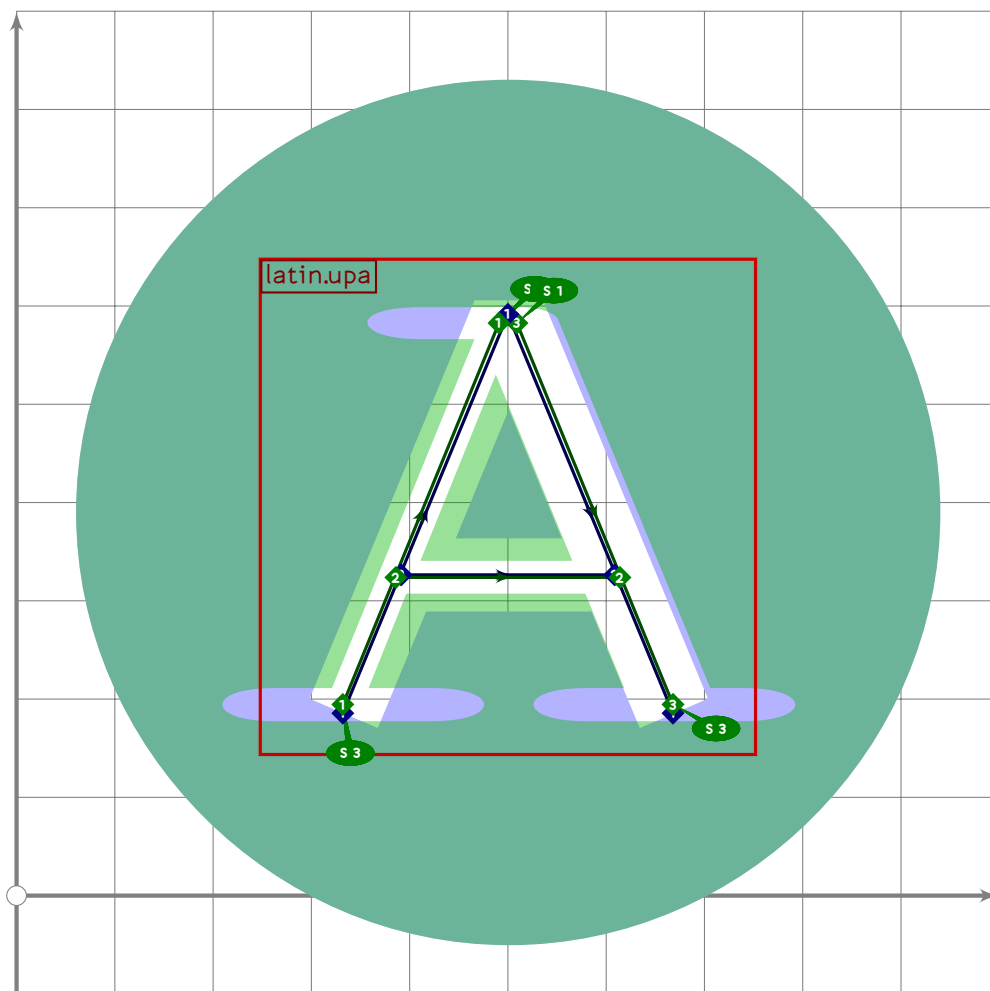
Inverse Circled Latin

```

205 % INVERSE CIRCLED LATIN
206
```

U+1F150
tsuku.u1F150

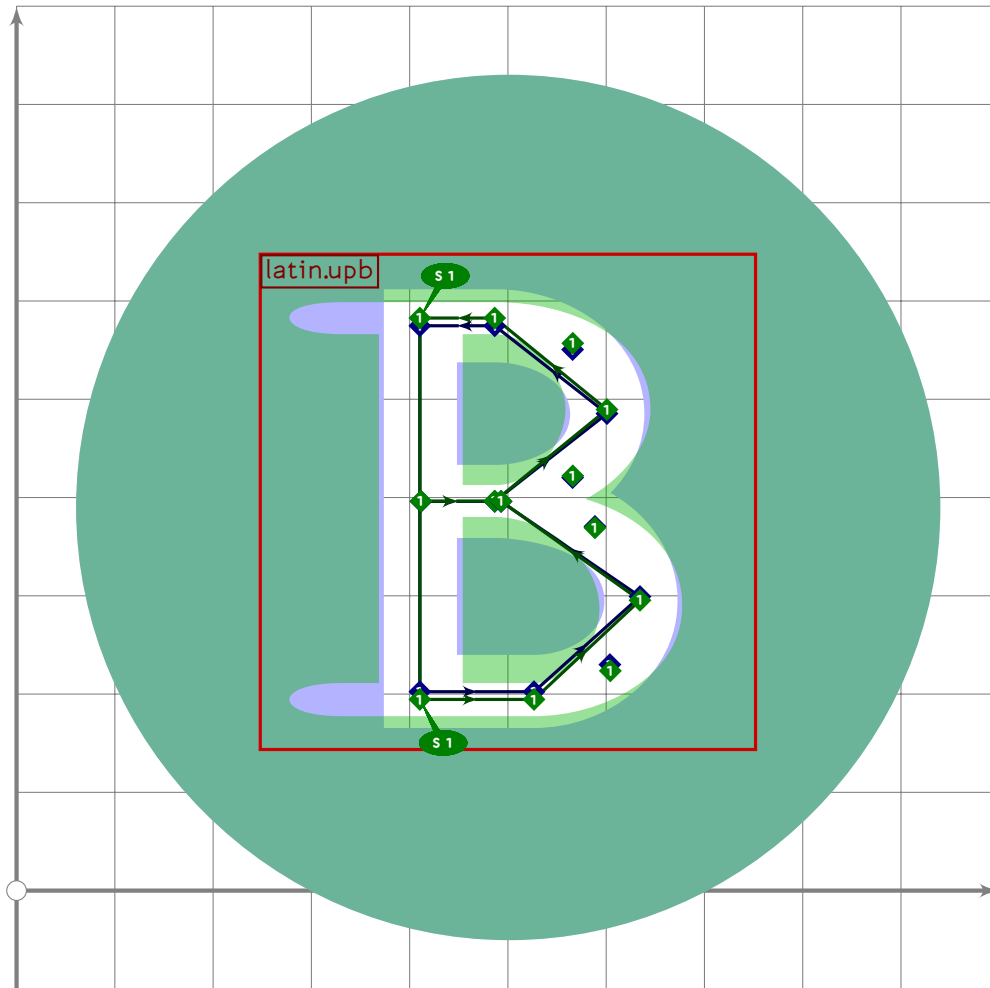
1F1



```

207 % A
208 % BACKGROUND 25CF
209 begint Suglyph('u1F150';80);
210   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upa);
211   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
212   tsu_render;
213 endtsuglyph;
214

```



1F1

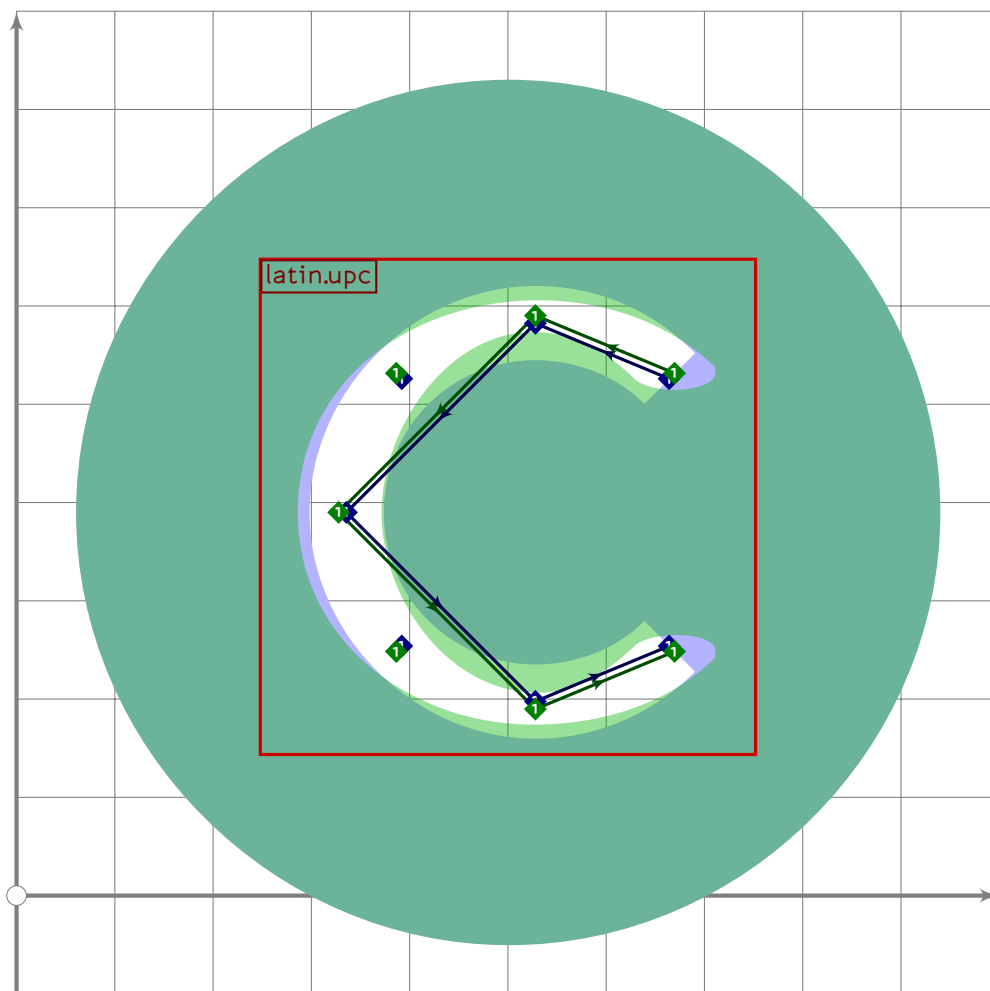
```

215 % B
216 % BACKGROUND 25CF
217 begint Suglyph("u1F151";81);
218   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upb);
219   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
220   tsu_render;
221 endtsuglyph;
222

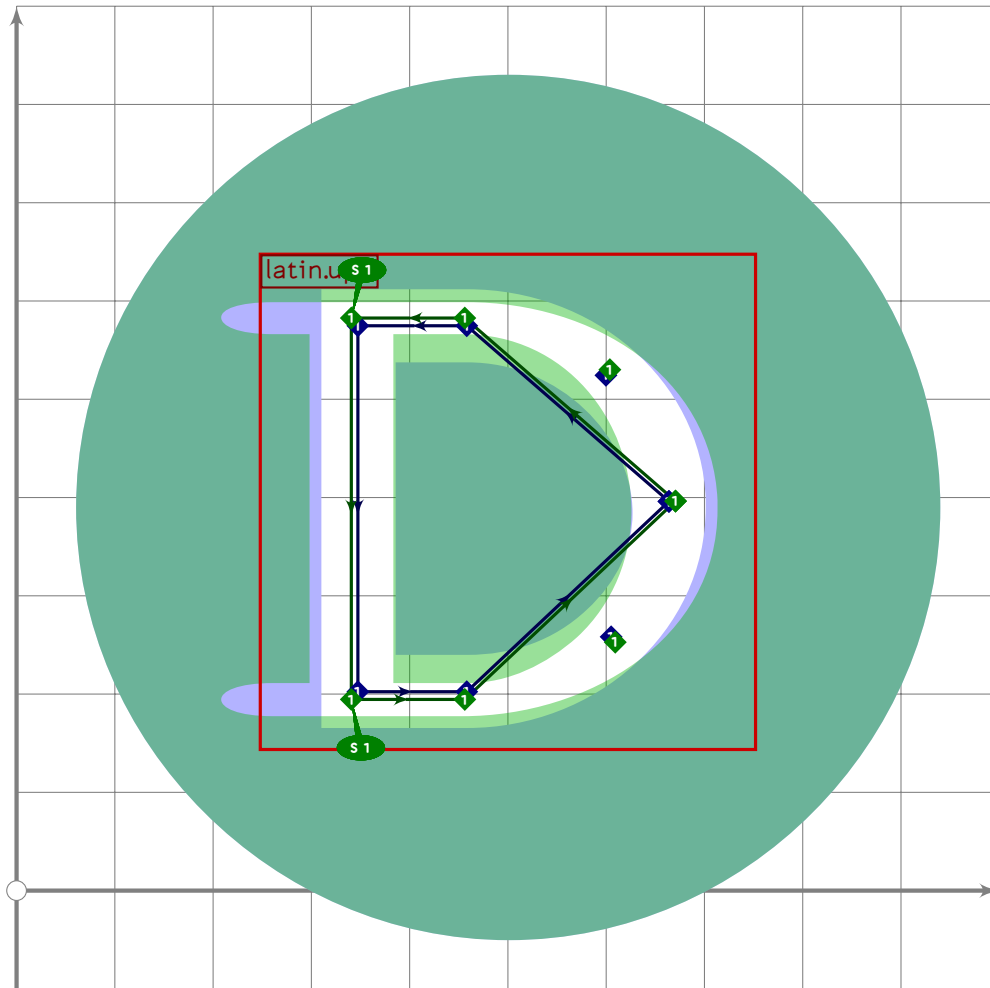
```

U+1F152
tsuku.u1F152

1F1



```
223 % C
224 % BACKGROUND 25CF
225 begint Suglyph("u1F152";82);
226   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upc);
227   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
228   tsu_render;
229 endtsuglyph;
230
```



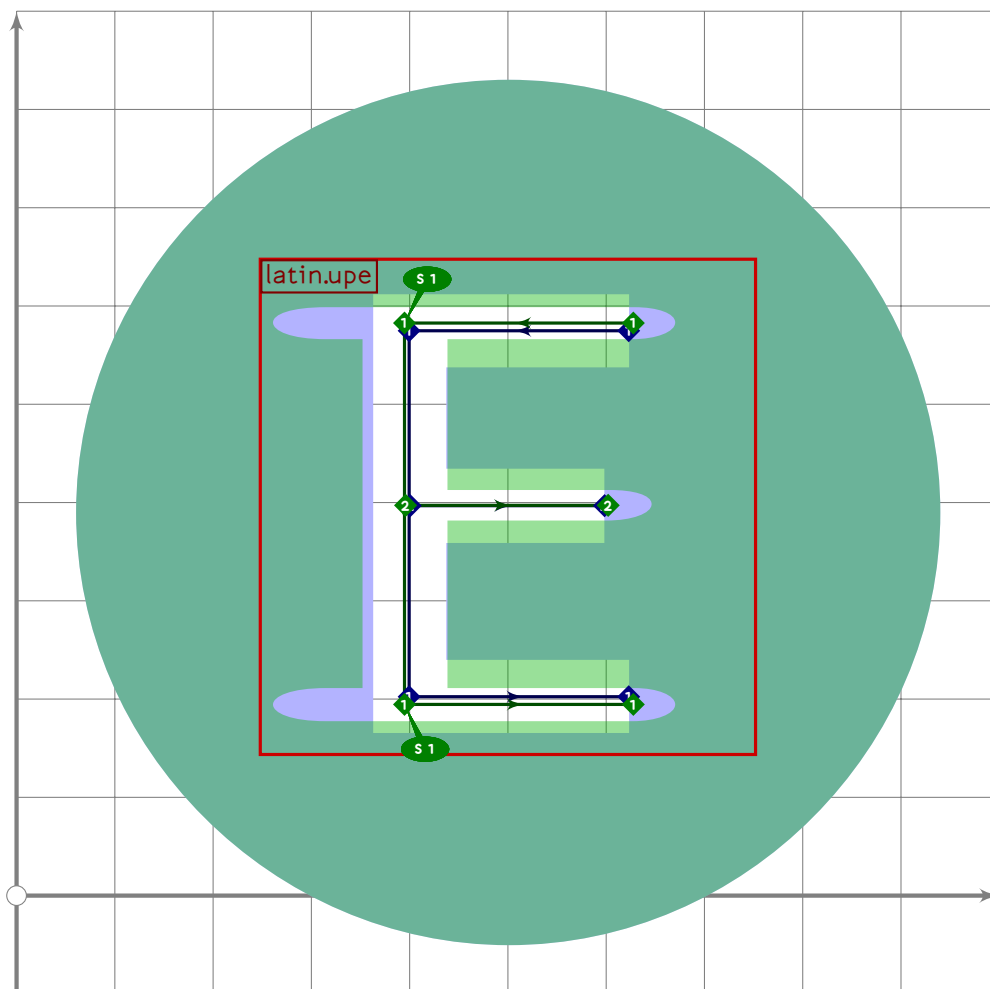
```

231 % D
232 % BACKGROUND 25CF
233 begintsuglyph("u1F153";83);
234   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upd);
235   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
236   tsu_render;
237 endtsuglyph;
238

```

U+1F154
tsuku.𐄚1F154

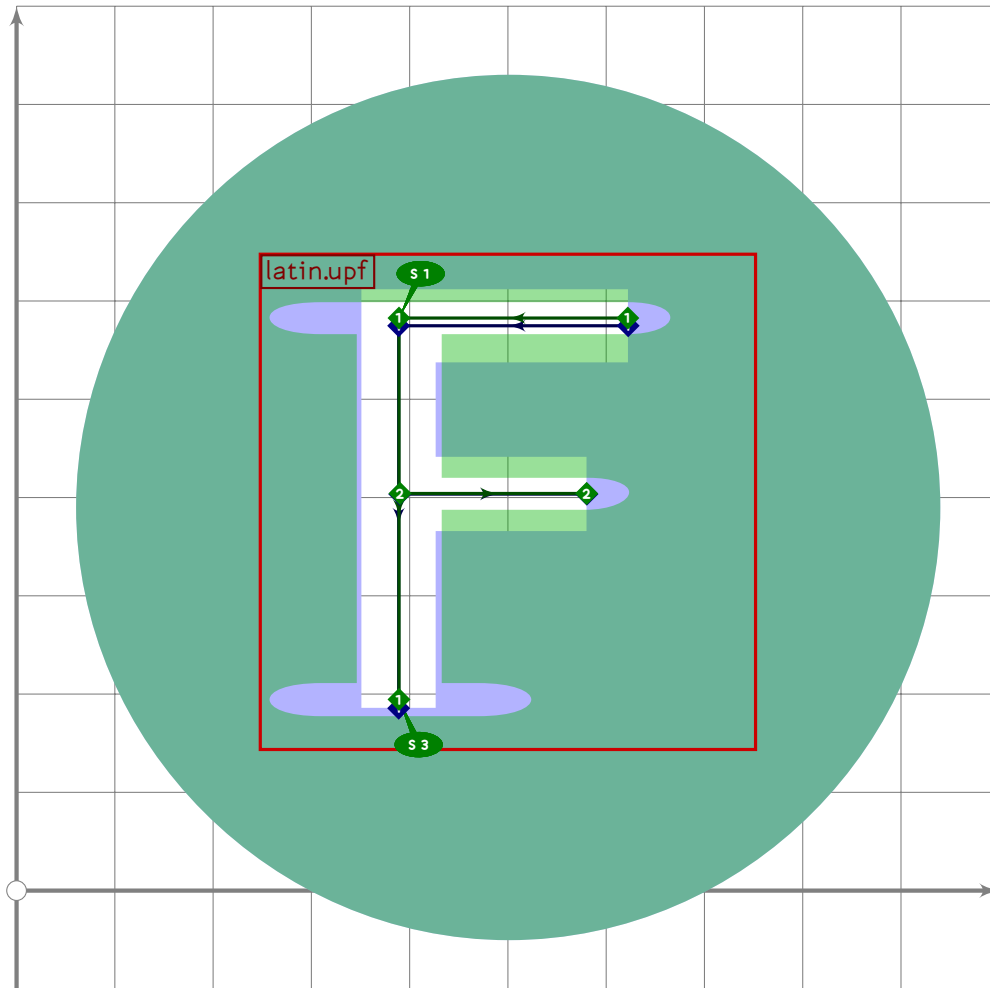
1F1



```

239 % E
240 % BACKGROUND 25CF
241 begint Suglyph('𐄚1F154';84);
242   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upe);
243   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
244   tsu_render;
245 endtsuglyph;
246

```



1F1

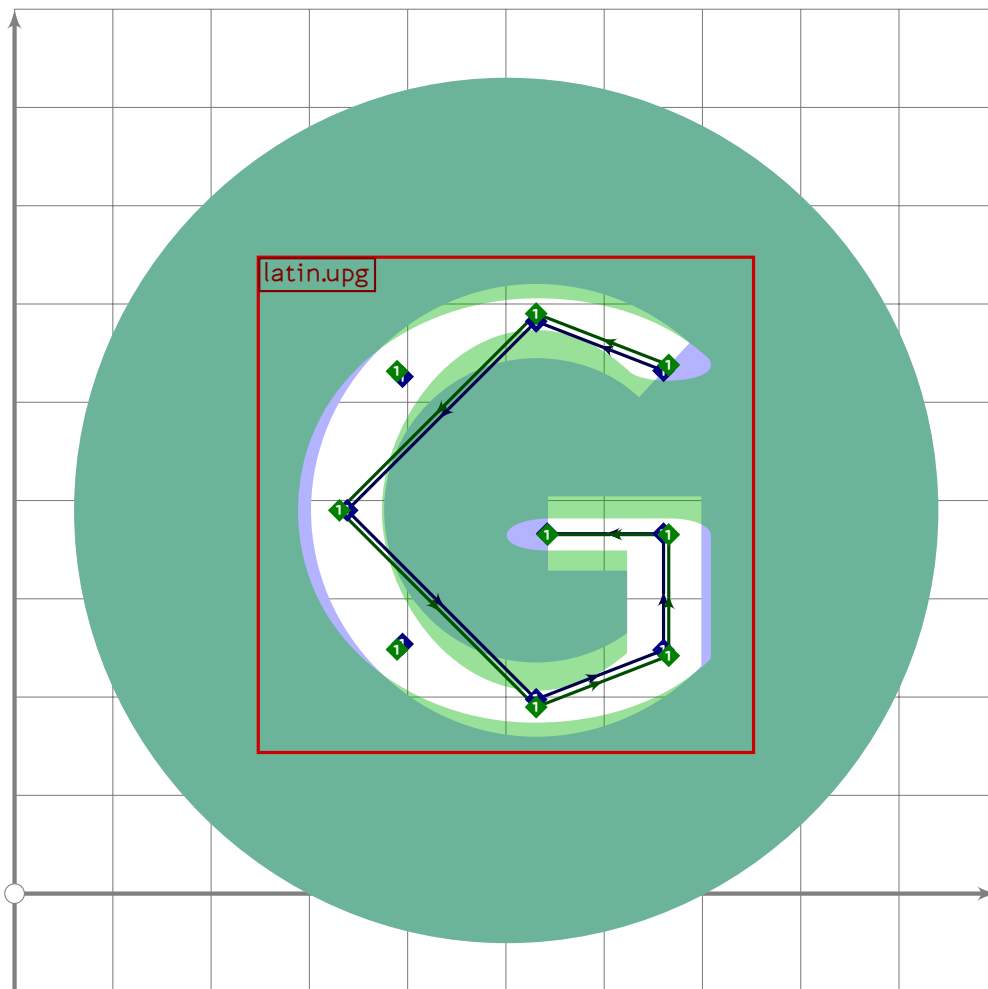
```

247 % F
248 % BACKGROUND 25CF
249 begint Suglyph("u1F155";85);
250   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upf);
251   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
252   tsu_render;
253 endtsuglyph;
254

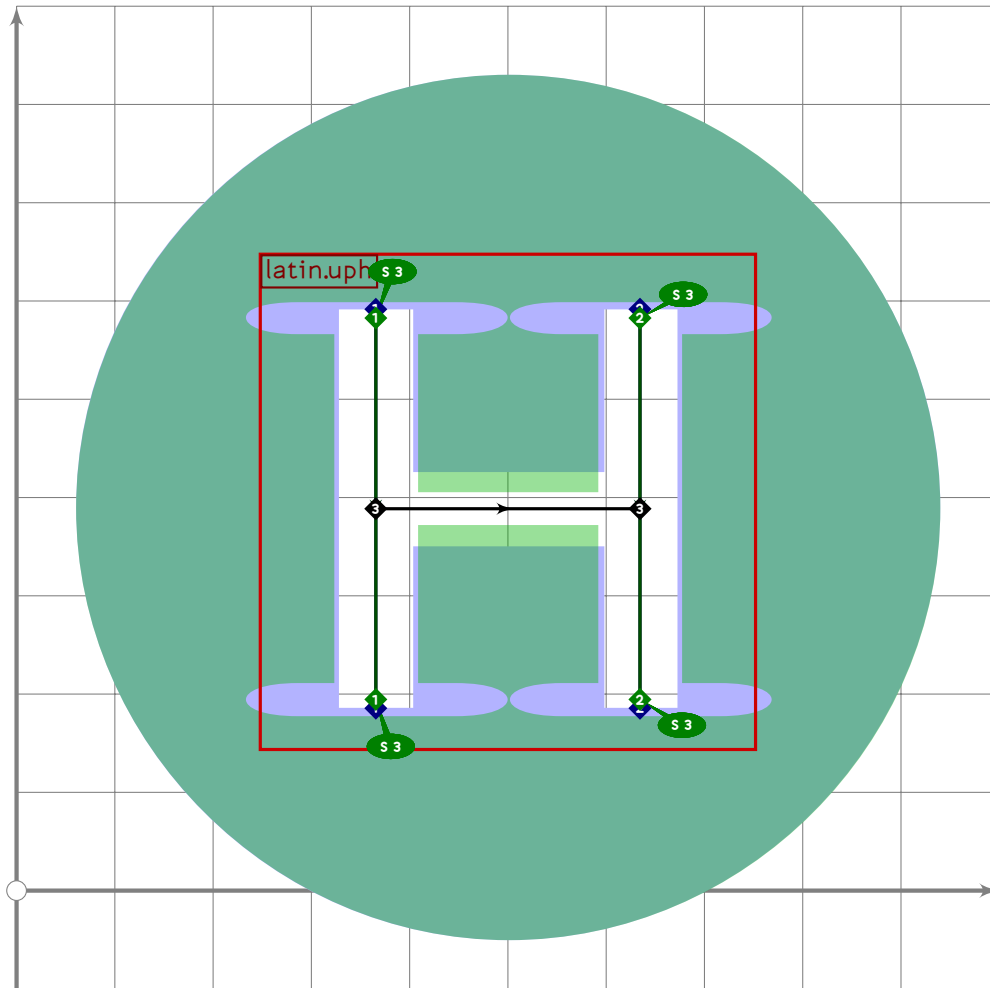
```


U+1F156
tsuku.𐄮1F156

1F1



```
255 % G
256 % BACKGROUND 25CF
257 begint Suglyph('𐄮1F156';86);
258   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upg);
259   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
260   tsu_render;
261 endtsuglyph;
262
```



1F1

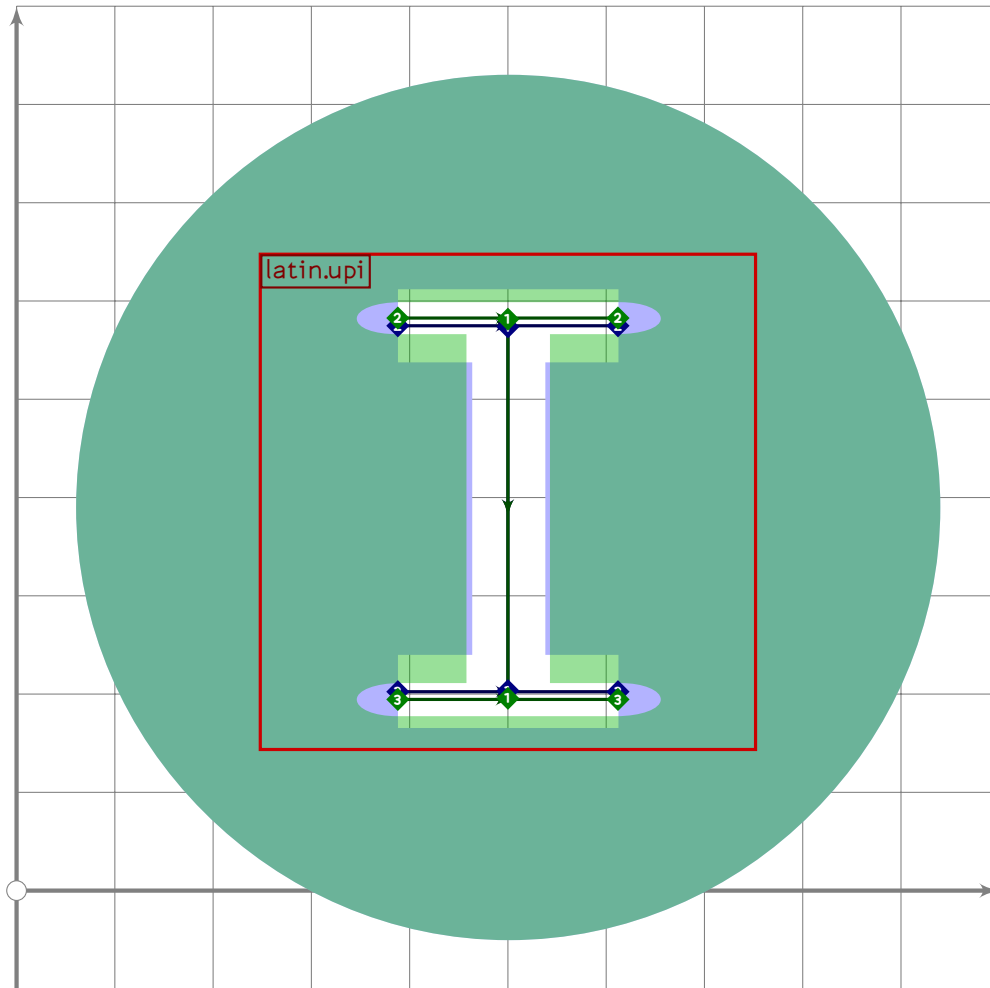
```

263 % H
264 % BACKGROUND 25CF
265 begintsuglyph('u1F157';87);
266   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.uph);
267   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
268   tsu_render;
269 endtsuglyph;
270

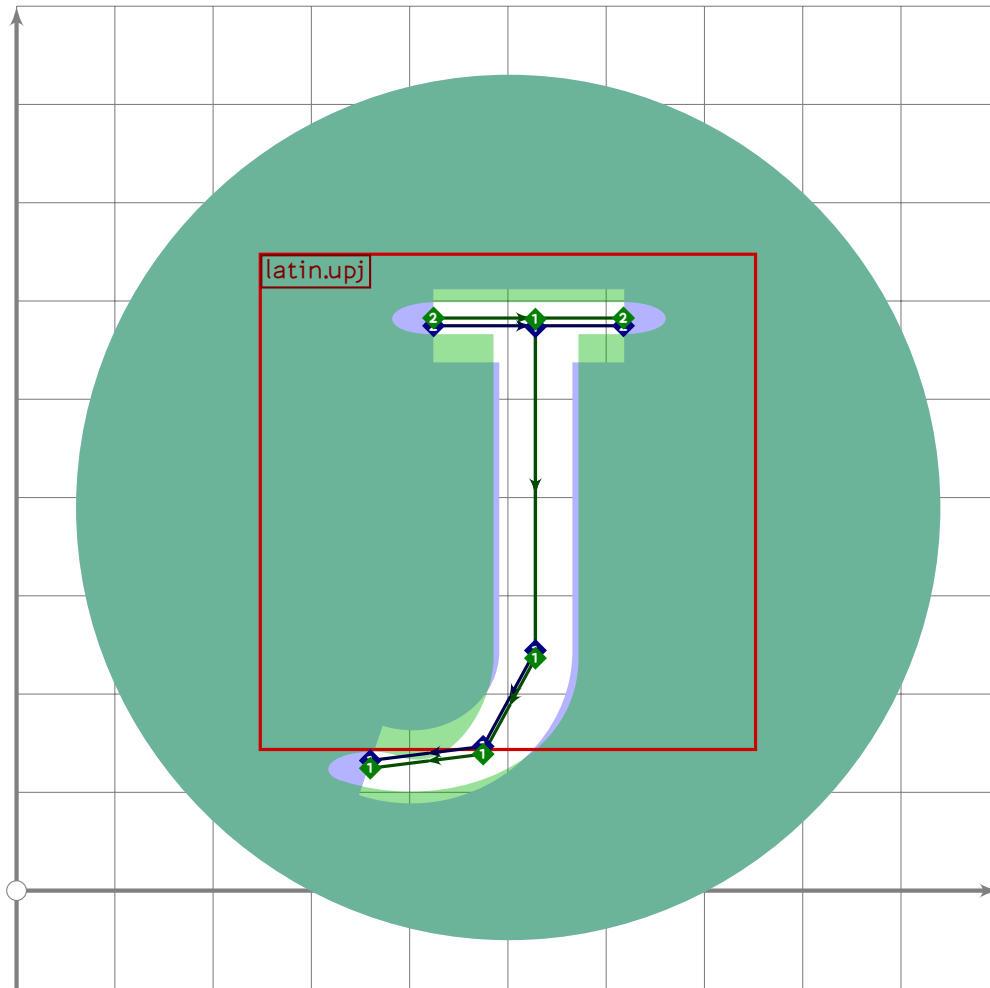
```

U+1F158
tsuku.ᵀ1F158

1F1



```
271 % I
272 % BACKGROUND 25CF
273 begint Suglyph('ᵀ1F158';88);
274   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upi);
275   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
276   tsu_render;
277 endtsuglyph;
278
```



1F1

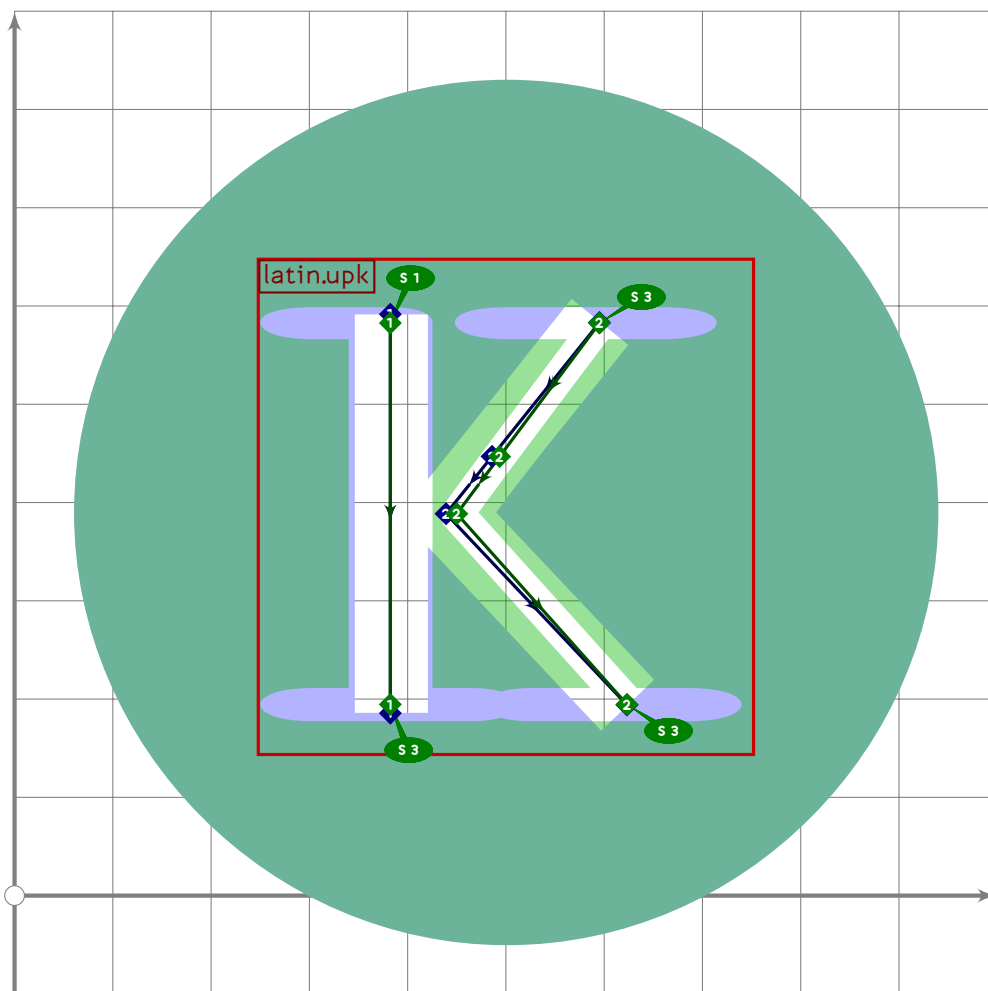
```

279 % J
280 % BACKGROUND 25CF
281 begint Suglyph('u1F159';89);
282   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upj);
283   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
284   tsu_render;
285 endtsuglyph;
286

```

U+1F15A
tsuku.𐀝1F15A

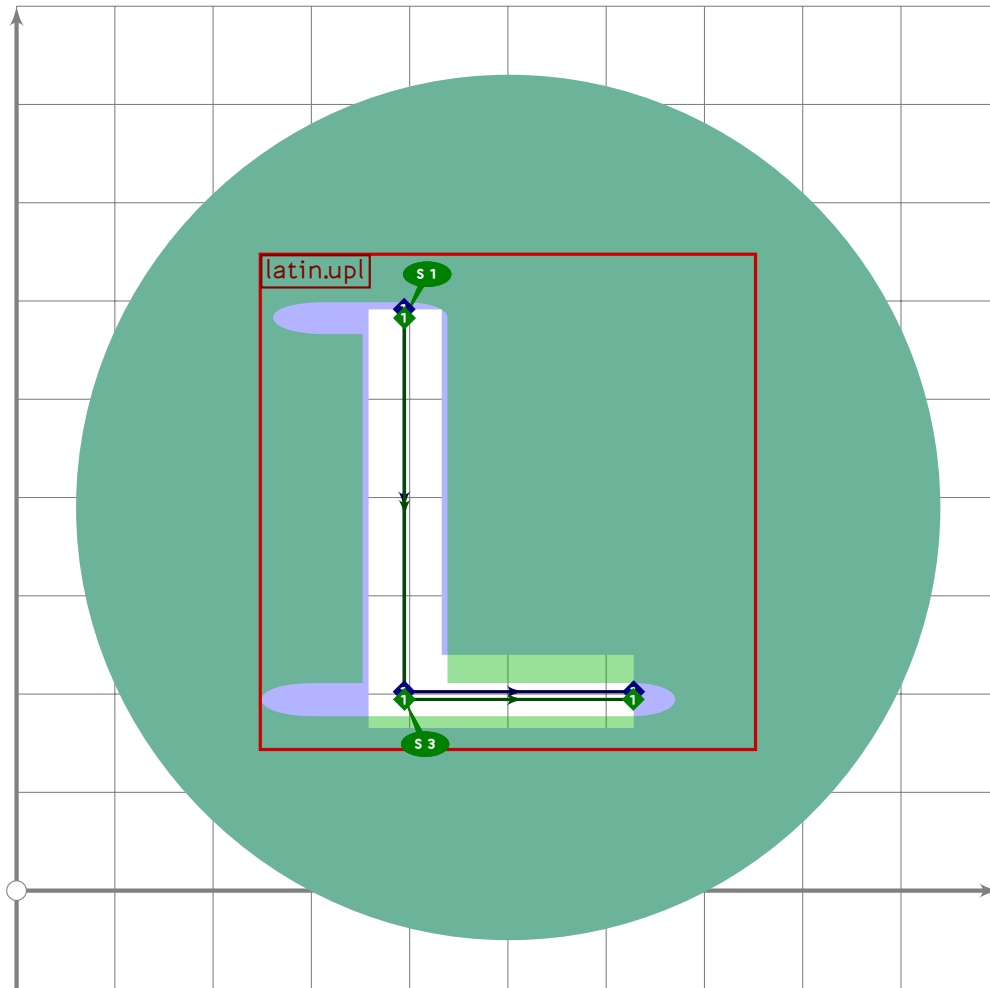
1F1



```

287 % K
288 % BACKGROUND 25CF
289 begint Suglyph('𐀝1F15A';90);
290   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upk);
291   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
292   tsu_render;
293 endtsuglyph;
294

```



1F1

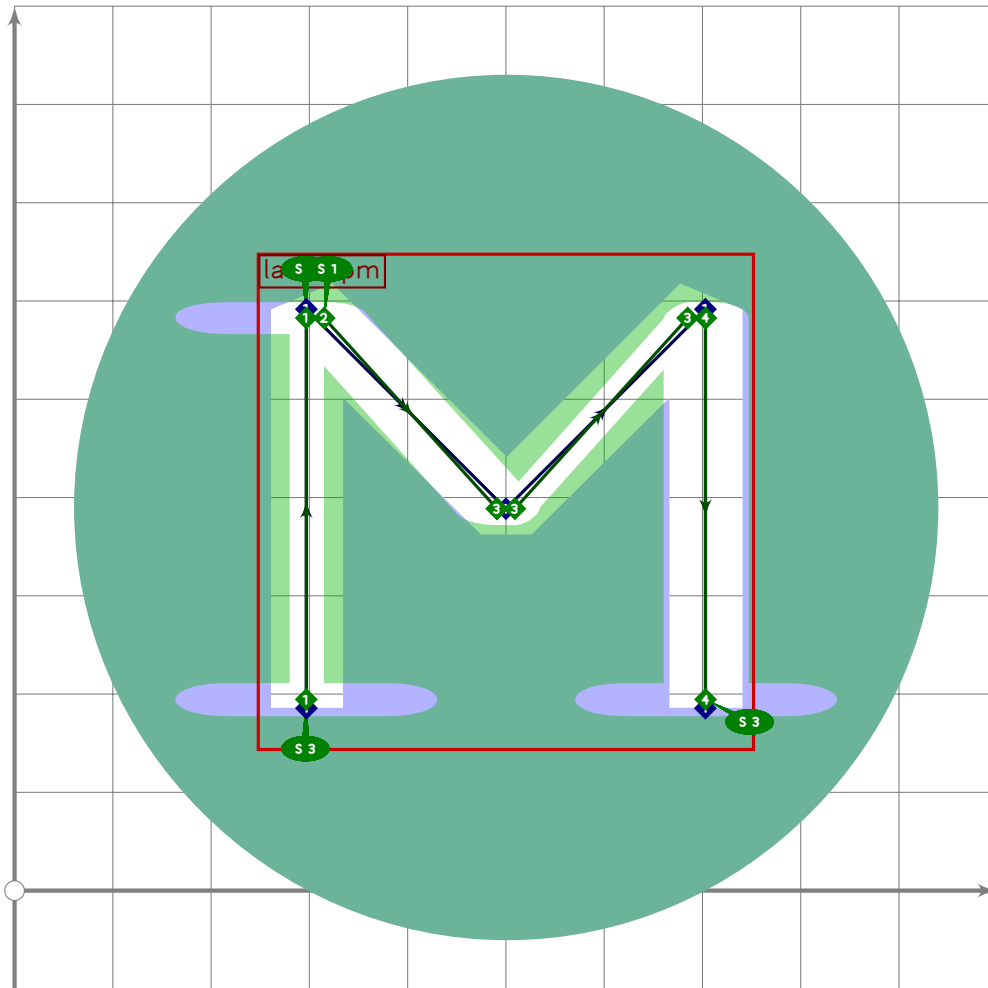
```

295 % L
296 % BACKGROUND 25CF
297 begintsuglyph('u1F15B';91);
298   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upl);
299   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
300   tsu_render;
301 endtsuglyph;
302

```

U+1F15C
tsuku.ŭ1F15C

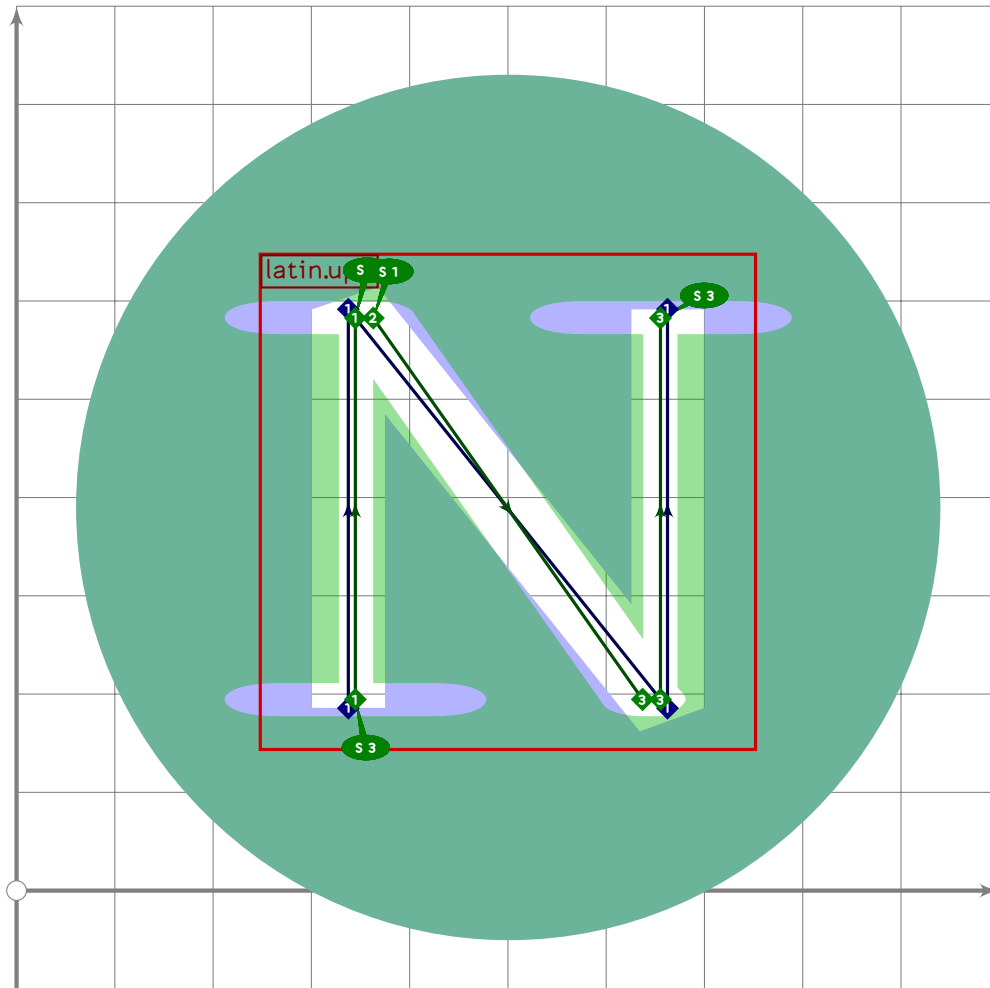
1F1



```

303 % M
304 % BACKGROUND 25CF
305 begint Suglyph('u1F15C';92);
306 tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upm);
307 i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
308 tsu_render;
309 endtsuglyph;
310

```



1F1

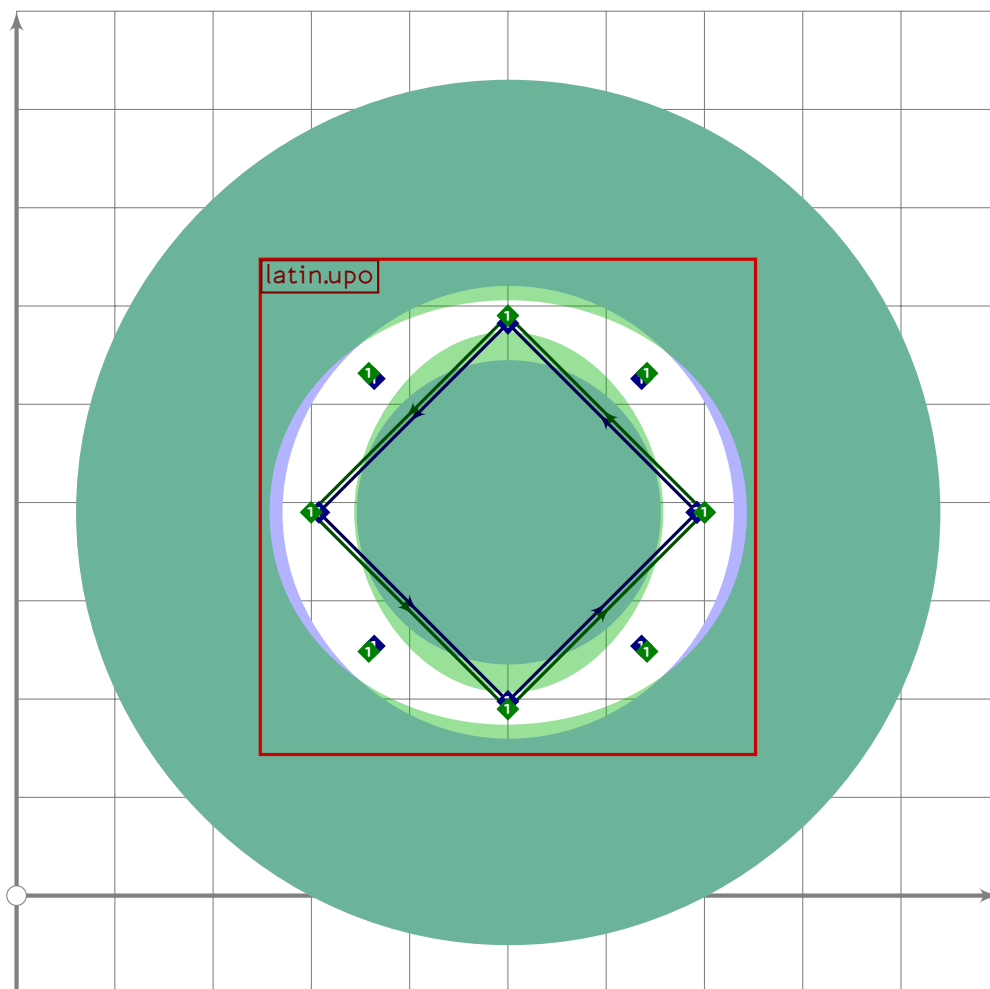
```

311 % N
312 % BACKGROUND 25CF
313 begintsuglyph('u1F15D';93);
314   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upn);
315   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
316   tsu_render;
317 endtsuglyph;
318

```


U+1F15E
tsuku.𐤥𐤥𐤥

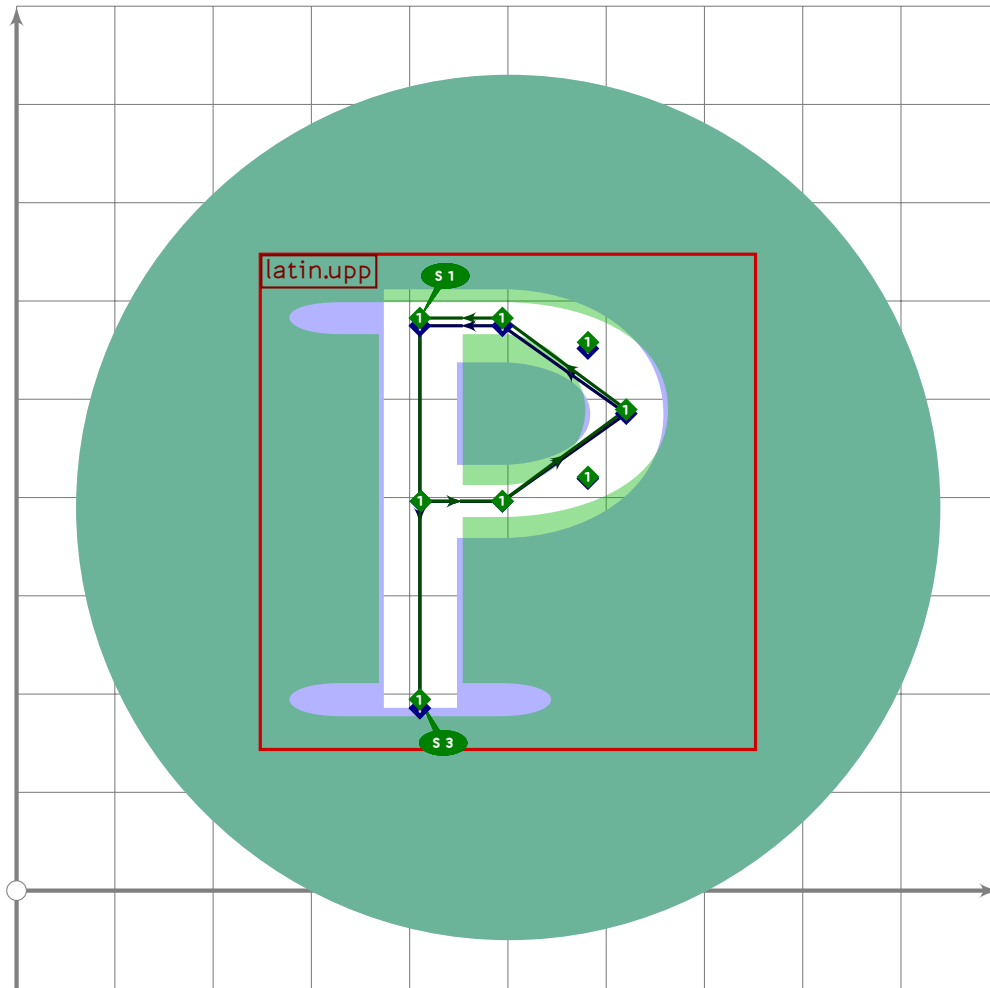
1F1



```

319 % O
320 % BACKGROUND 25CF
321 begint Suglyph('𐤥𐤥𐤥';94);
322   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upo);
323   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
324   tsu_render;
325 endtsuglyph;
326

```



1F1

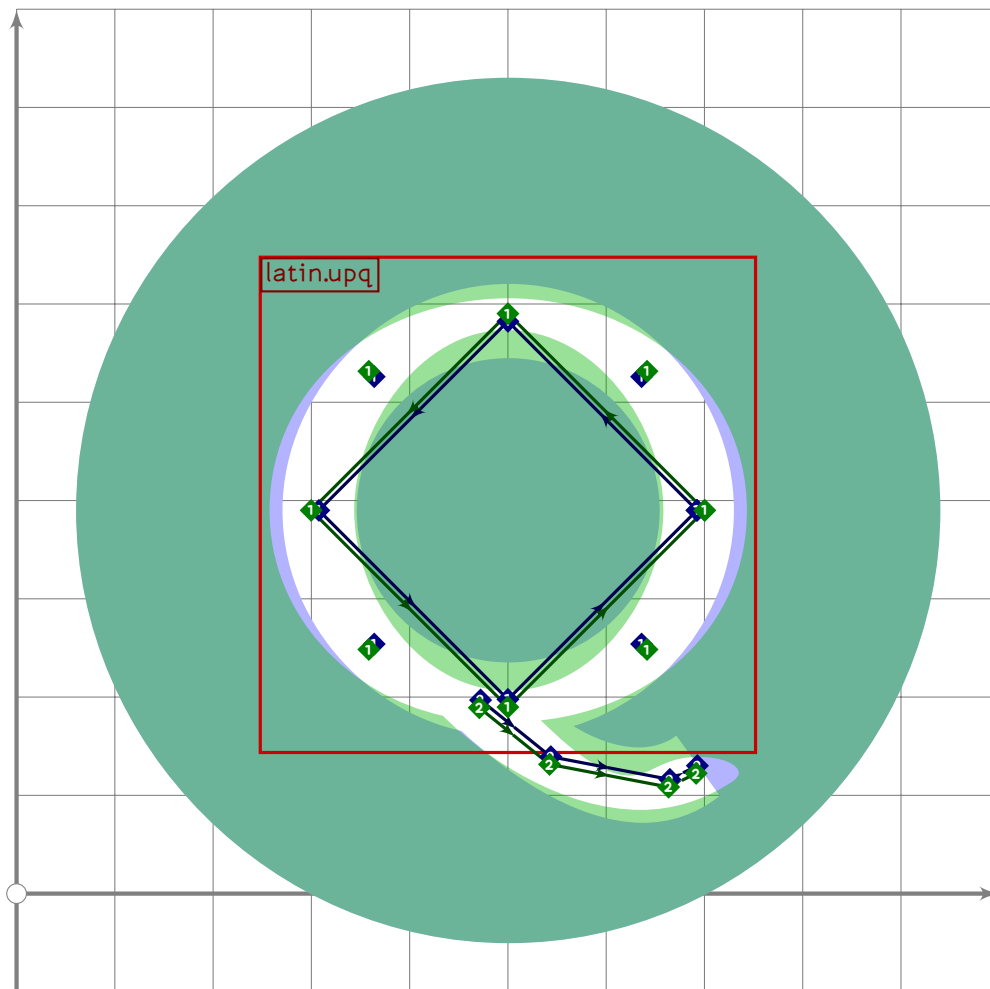
```

327 % P
328 % BACKGROUND 25CF
329 begintsuglyph('u1F15F';95);
330 tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upp);
331 i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
332 tsu_render;
333 endtsuglyph;
334

```

U+1F160
tsuku.u1F160

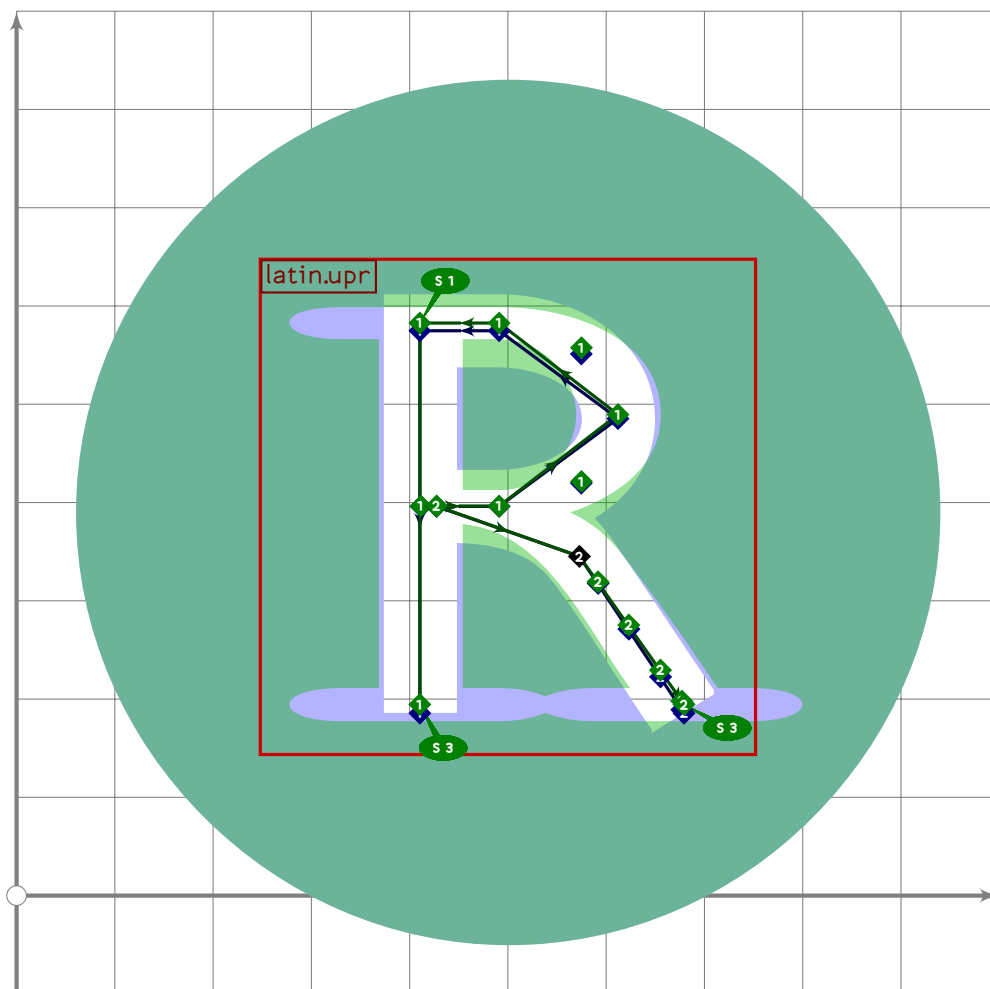
1F1



```

335 % Q
336 % BACKGROUND 25CF
337 begintsuglyph('u1F160';96);
338   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upq);
339   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
340   tsu_render;
341 endtsuglyph;
342

```



1F1

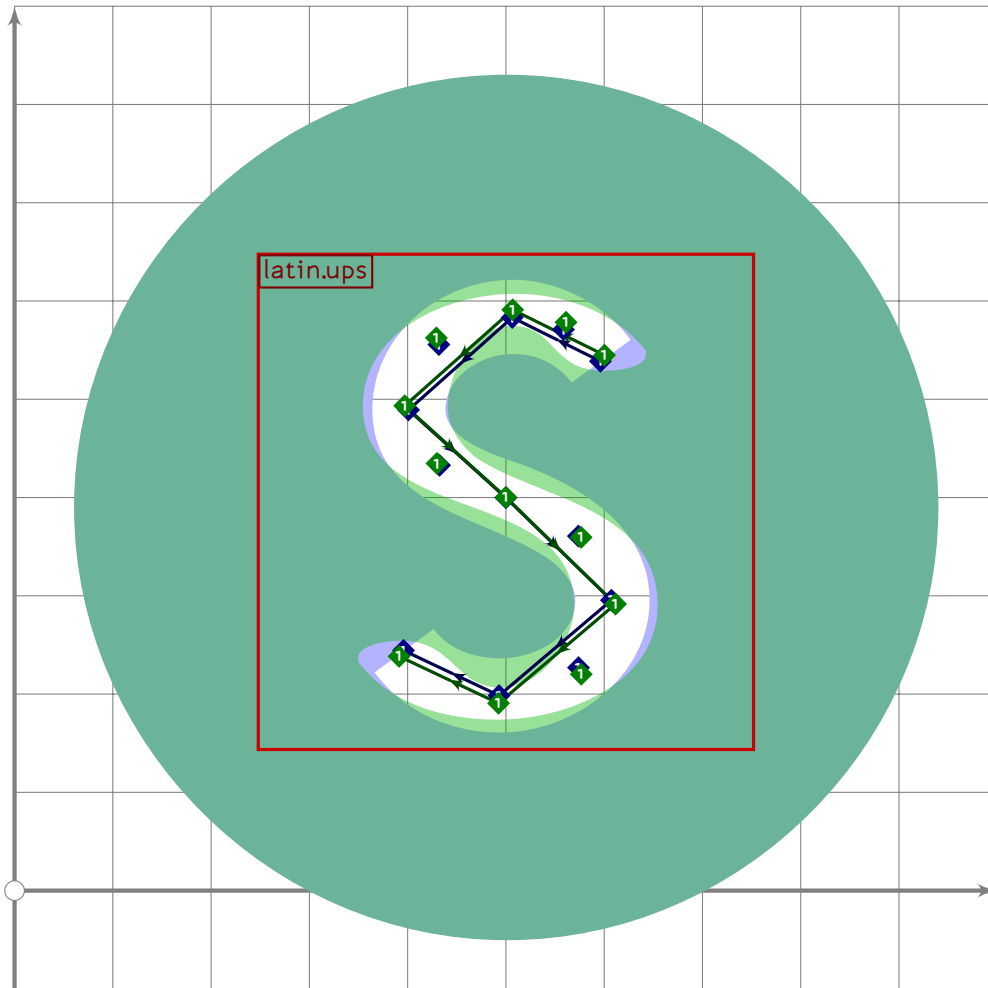
```

343 % R
344 % BACKGROUND 25CF
345 begint Suglyph('u1F161';97);
346   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upr);
347   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
348   tsu_render;
349 endtsuglyph;
350

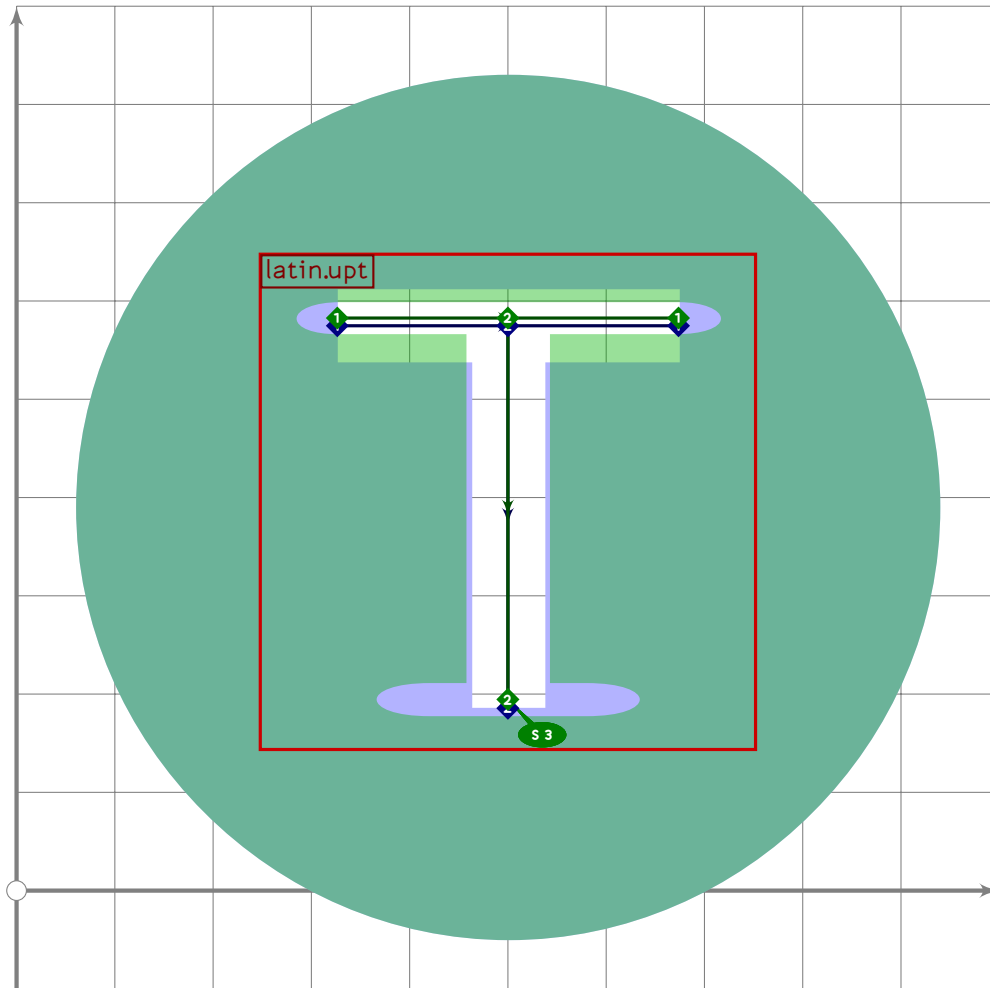
```

U+1F162
tsuku.u1F162

1F1



```
351 % S
352 % BACKGROUND 25CF
353 begint Suglyph("u1F162";98);
354   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.ups);
355   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
356   tsu_render;
357 endtsuglyph;
358
```



1F1

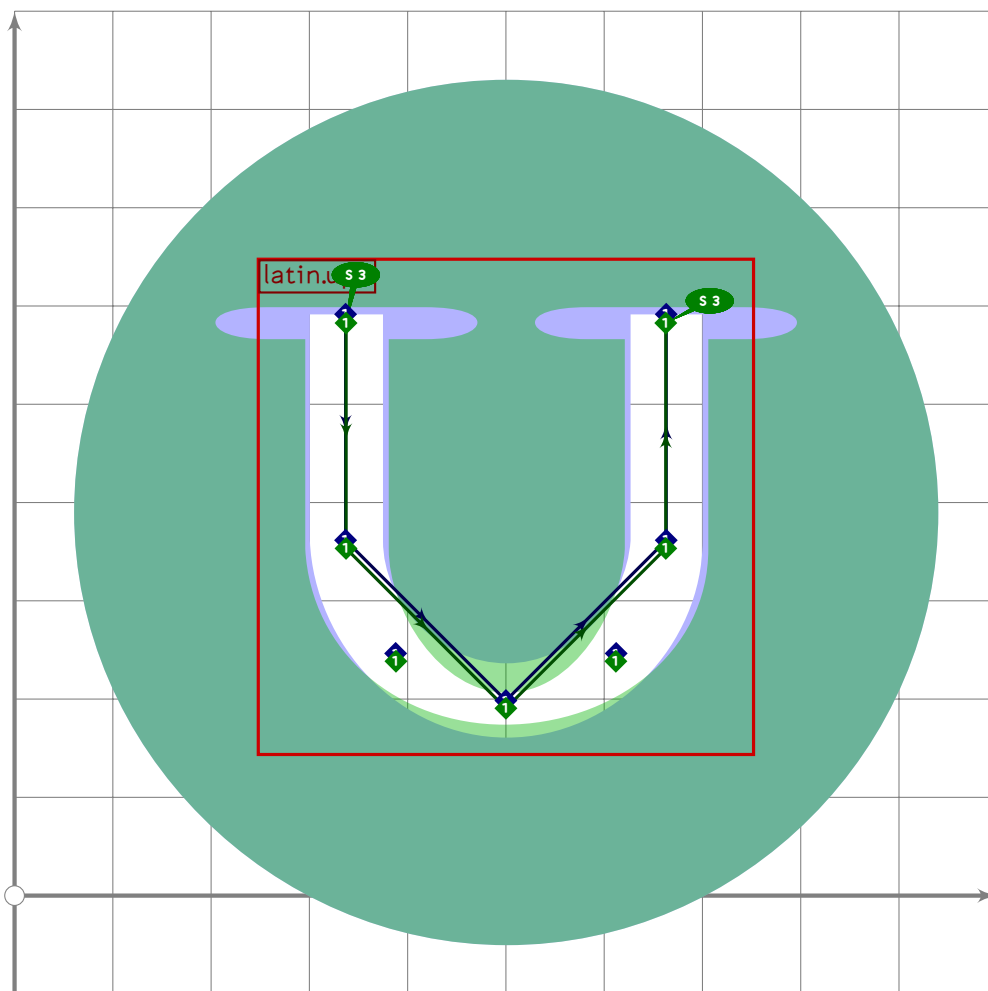
```

359 % T
360 % BACKGROUND 25CF
361 begint Suglyph("u1F163";99);
362   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upt);
363   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
364   tsu_render;
365 endtsuglyph;
366

```

U+1F164
tsuku.u1F164

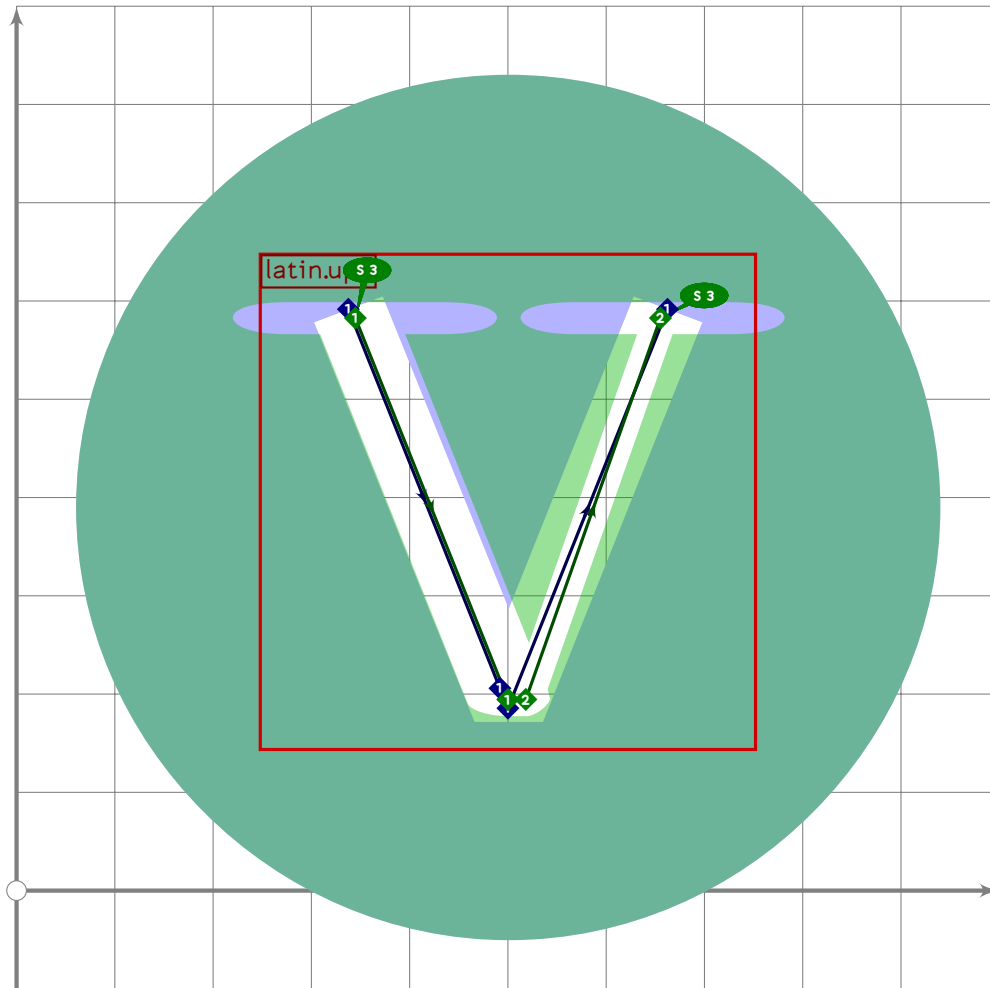
1F1



```

367 % U
368 % BACKGROUND 25CF
369 begintsuglyph("u1F164";100);
370 tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upu);
371 i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
372 tsu_render;
373 endtsuglyph;
374

```



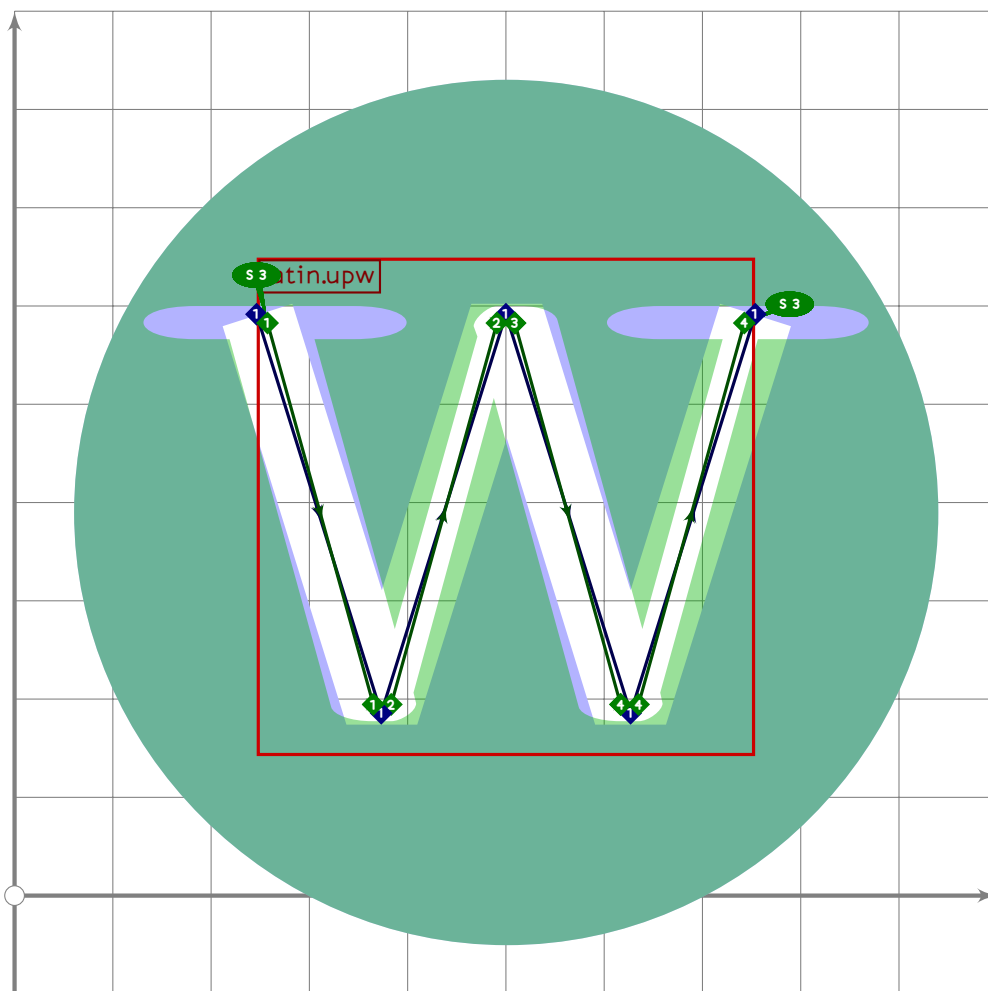
```

375 % V
376 % BACKGROUND 25CF
377 begint Suglyph("u1F165";101);
378   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upv);
379   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
380   tsu_render;
381 endtsuglyph;
382

```


U+1F166
tsuku.u1F166

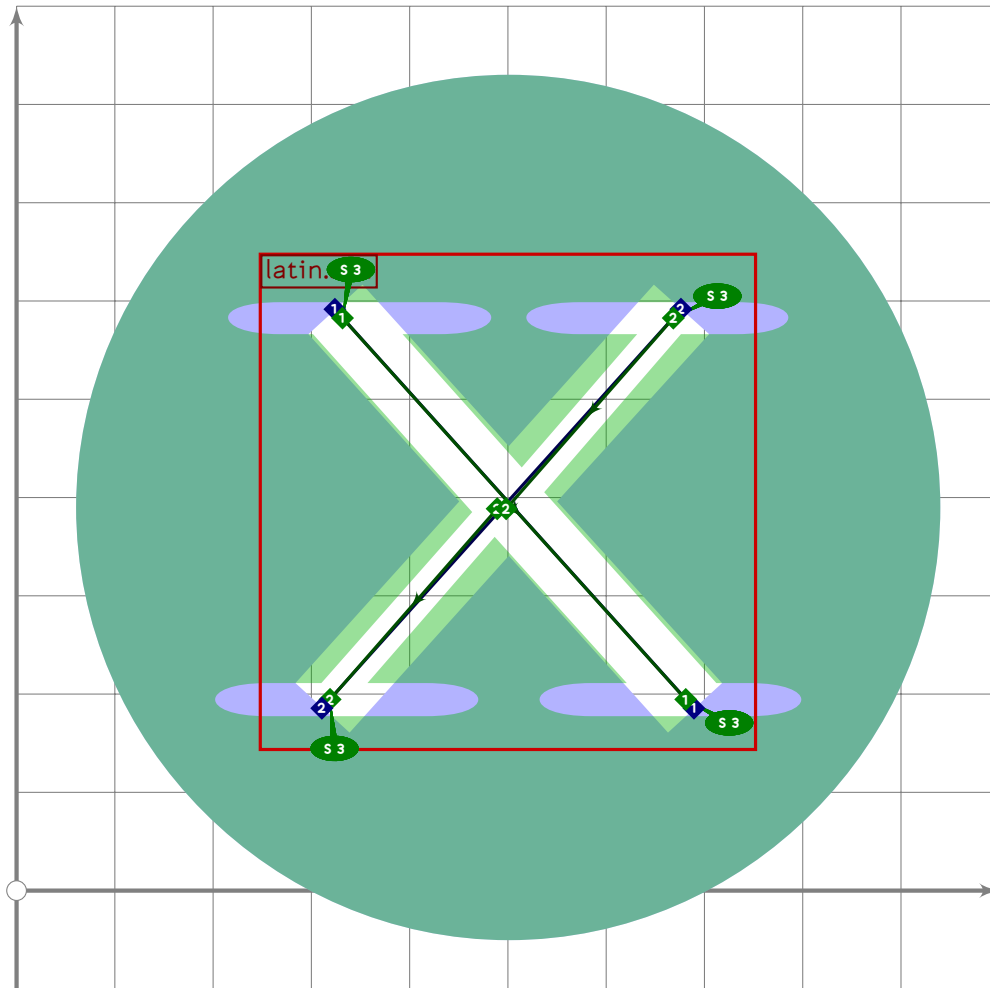
1F1



```

383 % W
384 % BACKGROUND 25CF
385 begint Suglyph("u1F166";102);
386   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upw);
387   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
388   tsu_render;
389 endtsuglyph;
390

```



1F1

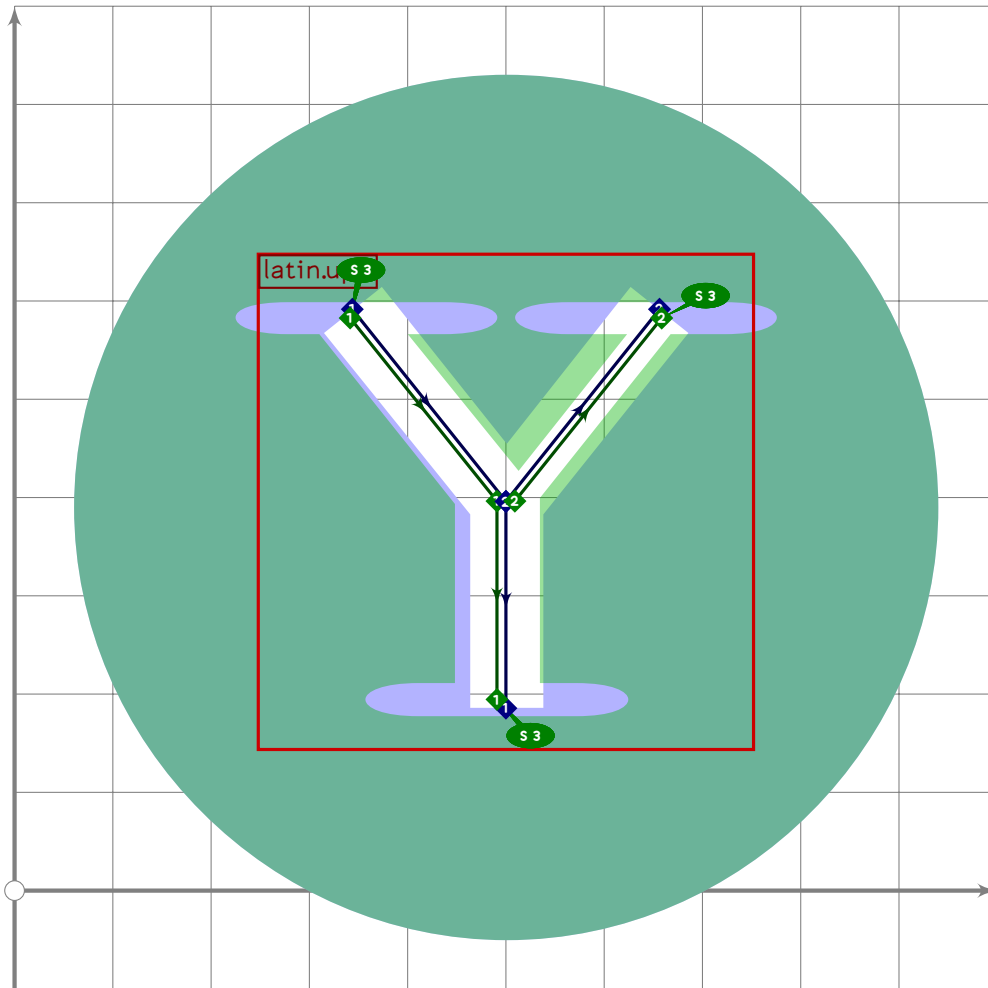
```

391 % X
392 % BACKGROUND 25CF
393 begint Suglyph('u1F167',103);
394   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upx);
395   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
396   tsu_render;
397 endtsuglyph;
398

```

U+1F168
tsuku.u1F168

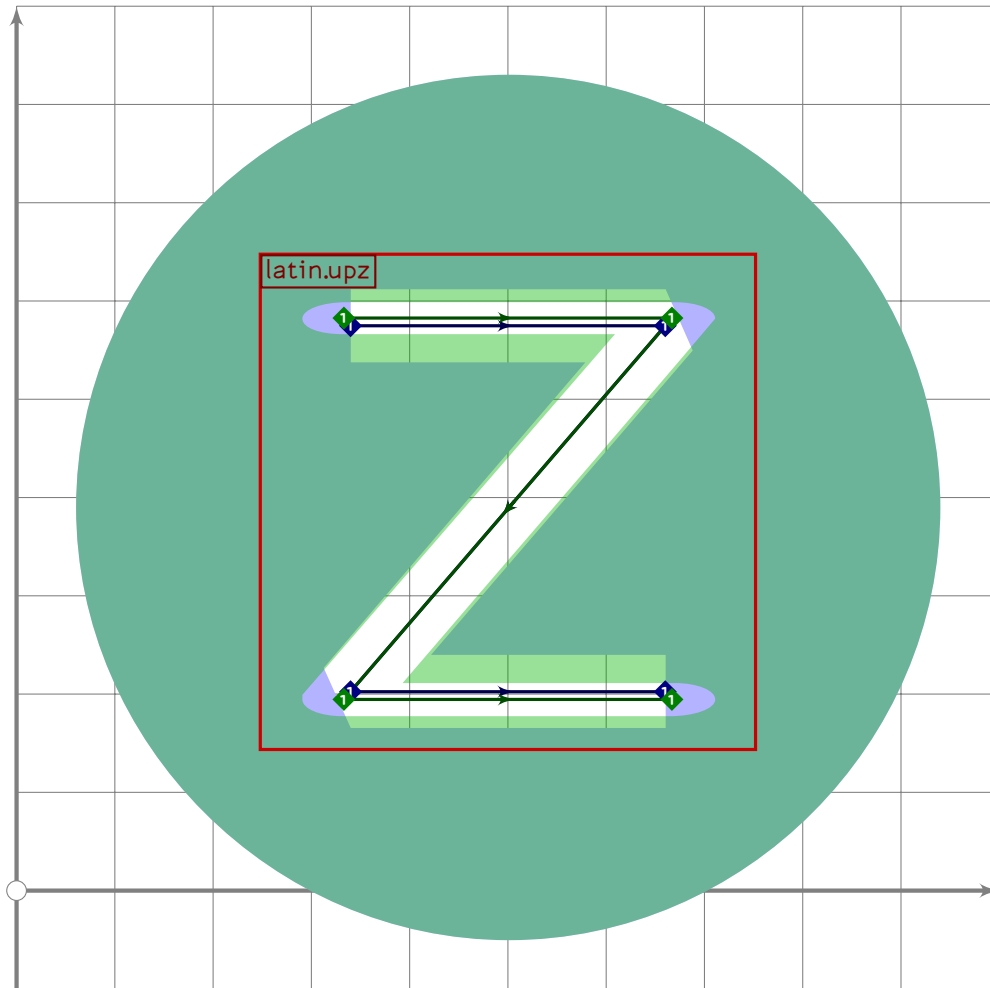
1F1



```

399 % Y
400 % BACKGROUND 25CF
401 begint Suglyph('u1F168',104);
402   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upy);
403   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
404   tsu_render;
405 endtsuglyph;
406

```



1F1

```

407 % Z
408 % BACKGROUND 25CF
409 begintsuglyph('u1F169';105);
410   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upz);
411   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
412   tsu_render;
413 endtsuglyph;
414
415
416

```

Inverse Squared Latin

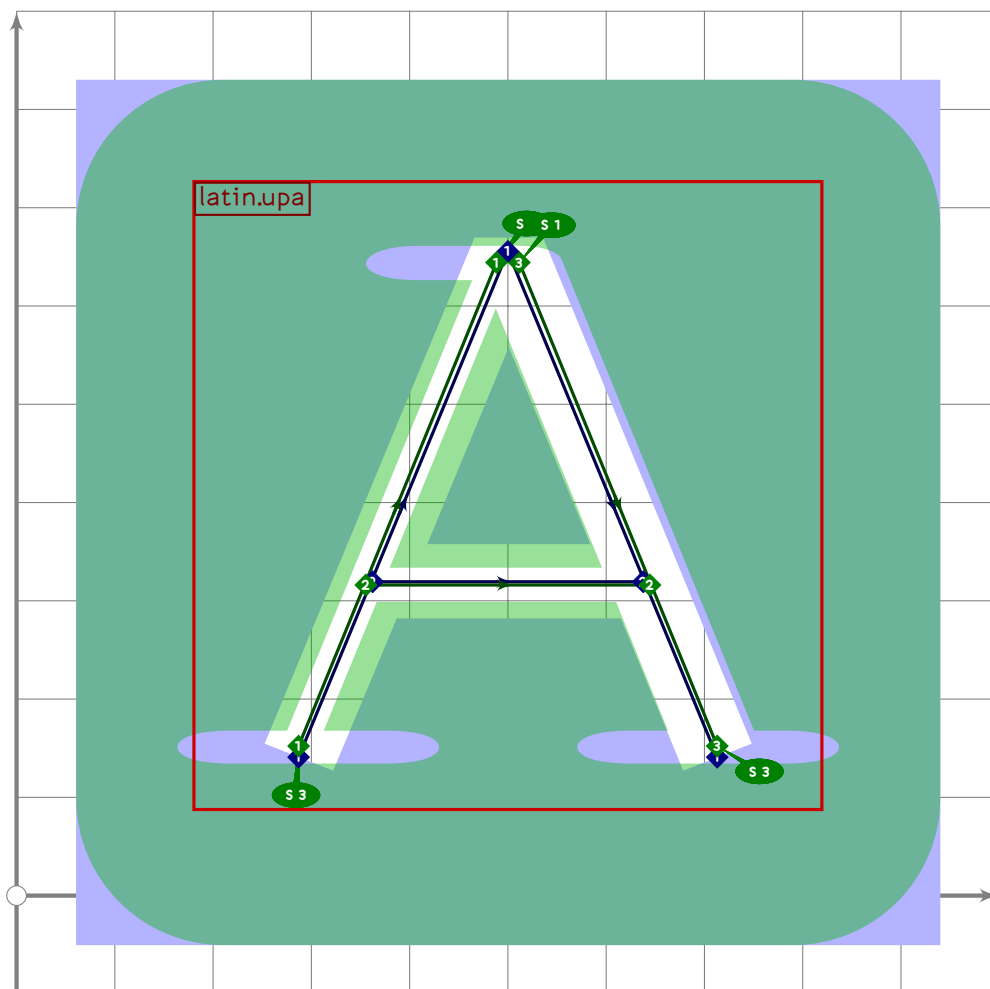
```

417 % INVERSE SQUARED LATIN
418

```

U+1F170
tsuku.ṹ1F170

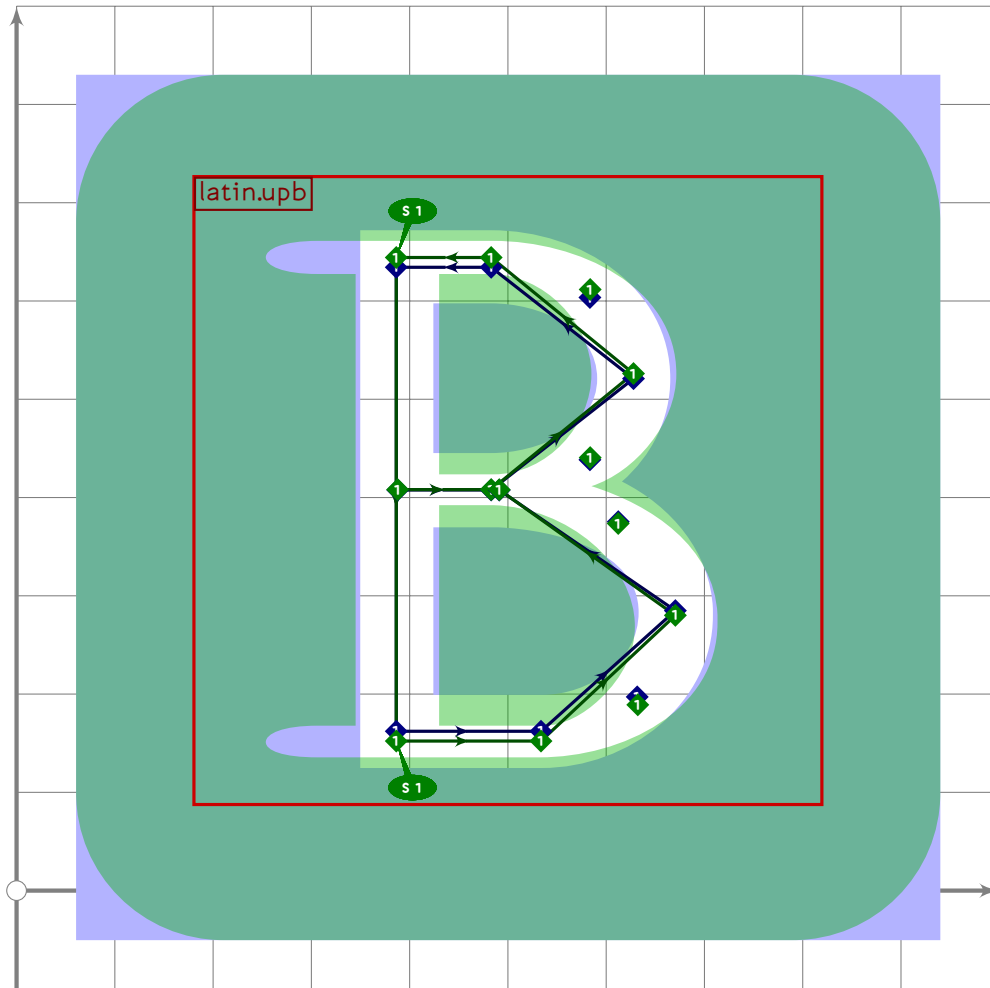
1F1



```

419 % A
420 % BACKGROUND F1712
421 begint Suglyph('ṹ1F170',112);
422   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upa);
423   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
424   tsu_render;
425 endtsuglyph;
426

```



1F1

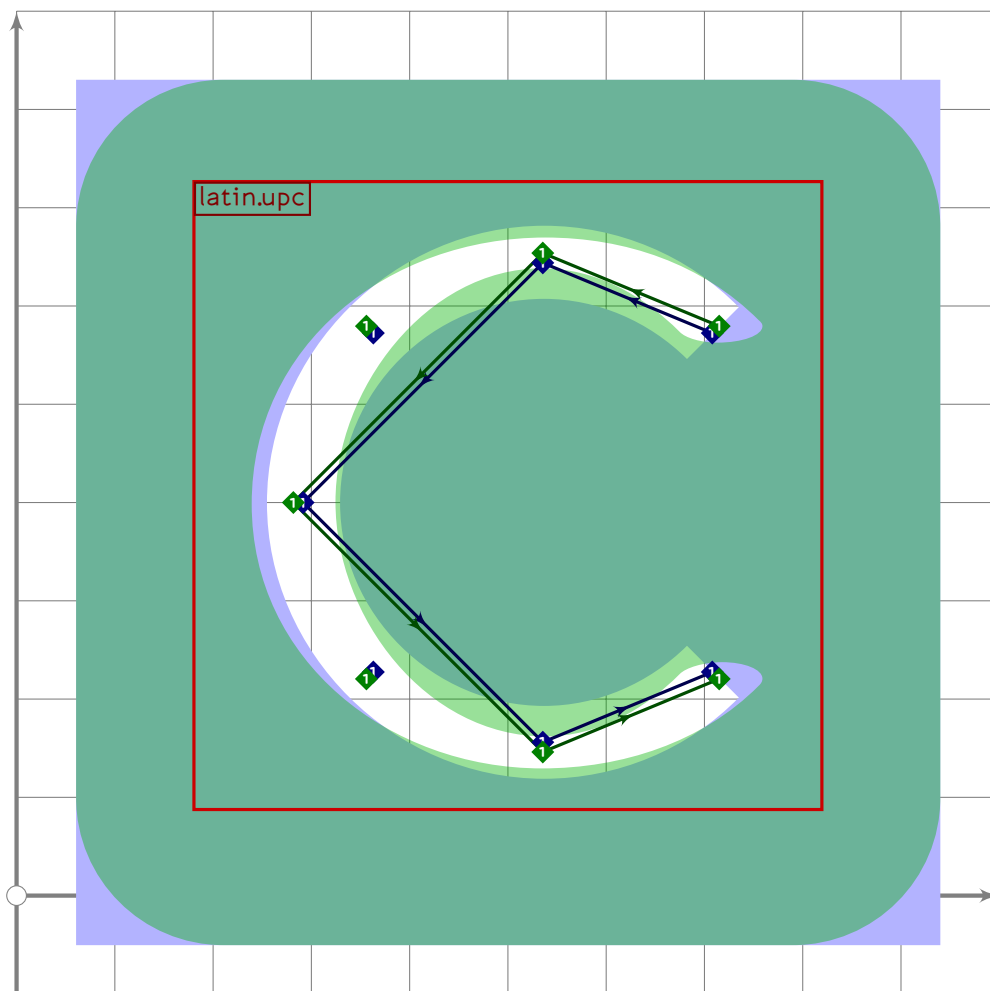
```

427 % B
428 % BACKGROUND F1712
429 begint Suglyph('u1F171';113);
430   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upb);
431   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
432   tsu_render;
433 endtsuglyph;
434

```

U+1F172
tsuku.ṽ1F172

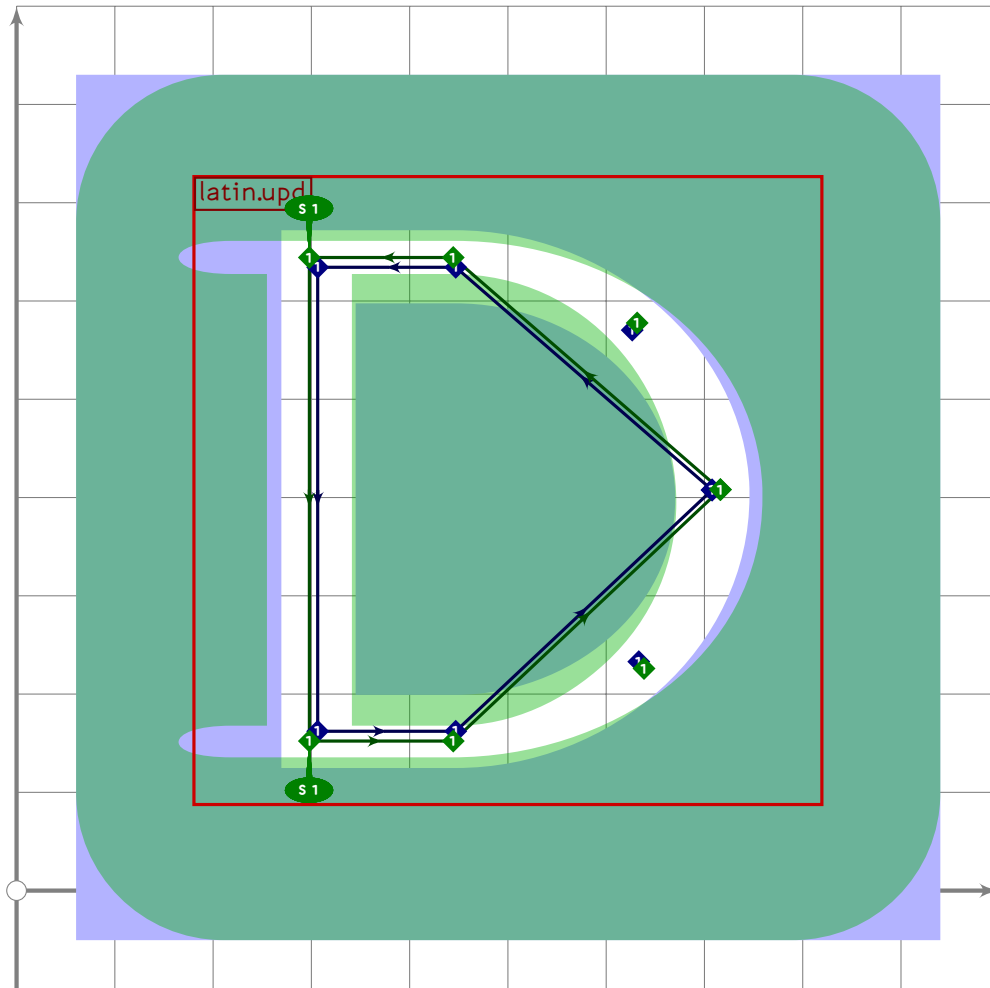
1F1



```

435 % C
436 % BACKGROUND F1712
437 begintsuglyph('ṽ1F172',114);
438 tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upc);
439 i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
440 tsu_render;
441 endtsuglyph;
442

```



1F1

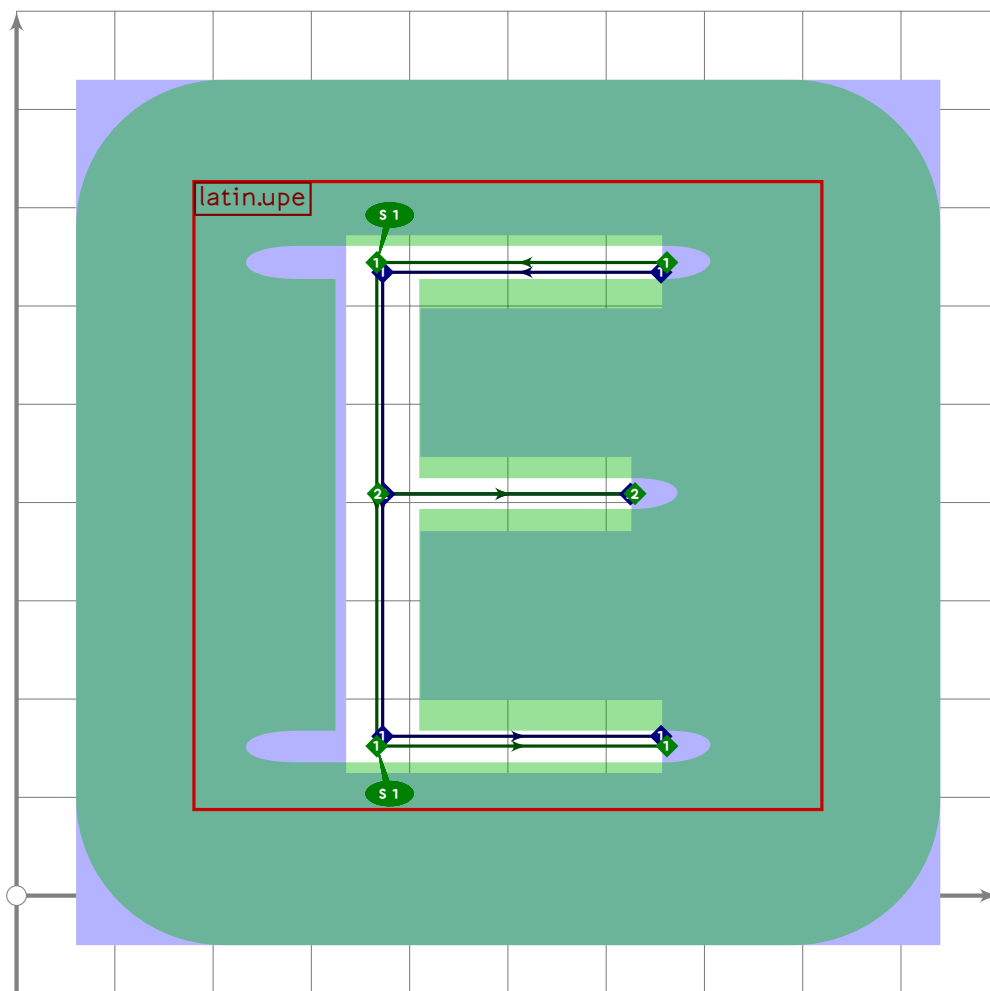
```

443 % D
444 % BACKGROUND F1712
445 begintsuglyph('u1F173';115);
446 tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upd);
447 i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
448 tsu_render;
449 endtsuglyph;
450

```


U+1F174
tsuku.𐄦174

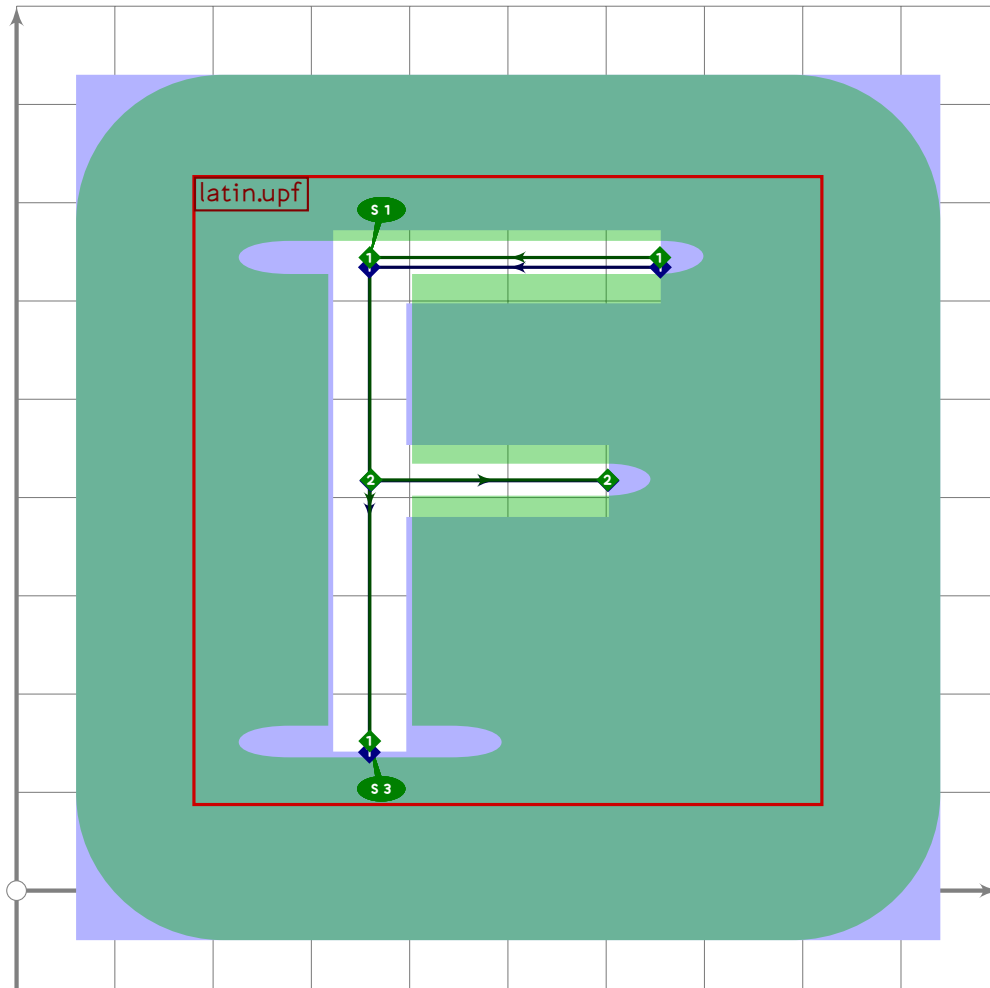
1F1



```

451 % E
452 % BACKGROUND F1712
453 begint Suglyph('𐄦174';116);
454   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upe);
455   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
456   tsu_render;
457 endtsuglyph;
458

```



1F1

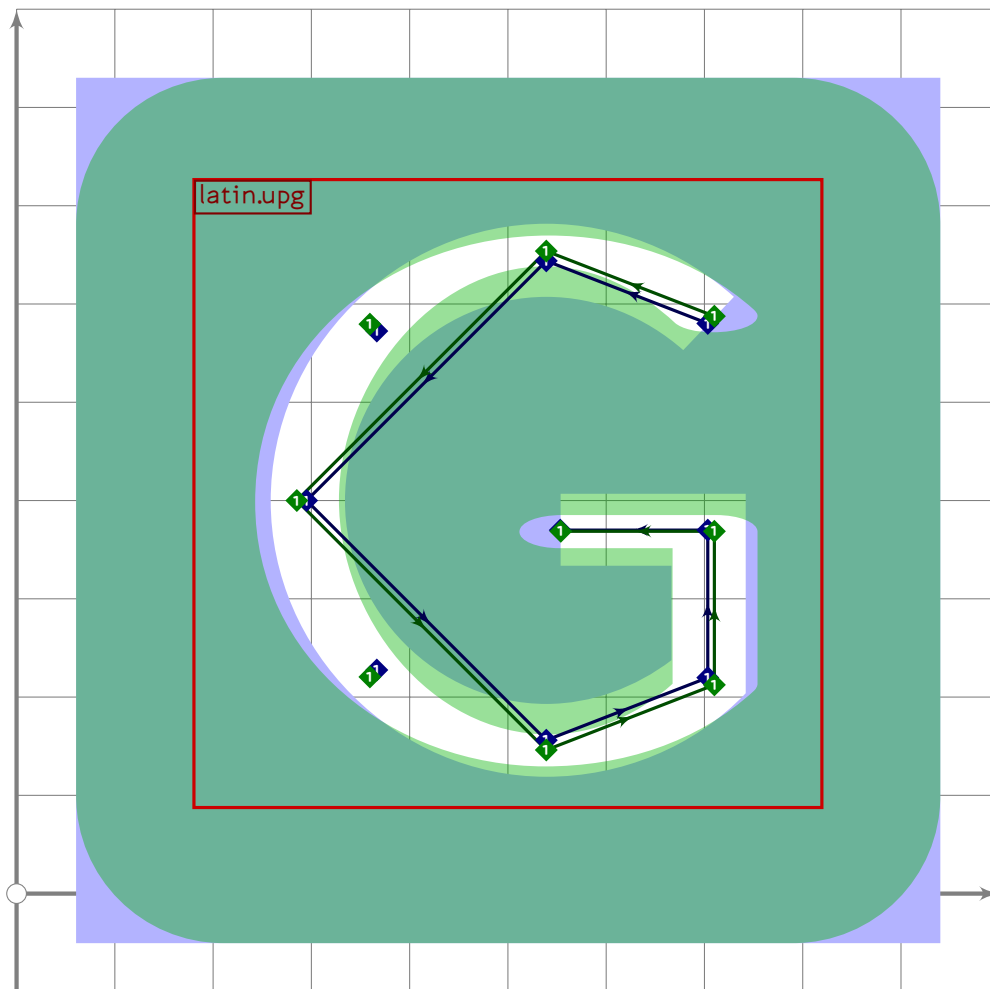
```

459 % F
460 % BACKGROUND F1712
461 begint Suglyph('u1F175';117);
462   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upf);
463   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
464   tsu_render;
465 endtsuglyph;
466

```

U+1F176
tsuku.𐀗1F176

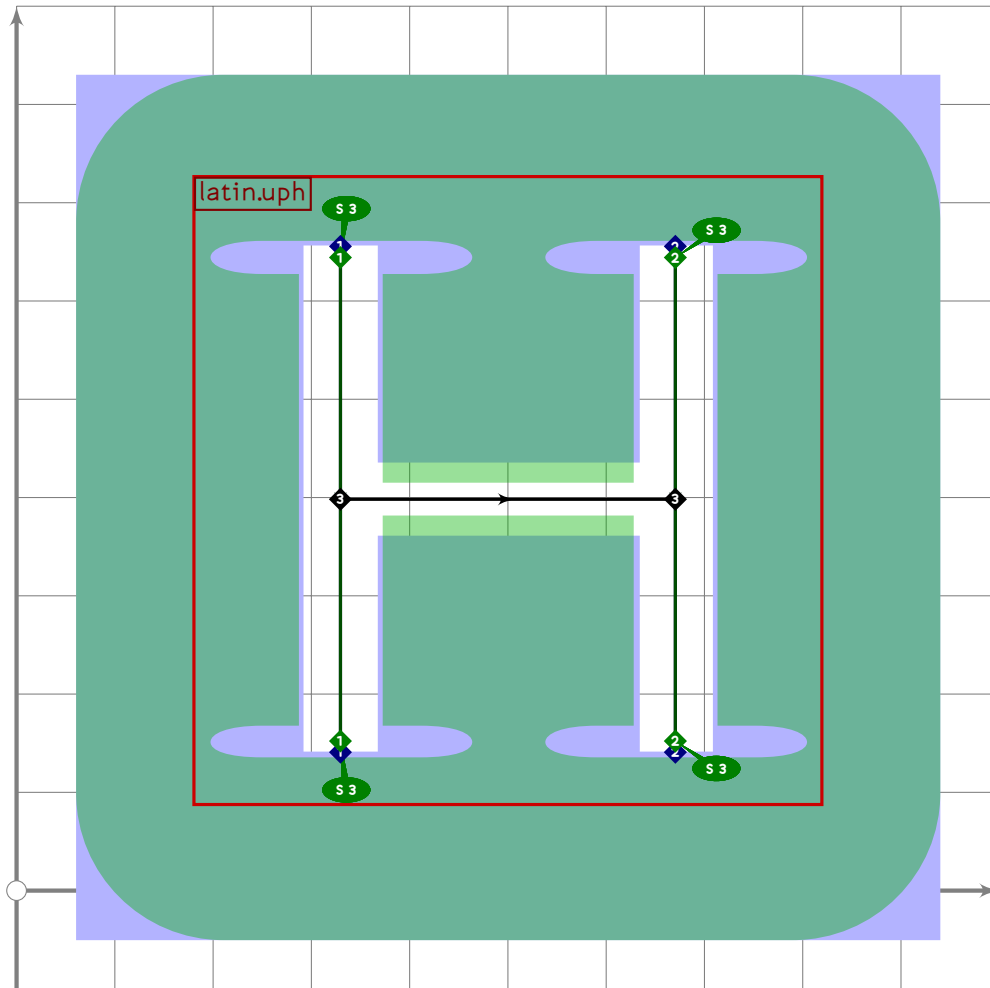
1F1



```

467 % G
468 % BACKGROUND F1712
469 begint Suglyph('𐀗1F176';118);
470   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upg);
471   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
472   tsu_render;
473 endtsuglyph;
474

```



1F1

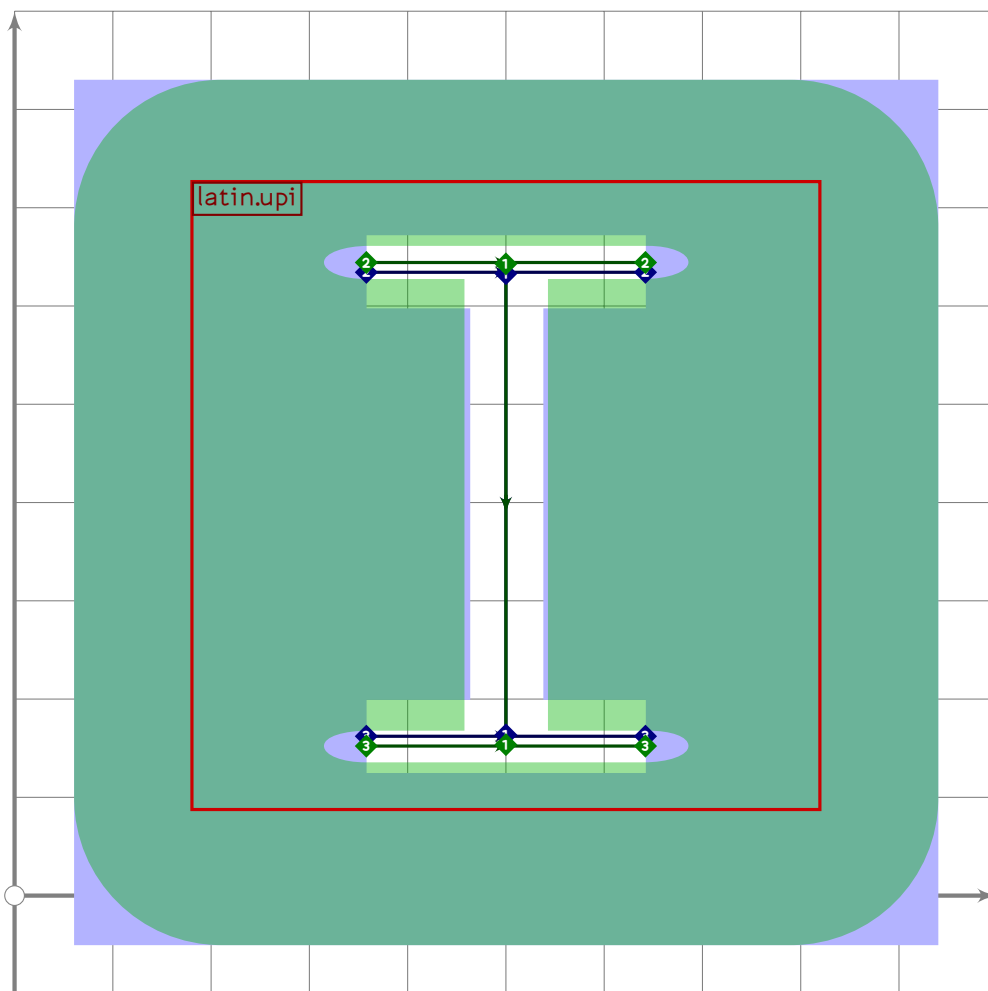
```

475 % H
476 % BACKGROUND F1712
477 begintuglyph('u1F177',119);
478   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.uph);
479   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
480   tsu_render;
481 endtuglyph;
482

```

U+1F178
tsuku.u1F178

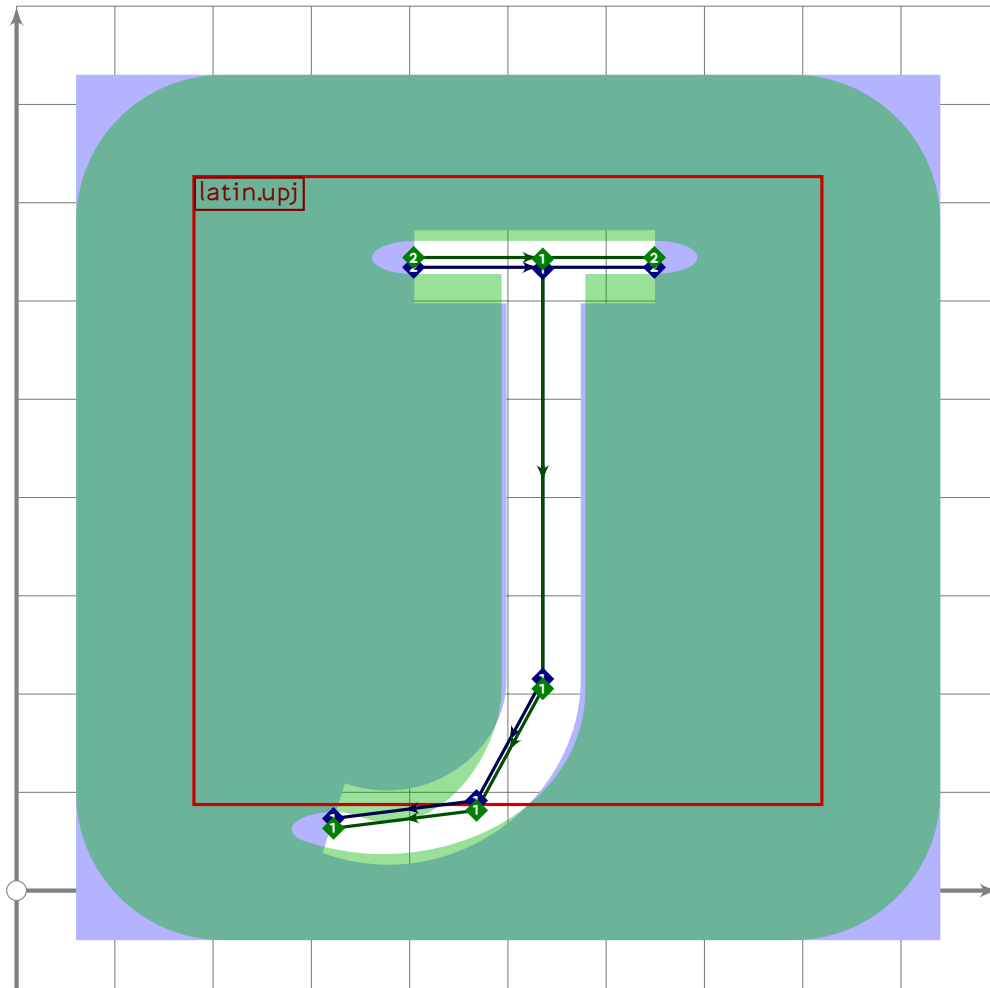
1F1



```

483 % I
484 % BACKGROUND F1712
485 begint Suglyph("u1F178",120);
486   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upi);
487   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
488   tsu_render;
489 endtsuglyph;
490

```



1F1

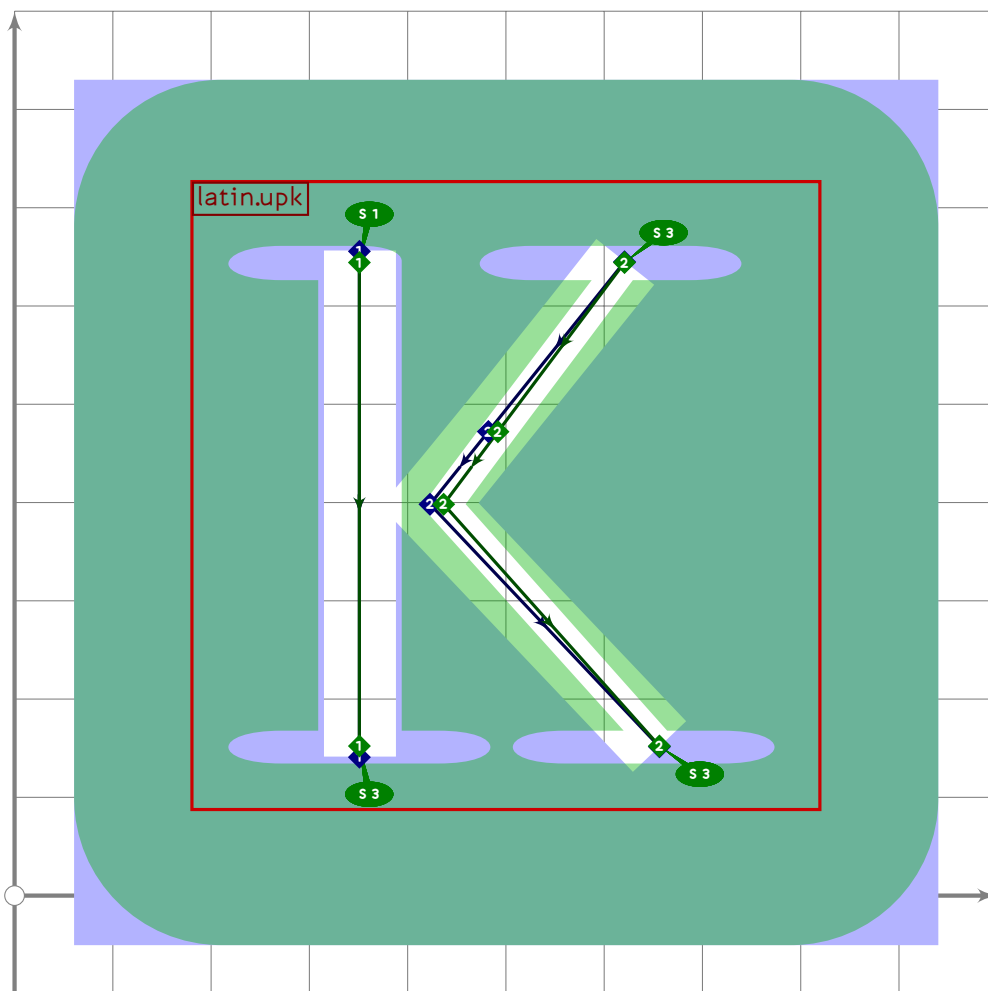
```

491 % J
492 % BACKGROUND F1712
493 begintsuglyph('u1F179';121);
494   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upj);
495   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
496   tsu_render;
497 endtsuglyph;
498

```

U+1F17A
tsuku.𐌆1F17A

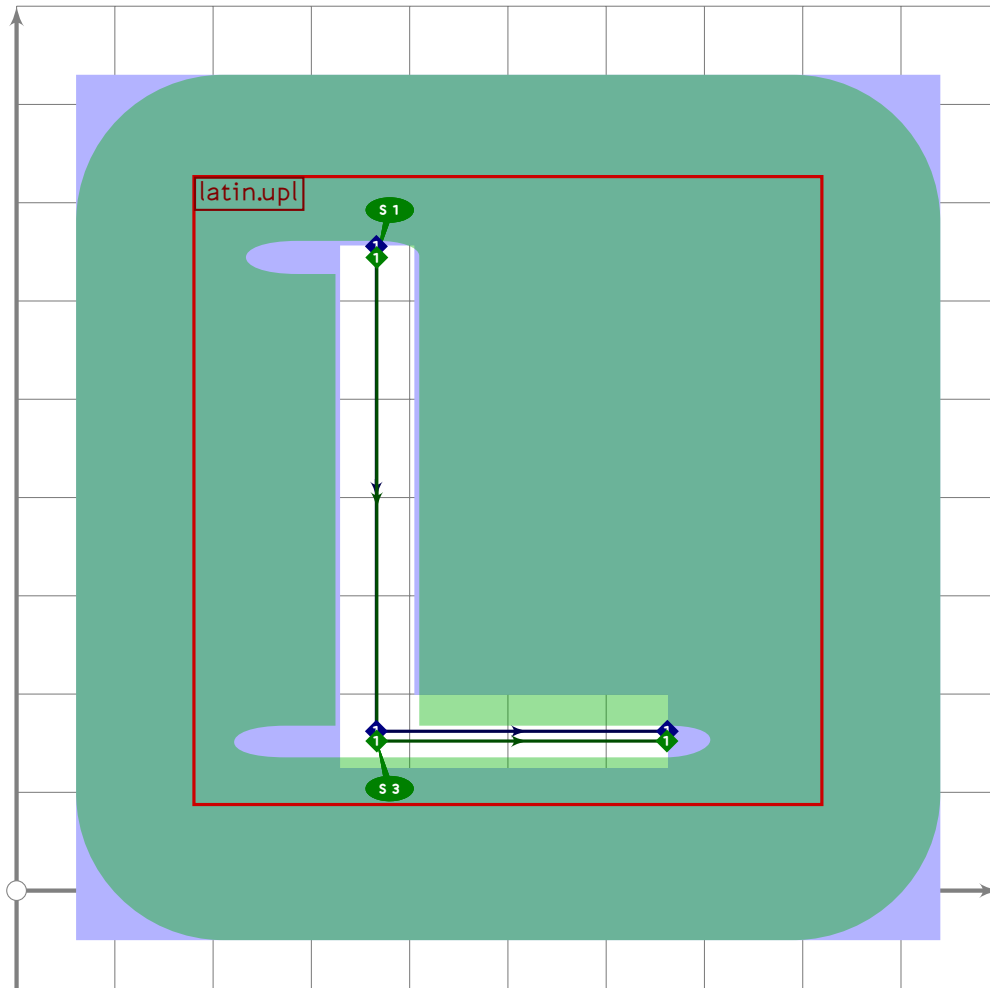
1F1



```

499 % K
500 % BACKGROUND F1712
501 begint Suglyph('𐌆1F17A';122);
502   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upk);
503   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
504   tsu_render;
505 endtsuglyph;
506

```



1F1

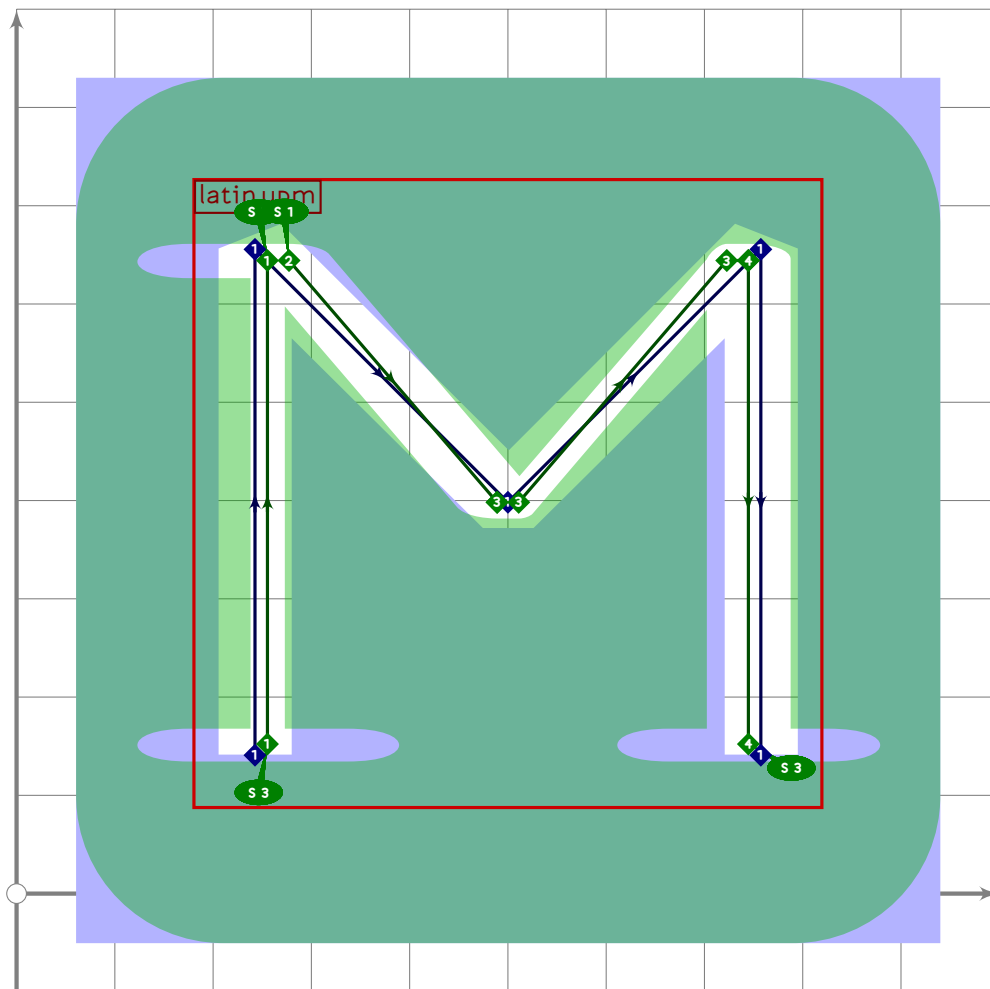
```

507 % L
508 % BACKGROUND F1712
509 begintsuglyph('u1F17B';123);
510   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upl);
511   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
512   tsu_render;
513 endtsuglyph;
514

```


U+1F17C
tsuku.𐌺1F17C

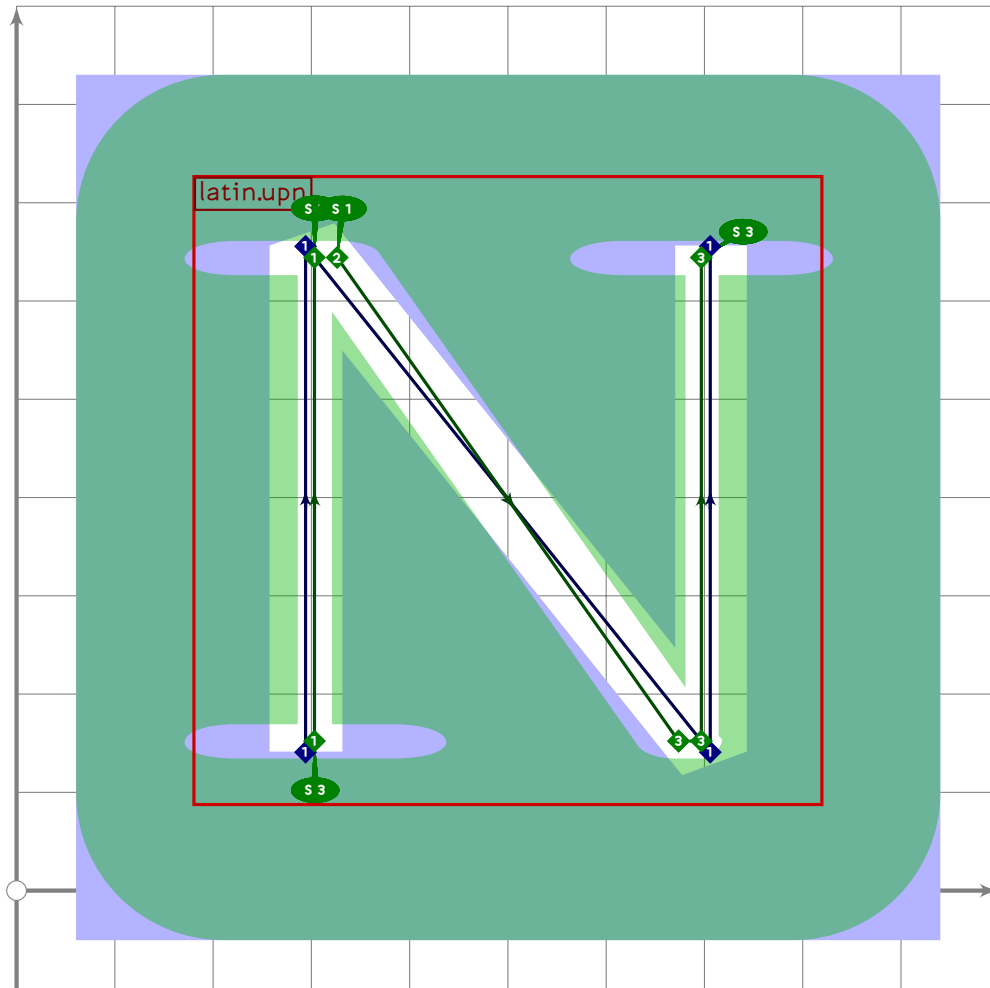
1F1



```

515 % M
516 % BACKGROUND F1712
517 begint Suglyph('𐌺1F17C',124);
518 if do_alteration:
519     tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift
520         shifted -centre_pt xscaled 0.95 shifted centre_pt)(latin.upm);
521 else:
522     tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upm);
523 fi;
524 i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
525 tsu_render;
526 endtsuglyph;
527

```



1F1

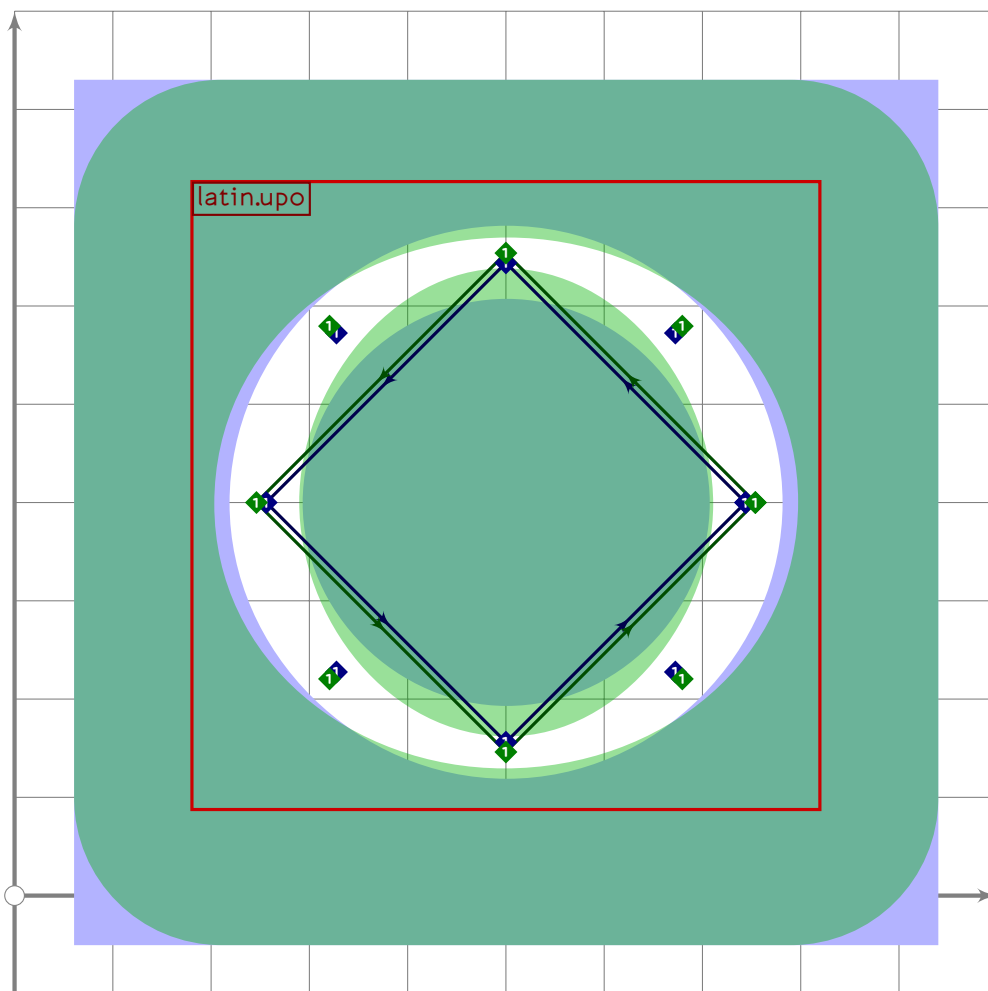
```

528 % N
529 % BACKGROUND F1712
530 begint Suglyph('u1F17D',125);
531   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upn);
532   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
533   tsu_render;
534 endtsuglyph;
535

```

U+1F17E
tsuku.𐄞

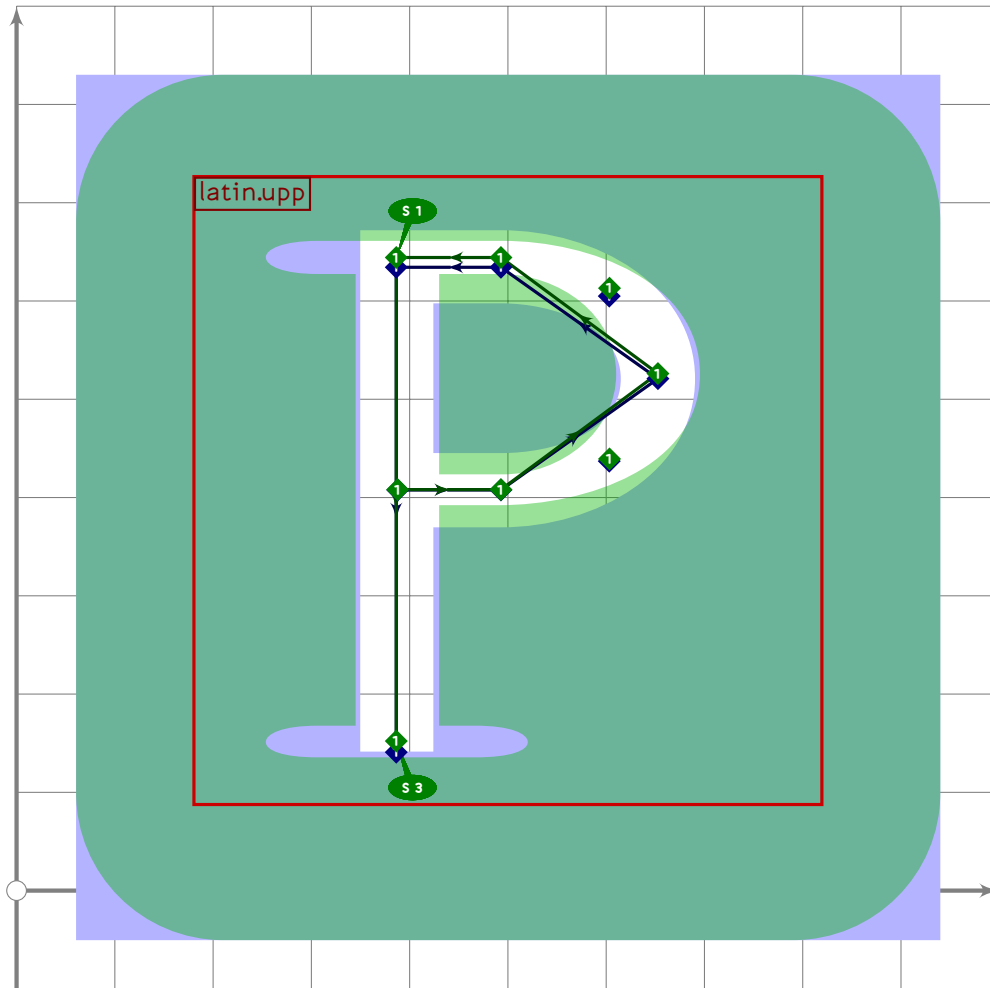
1F1



```

536 % O
537 % BACKGROUND F1712
538 begint Suglyph('𐄞';126);
539   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upo);
540   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
541   tsu_render;
542 endtsuglyph;
543

```



1F1

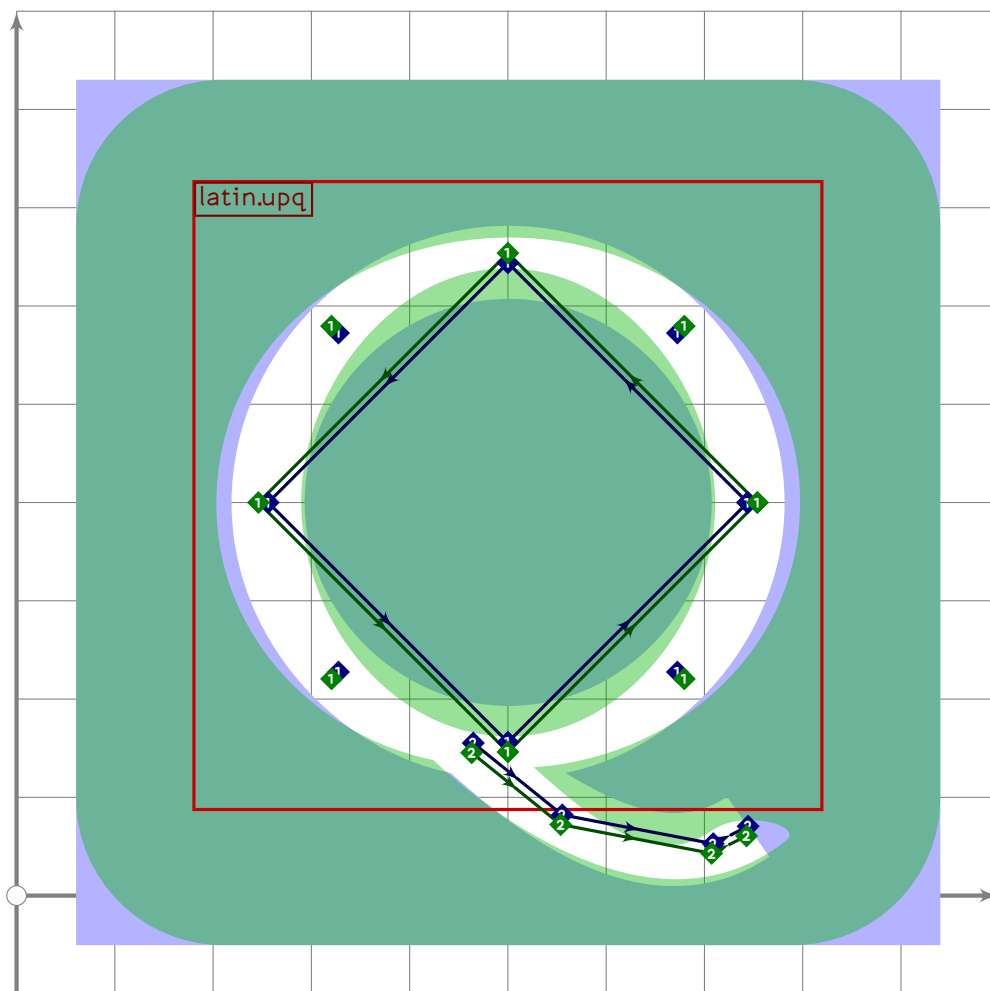
```

544 % P
545 % BACKGROUND F1712
546 begint Suglyph('u1F17F',127);
547   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upp);
548   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
549   tsu_render;
550 endtsuglyph;
551

```

U+1F180
tsuku.𐀠F180

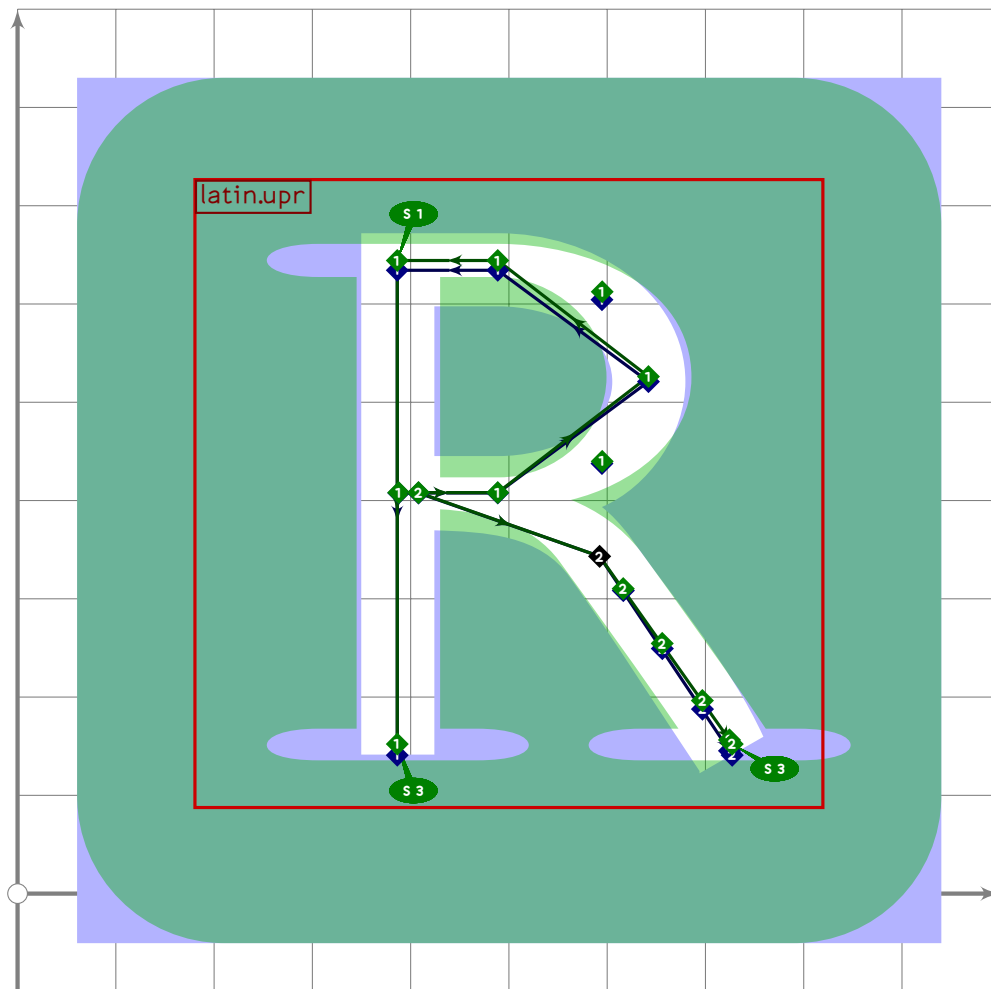
1F1



```

552 % Q
553 % BACKGROUND F1712
554 begint Suglyph('𐀠F180',128);
555   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upq);
556   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
557   tsu_render;
558 endtsuglyph;
559

```



1F1

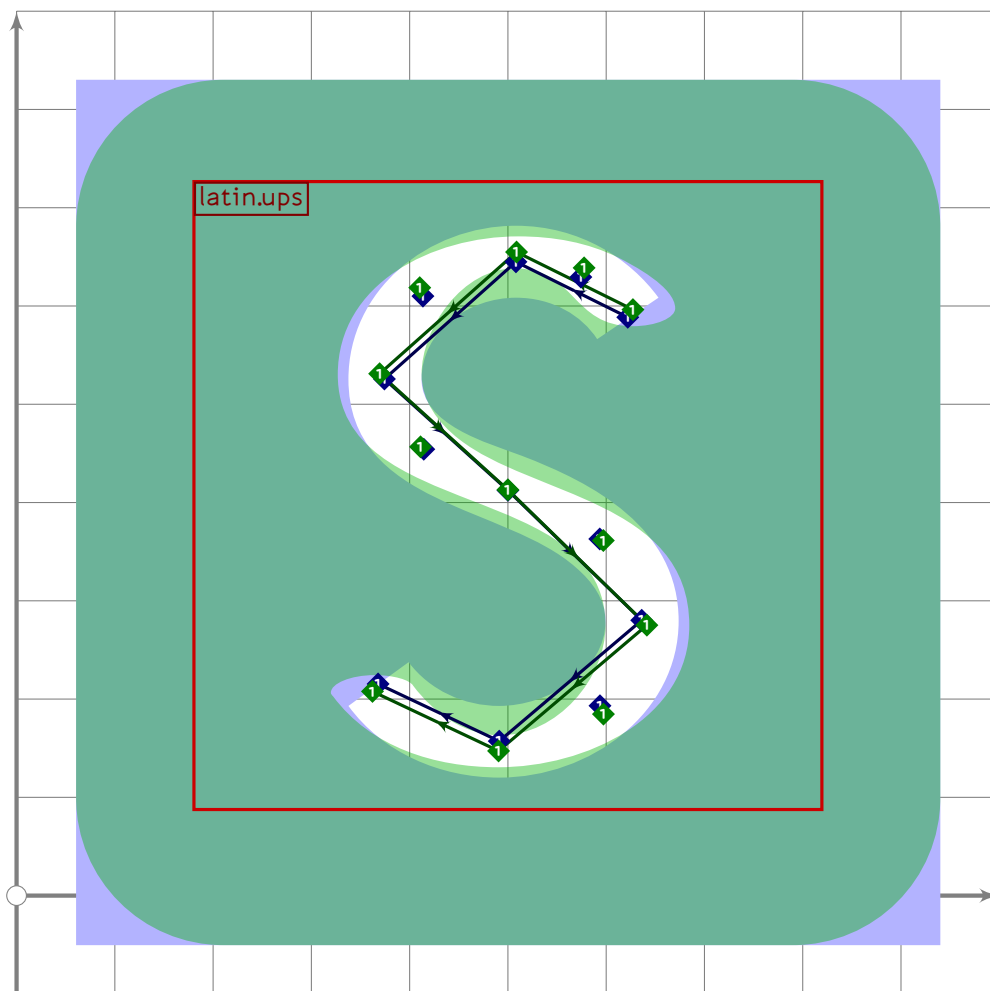
```

560 % R
561 % BACKGROUND F1712
562 begint Suglyph('u1F181';29);
563   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upr);
564   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
565   tsu_render;
566 endtsuglyph;
567

```

U+1F182
tsuku.𐄢

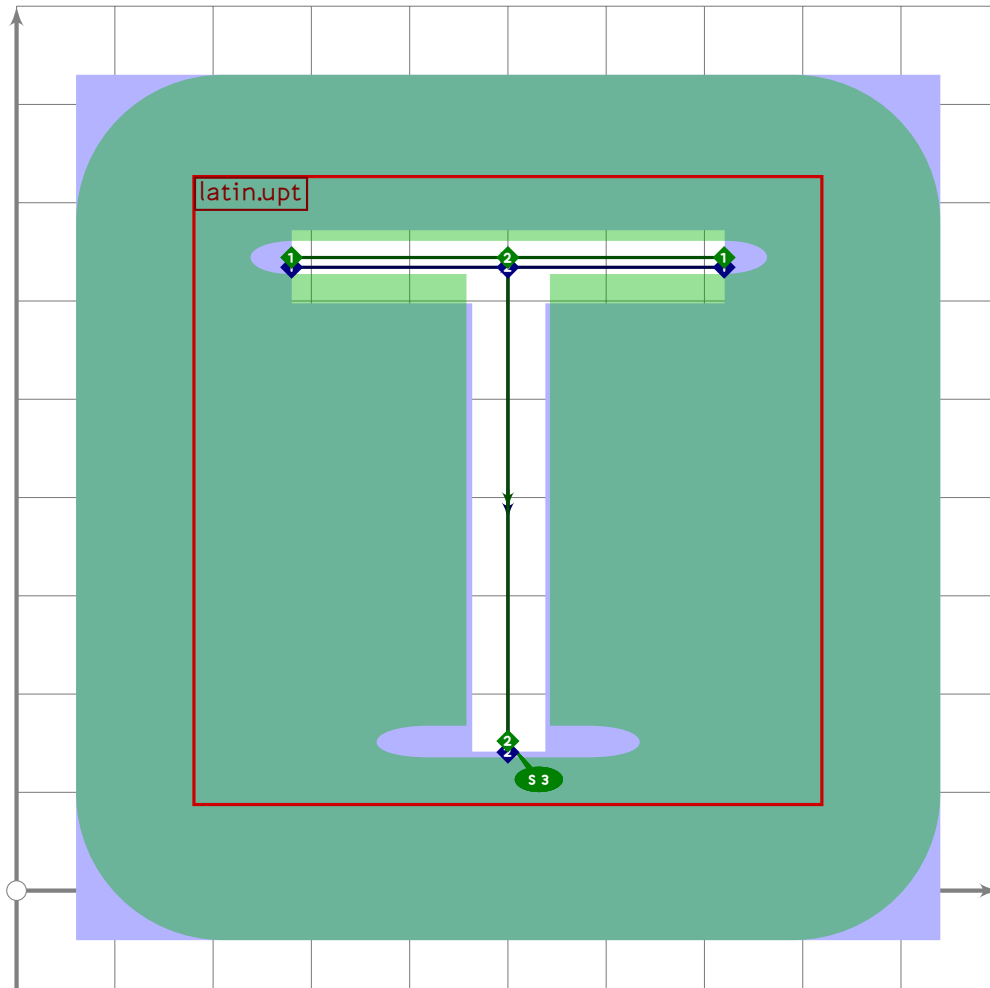
1F1



```

568 % S
569 % BACKGROUND F1712
570 begint Suglyph('𐄢',130);
571   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.ups);
572   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
573   tsu_render;
574 endtsuglyph;
575

```



1F1

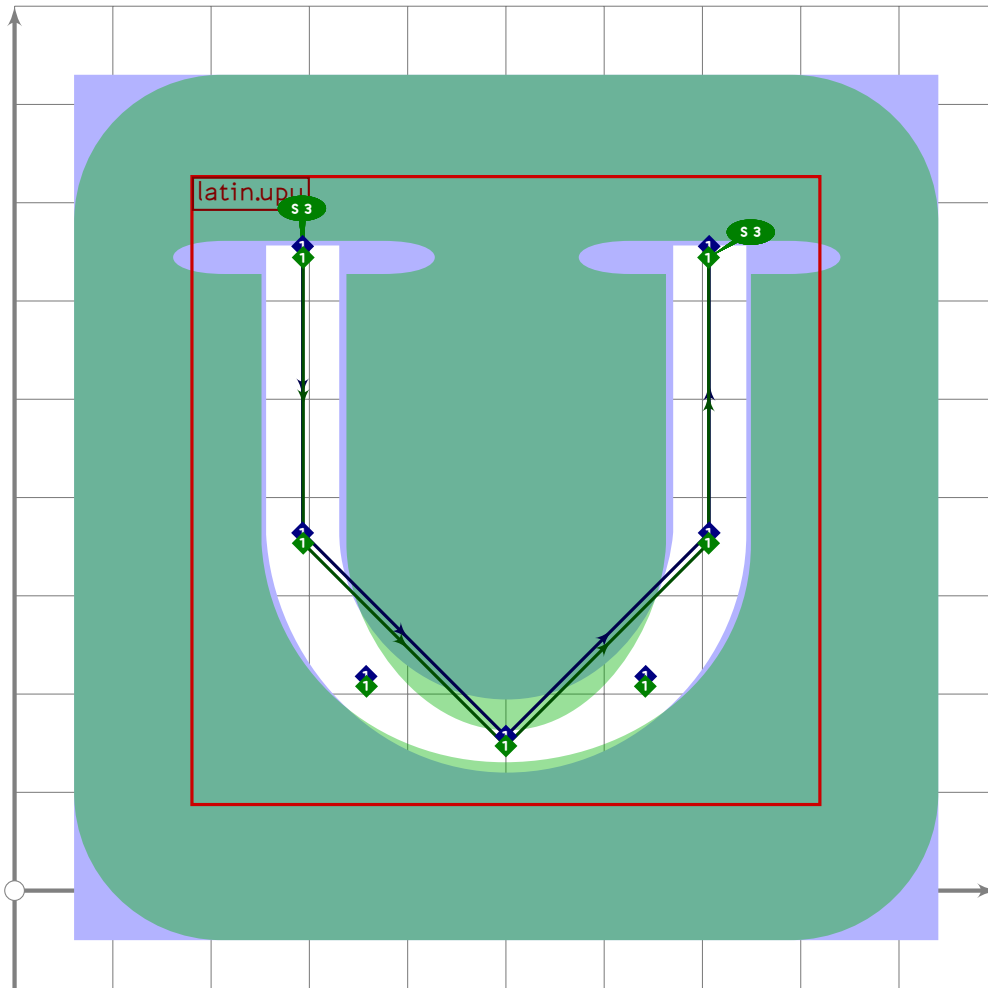
```

576 % T
577 % BACKGROUND F1712
578 begintsuglyph('u1F183',131);
579   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upt);
580   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
581   tsu_render;
582 endtsuglyph;
583

```


U+1F184
tsuku.ɯ1F184

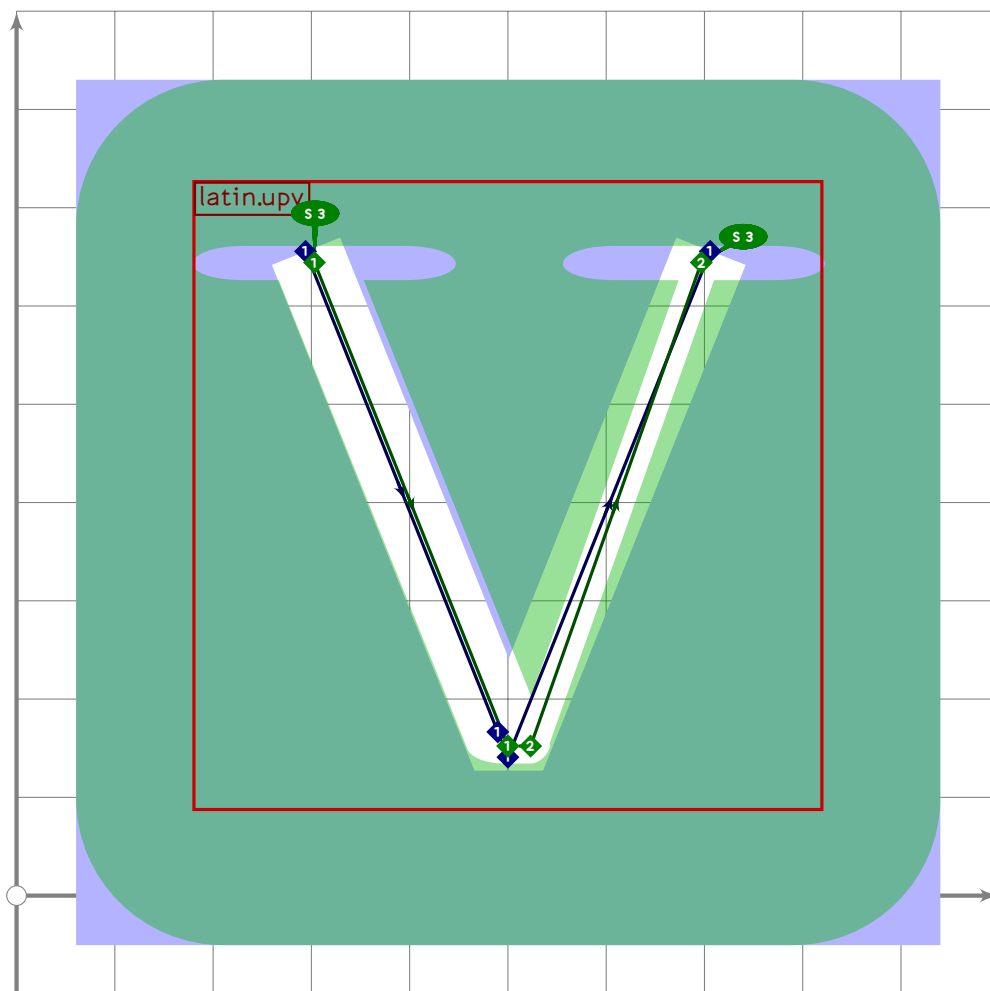
1F1



```

584 % U
585 % BACKGROUND F1712
586 begint Suglyph('u1F184';132);
587   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upu);
588   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
589   tsu_render;
590 endtsuglyph;
591

```



1F1

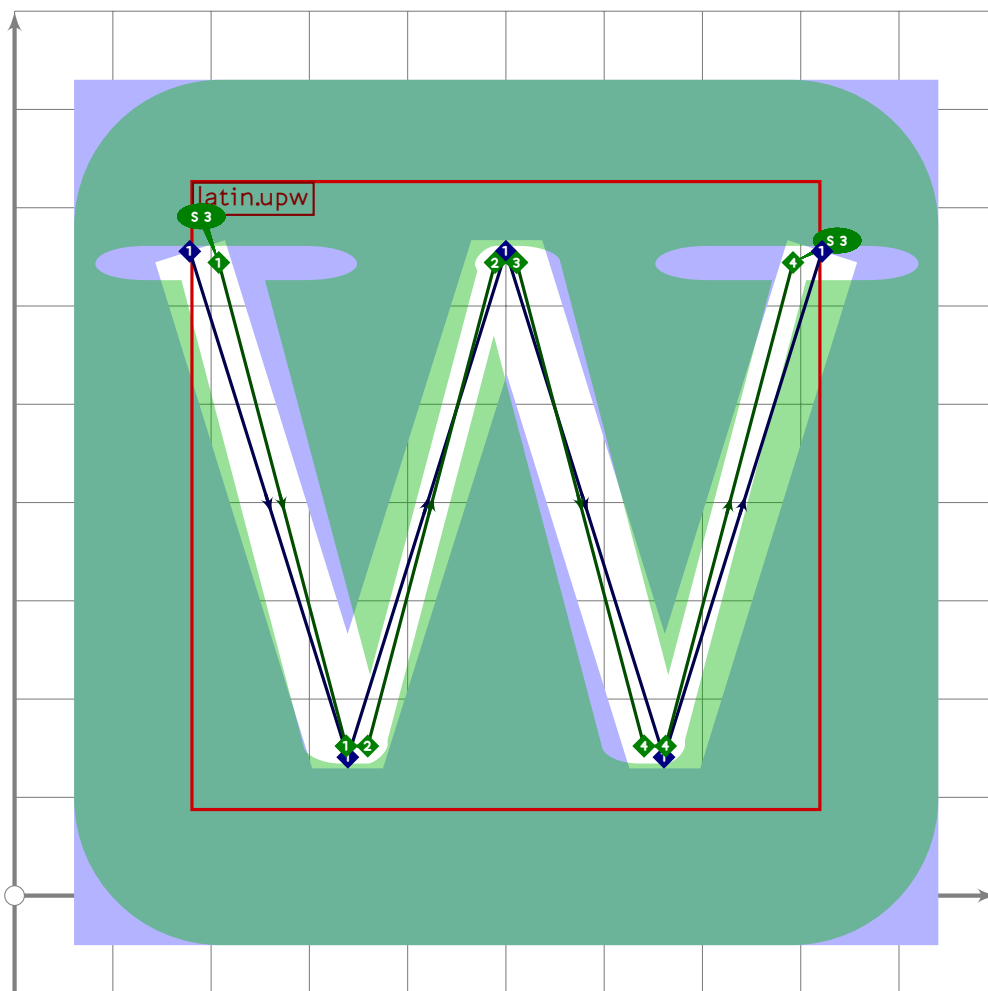
```

592 % V
593 % BACKGROUND F1712
594 begint Suglyph('u1F185',133);
595   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upv);
596   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
597   tsu_render;
598 endtsuglyph;
599

```

U+1F186
tsuku.u1F186

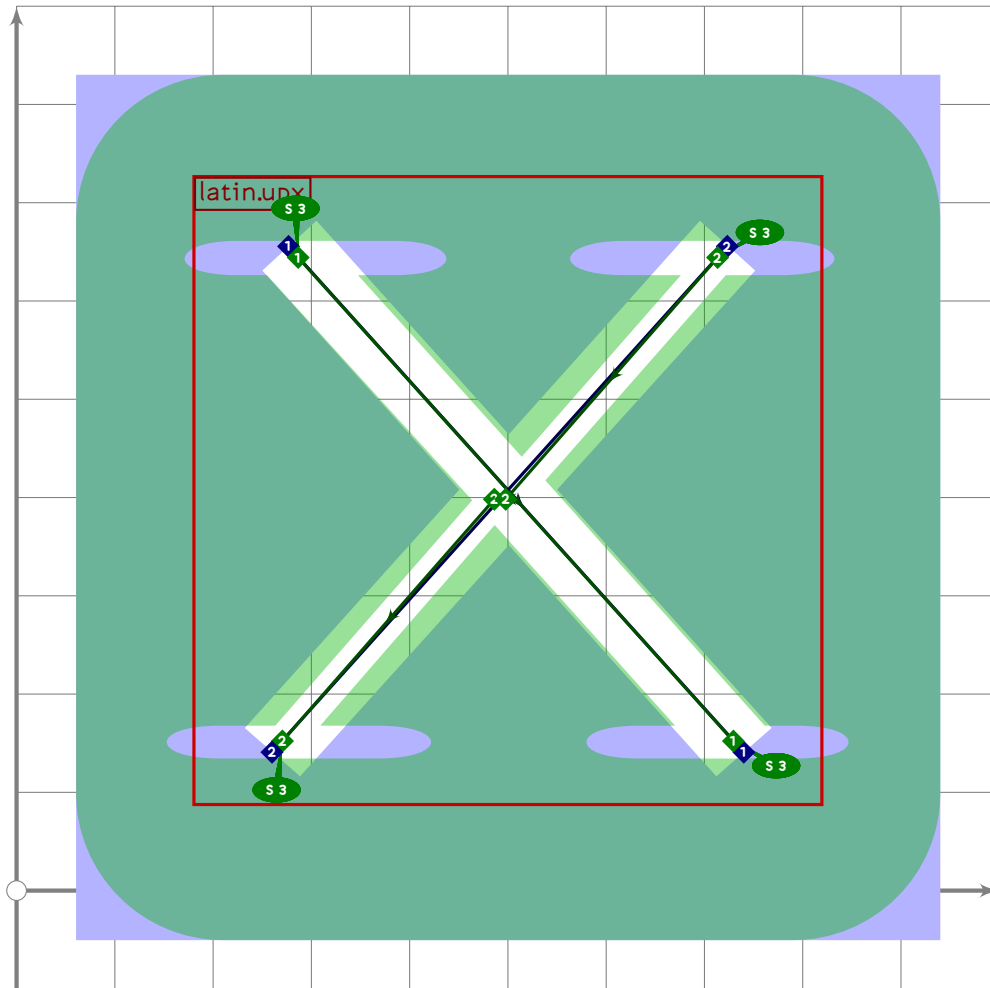
1F1



```

600 % W
601 % BACKGROUND F1712
602 begint Suglyph("u1F186",134);
603 if do_alteration:
604     tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift
605         shifted -centre_pt xscaled 0.95 shifted centre_pt)(latin.upw);
606 else:
607     tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upw);
608 fi;
609 i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
610 tsu_render;
611 endtsuglyph;
612

```



1F1

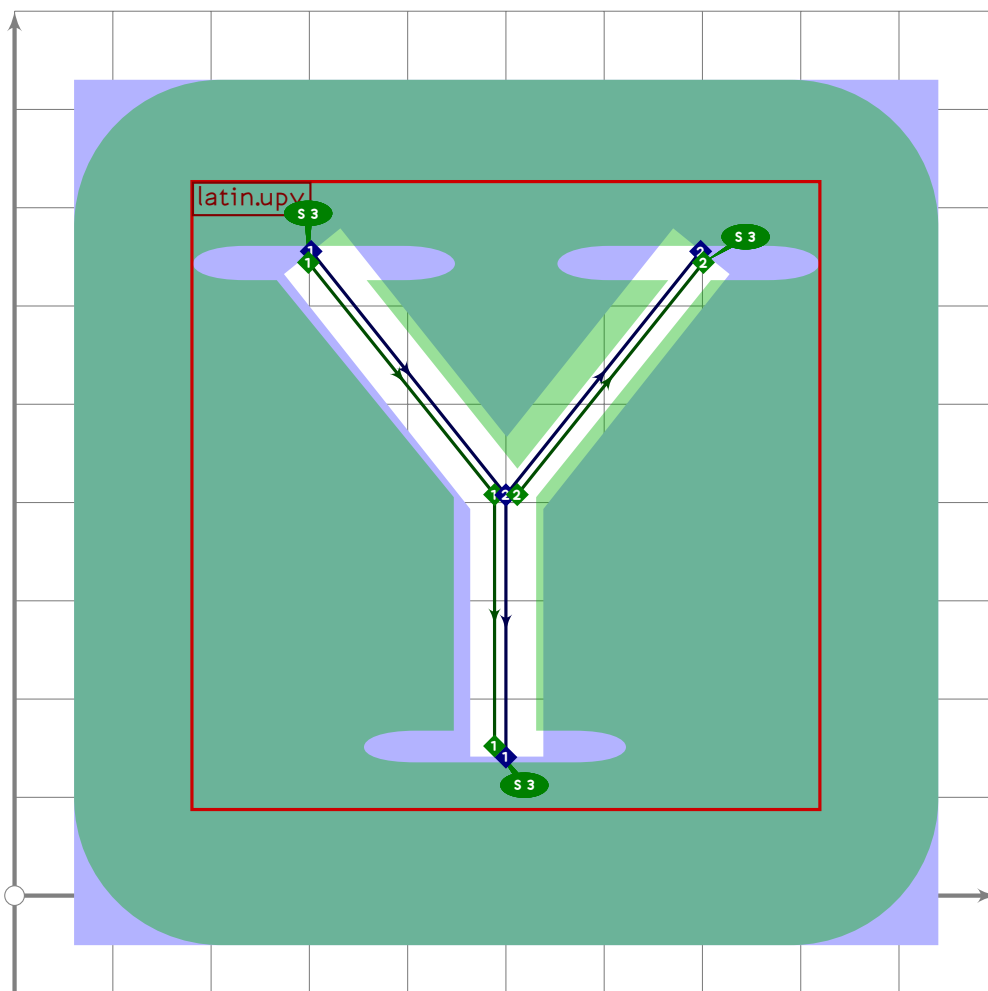
```

613 % X
614 % BACKGROUND F1712
615 begint Suglyph('u1F187',135);
616   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upx);
617   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i+1; endfor;
618   tsu_render;
619 endtsuglyph;
620

```

U+1F188
tsuku.u1F188

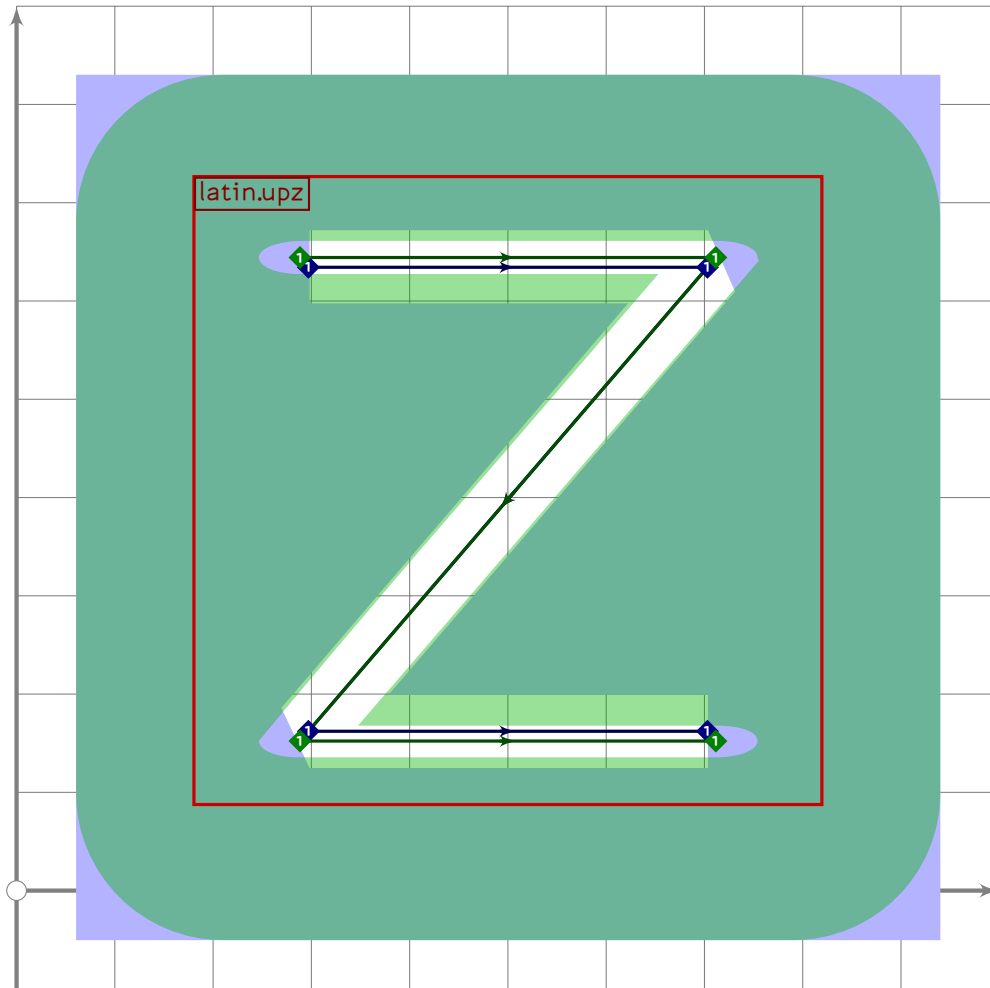
1F1



```

621 % Y
622 % BACKGROUND F1712
623 begintsuglyph('u1F188',136);
624   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upy);
625   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
626   tsu_render;
627 endtsuglyph;
628

```



1F1

```

629 % Z
630 % BACKGROUND F1712
631 begintsuglyph('u1F189',137);
632   tsu_xform(tsu_xf.sletter shifted tsu_xf.circ_slant_shift)(latin.upz);
633   i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,107); i:=i-1; endfor;
634   tsu_render;
635 endtsuglyph;
636
637
638
639 endfont;
640
641

```

tsuku-200.mp

```
1 %
2 % Unicode page 200 (Kanji) for Tsukurimashou
3 % Copyright (C) 2012, 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 % AUTODEPS
36 input buildkanji.mp;
37 input radical.mp;
38 input rare.mp;
39
40 do_late_includes;
41
42 

---


43
44 % "branch"
45 begintsuglyph("u200A2",162); [see page 995]
46   kanji.rare.branch;
47   tsu_render;
48 endtsuglyph;
49
50 % dui "mound"
51 begintsuglyph("u200A4",164); [see page 1028]
52   kanji.rare.mound;
53   tsu_render;
54 endtsuglyph;
55
56 

---


57
58 endfont;
59
60 

---


```

tsuku-20a.mp

```
1 %
2 % Unicode page 20A (Kanji) for Tsukurimashou
3 % Copyright (C) 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 % AUTODEPS
36 input buildkanji.mp;
37 input gradeone.mp;
38 input gradetwo.mp;
39 input leftrad.mp;
40 input rare.mp;
41
42 do_late_includes;
43
44 

---


45
46 % neede for grfour.history
47 begintsuglyph("u20A75";117);
48   kanji.rare.history_inside;
49   tsu_render;
50 endtsuglyph;
51
52 

---


53
54 endfont;
55
56 

---


```

[see page 1019]

20A

tsuku-21c.mp

```
1 %
2 % Unicode page 21C (Kanji) for Tsukurimashou
3 % Copyright (C) 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 % AUTODEPS
36 input buildkanji.mp;
37 input gradeeight.mp;
38 input radical.mp;
39 input rare.mp;
40
41 do_late_includes;
42
43 

---


44
45 % "ancient form of 'pig' radical" needed for grfour.print
46 begintsuglyph("u21C2F";47); [see page 986]
47   kanji.rare.ancient_pig;
48   tsu_render;
49 endtsuglyph;
50
51 

---


52
53 endfont;
54
55 

---


```

tsuku-295.mp

```
1 %
2 % Unicode page 295 (Kanji) for Tsukurimashou
3 % Copyright (C) 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 % AUTODEPS
36 input buildkanji.mp;
37 input gradefour.mp;
38 input gradenine.mp;
39 input gradeone.mp;
40 input leftrad.mp;
41 input radical.mp;
42 input toprad.mp;
43
44 do_late_includes;
45
46 

---


47
48 % specifically Japanese/Vietnamese form of U+985E for languages in which
49 % the standard form looks like U+F9D0
50 begintsuglyph("u29516";22); [see page 701]
51   kanji.grfour.genus;
52   tsu_render;
53 endtsuglyph;
54
55 

---


56
57 endfont;
58
59 

---


```

tsuku-f17.mp

```
1 %
2 % Unicode page F17 (Tsukurimashou-specific extensions) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input accent.mp;
39 input buildkanji.mp;
40 input enclosed.mp;
41 input genjimon.mp;
42 input gradeone.mp;
43 input iching.mp;
44 input katakana.mp;
45 input latin.mp;
46 input leftrad.mp;
47
48 do_late_includes;
49
50 

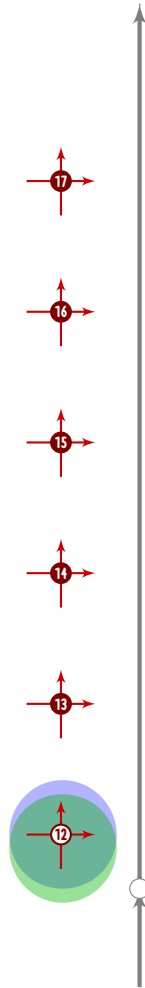
---


51
```

Combining Dots For I Ching

F17

```
52 % COMBINING DOTS FOR I CHING
53
54 % WARNING changing rescale setting
55 tsu_rescale_native_zero;
56
57 vardef make_iching_anchors(expr lnum,lmax) =
58   for i:=1 upto lmax:
59     push_anchor(if i=lnum: -1 else: 1 fi*anc_iching_line(i),
60       identity shifted (((l,i) transformed iching_xform)
61         +(1000-iching.size)*0.25*right+1000*left));
62   endfor;
63 enddef;
```

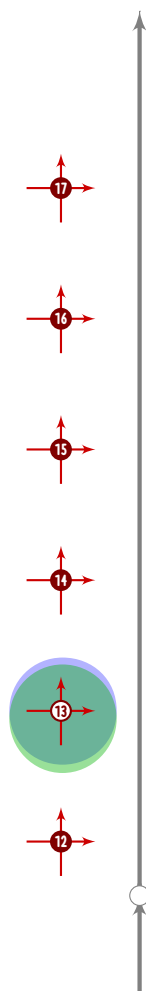


```

64
65 begint Suglyph("ichingdot1.6";1);
66   Fill iching.dot(1,6) shifted (-1000,0);
67   make_iching_anchors(1,6);
68   tsu_render;
69 endtsuglyph;

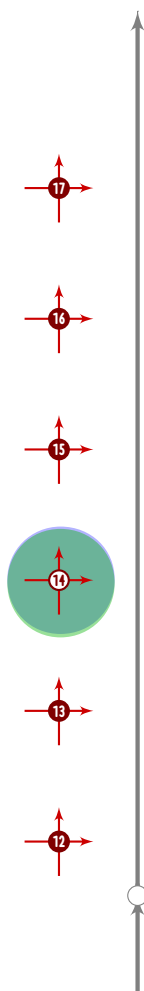
```

U+F1702
tsuku.ichingdot2.6



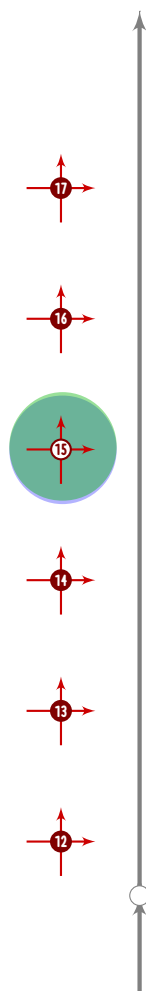
```
70
71 begint Suglyph("ichingdot2.6",2);
72   Fill iching.dot(2,6) shifted (-1000,0);
73   make_iching_anchors(2,6);
74   tsu_render;
75 endtsuglyph;
```

F17



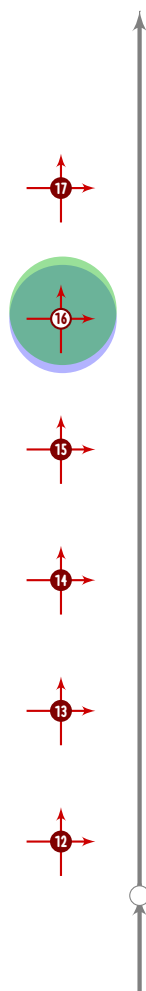
```
76
77 begint Suglyph("ichingdot3.6";3);
78   Fill iching.dot(3,6) shifted (-1000,0);
79   make_iching_anchors(3,6);
80   tsu_render;
81 endtsuglyph;
```

U+F1704
tsuku.ichingdot4.6



```
82
83 begint Suglyph("ichingdot4.6",4);
84   Fill iching.dot(4,6) shifted (-1000,0);
85   make_iching_anchors(4,6);
86   tsu_render;
87 endtsuglyph;
```

F17

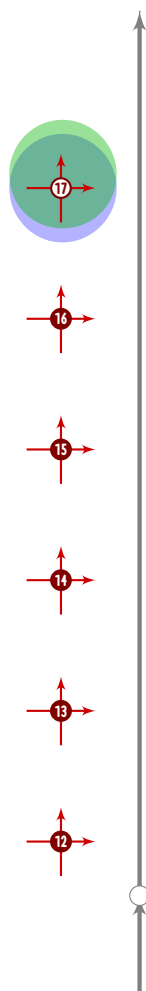


```

88
89 begint Suglyph("ichingdot5.6",5);
90   Fill iching.dot(5,6) shifted (-1000,0);
91   make_iching_anchors(5,6);
92   tsu_render;
93 endtsuglyph;

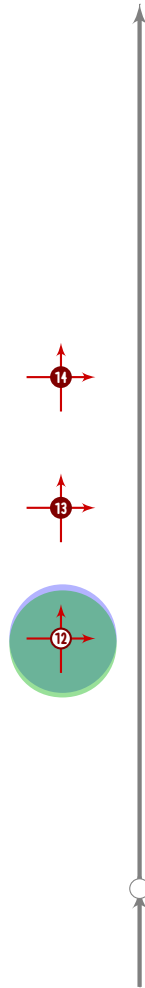
```


U+F1706
tsuku.ichingdot6.6



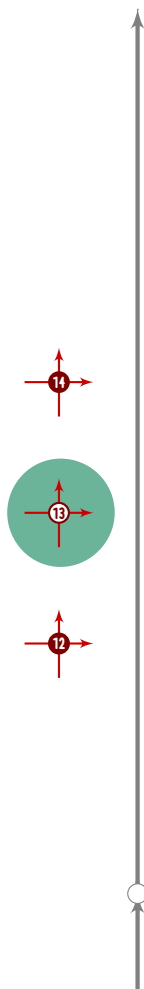
```
94  
95 begint Suglyph("ichingdot6.6",6);  
96   Fill iching.dot(6,6) shifted (-1000,0);  
97   make_iching_anchors(6,6);  
98   tsu_render;  
99 endtsuglyph;
```

F17

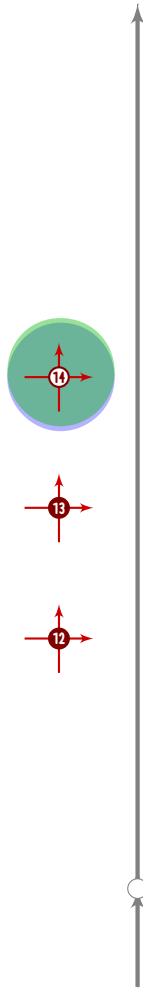


```
100
101 begint Suglyph("ichingdot1.3";7);
102   Fill iching.dot(1,3) shifted (-1000,0);
103   make_iching_anchors(1,3);
104   tsu_render;
105 endtsuglyph;
```

U+F1708
tsuku.ichingdot2.3



```
106
107 begint Suglyph("ichingdot2.3",8);
108   Fill iching.dot(2,3) shifted (-1000,0);
109   make_iching_anchors(2,3);
110   tsu_render;
111 endtsuglyph;
```



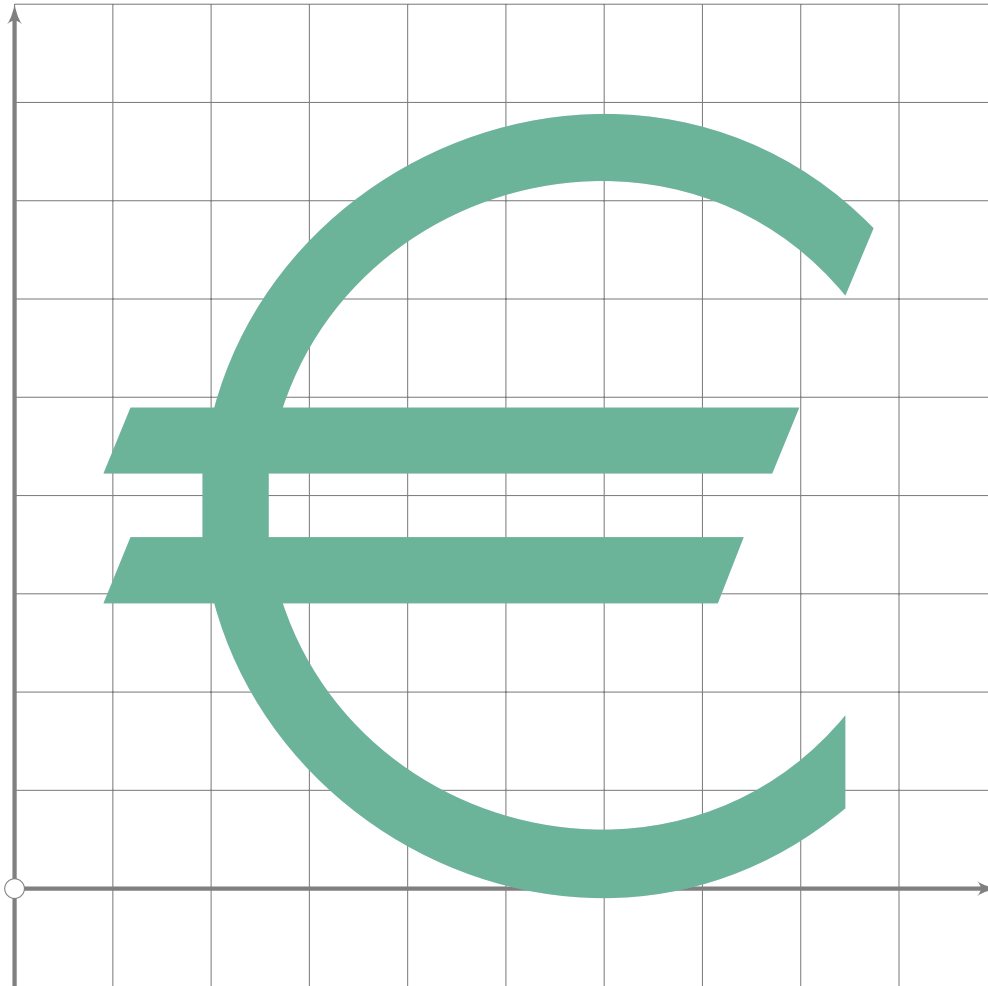
```
112
113 begintsuglyph("ichingdot3.3",9);
114   Fill iching.dot(3,3) shifted (-1000,0);
115   make_iching_anchors(3,3);
116   tsu_render;
117 endtsuglyph;
118
119 % WARNING changing rescale setting
120 tsu_rescale_full;
121
122
123
```

F17

Miscellaneous

```
124 % MISCELLANEOUS
125
126 begingroup
127 save rescale_slant;
128 rescale_slant:=0;
```

U+F1710
tsuku.Euro.official



```

129
130 begintsuglyph("Euro.official",16);
131 z25=(fullcircle scaled 10) intersectionpoint ((0,0)-(10*dir 40));
132 z11=(0,-6);
133
134 z1=(0,6);
135 z2=(fullcircle scaled 12) intersectionpoint ((-10,1.5)-(0,1.5));
136 y3=y2;
137 z3-z4=whatever*(z25-z11);
138 z4=(-7.5,0.5);
139 z5=(fullcircle scaled 12) intersectionpoint ((-10,0.5)-(0,0.5));
140 z6=(-6,0);
141 z7=(fullcircle scaled 12) intersectionpoint ((-10,-0.5)-(0,-0.5));
142 y8=y7;
143 z8-z9=whatever*(z25-z11);
144 z9=(-7.5,-1.5);
145 z10=(fullcircle scaled 12) intersectionpoint ((-10,-1.5)-(0,-1.5));
146 z13=(fullcircle scaled 10) intersectionpoint ((0,0)-(10*dir 320));
147 z12=(fullcircle scaled 12) intersectionpoint (z13-(z13+(0,-3)));
148 z14=(0,-5);
149 z15=(fullcircle scaled 10) intersectionpoint ((-10,-1.5)-(0,-1.5));

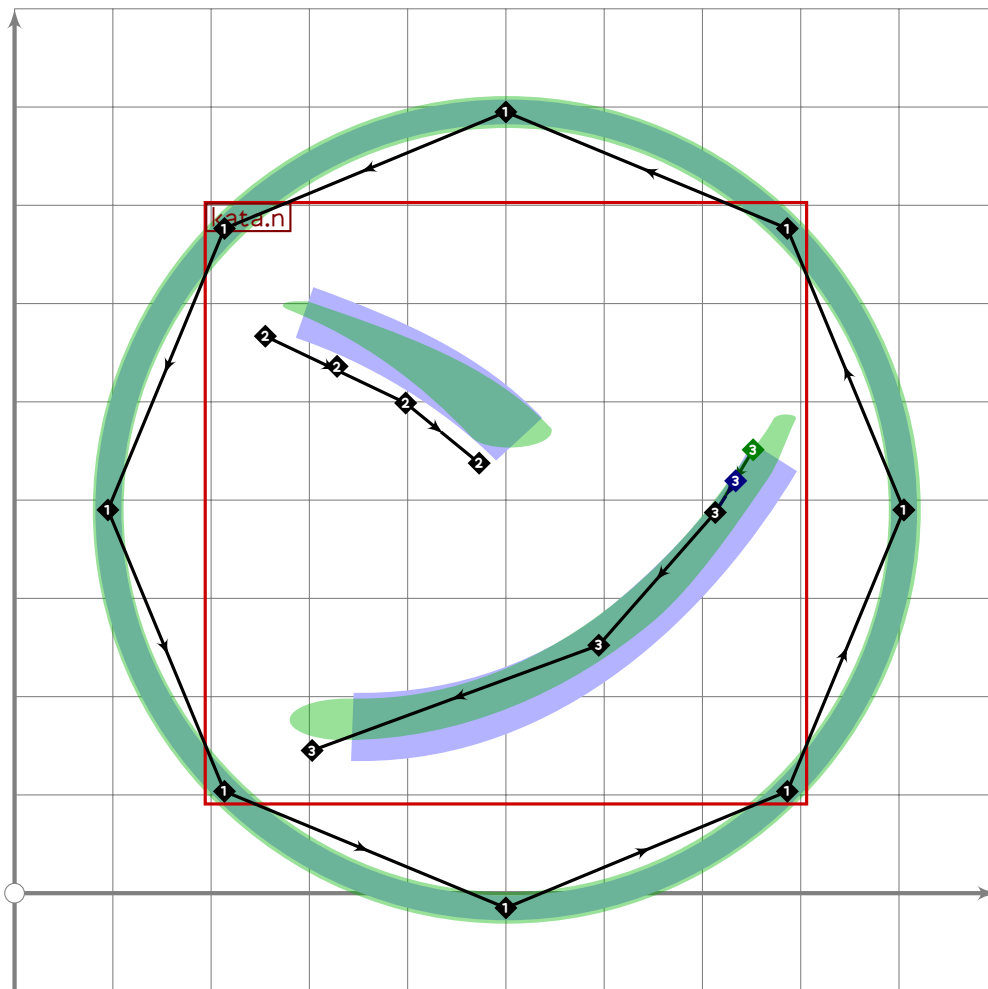
```

F17

```

150 y16=-1.5;
151 z16=whatever[z11,z25];
152 y17=-0.5;
153 z17=whatever[z11,z25];
154 z18=(fullcircle scaled 10) intersectionpoint ((-10,-0.5)-(0,-0.5));
155 z19=(-5,0);
156 z20=(fullcircle scaled 10) intersectionpoint ((-10,0.5)-(0,0.5));
157 y21=0.5;
158 z21=whatever[z11,z25];
159 y22=1.5;
160 z22=whatever[z11,z25];
161 z23=(fullcircle scaled 10) intersectionpoint ((-10,1.5)-(0,1.5));
162 z24=(0,5);
163 z26=(fullcircle scaled 12) intersectionpoint (z11-1.5[z11,z25]);
164 path euro;
165 euro:=z1..z2-z3-z4-z5..z6..z7-z8-z9-z10..z11..z12-z13..
166 z14..z15-z16-z17-z18..z19..z20-z21-z22-z23..z24..z25-z26..cycle;
167 dangerousFill euro scaled (400/6) shifted (centre_pt+90*right);
168 endtsuglyph;
169

```

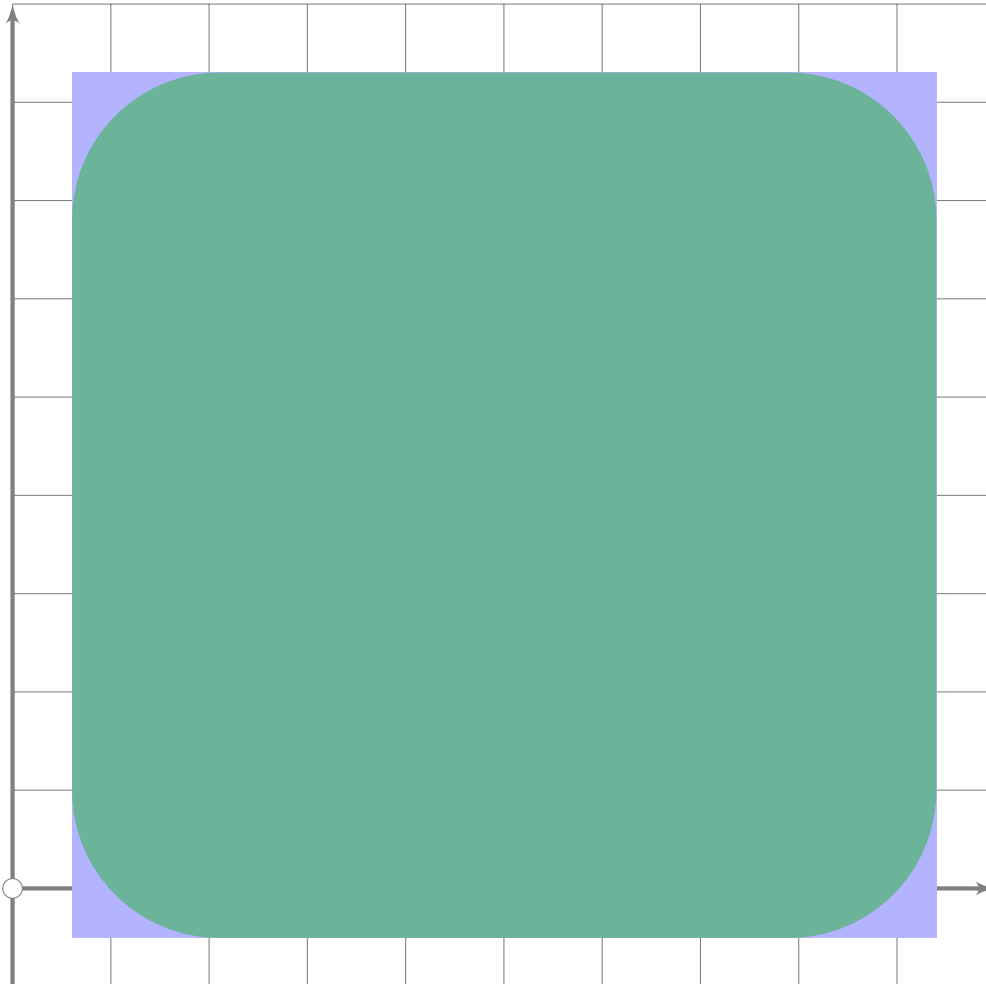


170 % circled "katakana n"

U+F1712

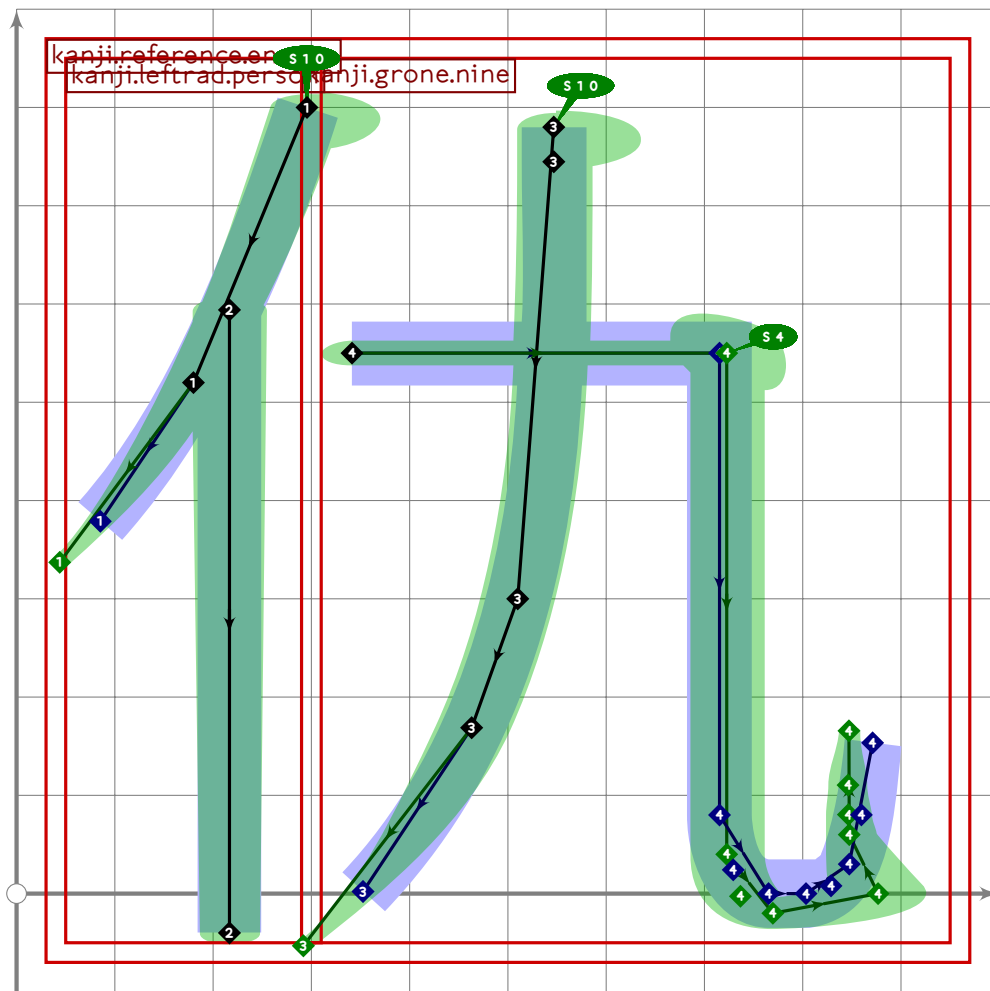
tsuku.squarebackground

```
171 begintsuglyph('uF1711';17);
172 circle.single;
173 tsu_xform(tsu_xf.circled)(kata.n);
174 tsu_render_in_circle(tsu_xf.cbound);
175 endsuglyph;
176
```



```
177 % background for use with enclosed alpha
178 begintsuglyph("squarebackground";18);
179 if sharp_corners:
180     dangerousFill (60,830)-(60,50)-(940,50)-(940,830)-cycle;
181 else:
182     path crnp;
183     crnp:=(60+1.5*tsu_punct_size,830){left}..
184         {down}(60,830-1.5*tsu_punct_size);
185     dangerousFill crnp-
186         (crnp rotatedaround (centre_pt,90))-
187         (crnp rotatedaround (centre_pt,180))-
188         (crnp rotatedaround (centre_pt,270))-cycle;
189 fi;
190 endsuglyph;
191
```

F17

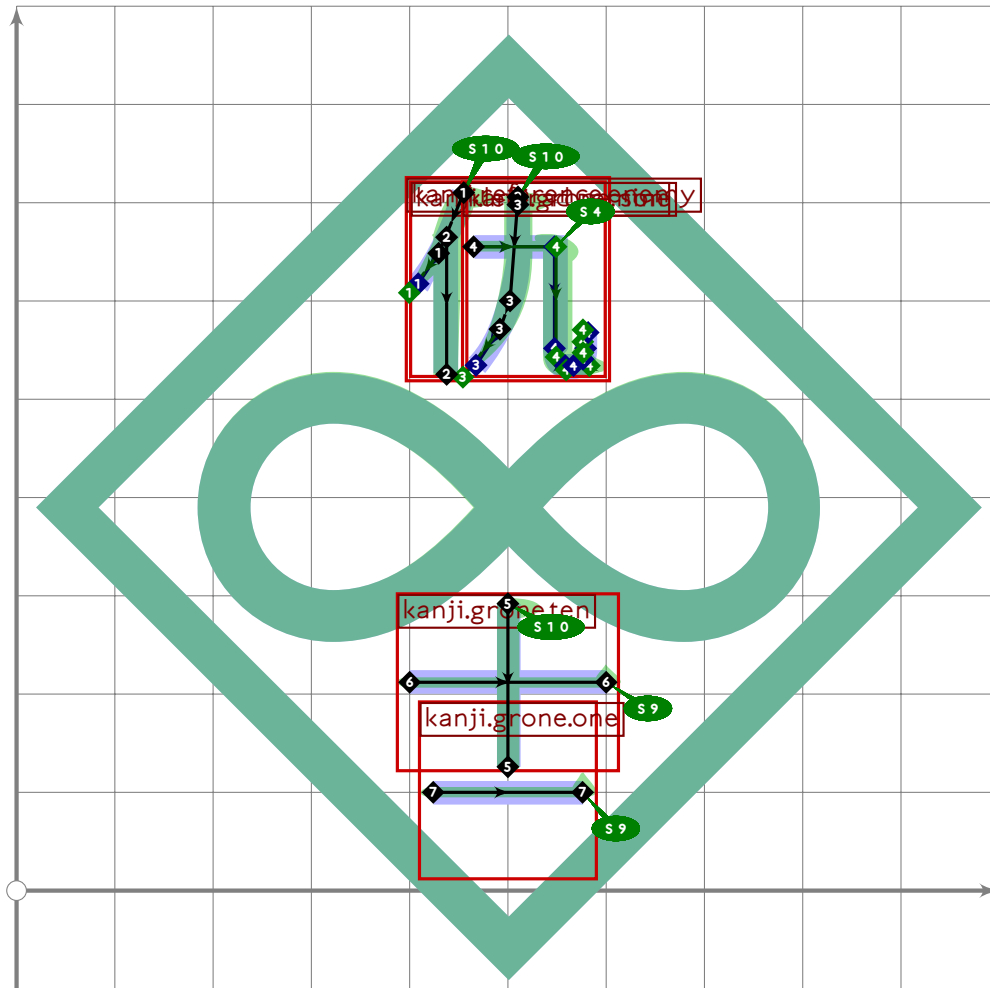


```

192 % Individual Eleven
193 vardef kanji.reference.enemy =
194   push_pbox_toexpand("kanji.reference.enemy");
195   build_kanji.lr(300,20)
196   (kanji.leftrad.person)
197   (kanji.grone.nine);
198   expand_pbox;
199 enddef;

```


U+F1713
tsuku.individueleven



```

200 beginsuglyph("individualeleven",19);
201   numeric x[],y[];
202   z3=z7=centre_pt;
203   z3-z1=z5-z3;
204   z3-z2=z4-z3;
205   z3-z8=z6-z3;
206   y1=y3;
207   y2=y6;
208   x2=x8;
209   y2-y1=x2-x1;
210   x3-x1=290;
211   x2-x1=111;
212   save default_nib;
213   path default_nib;
214   path iepa,iepb;
215   default_nib:=fix_nib(53,53,0);
216   pen_stroke()(z1{up}..z2{right}..z3..z4{right}..{up}z5)(iepa);
217   dangerousFill iepa;
218   % do this in between the halves of the infinity, to work around a bug
219   dangerousFill unitsquare shifted (-0.5,-0.5) scaled 680
220   rotated 45 shifted centre_pt;

```

```

221 dangerousFill reverse unitsquare shifted (-0.5,-0.5) scaled 590
222   rotated 45 shifted centre_pt;
223 pen_stroke()(z5{up}..z6{left}..z7..z8{left}..{up}z1)(iepb);
224 dangerousFill iepb;
225 build_kanji.sscale(scaled 0.22 shifted (0,230))
226   (kanji.reference.enemy);
227 build_kanji.sscale(xyscaled (0.25,0.20) shifted (0,-180))
228   (kanji.grone.ten);
229 build_kanji.sscale(scaled 0.20 shifted (0,-290))
230   (kanji.grone.one);
231 i:=0; forever: exitif find_stroke(i)<1; set_bosize(i,35); i:=i-1; endfor;
232 tsu_render;
233 endtsuglyph;
234
235
236

```

Tomoe Ornaments

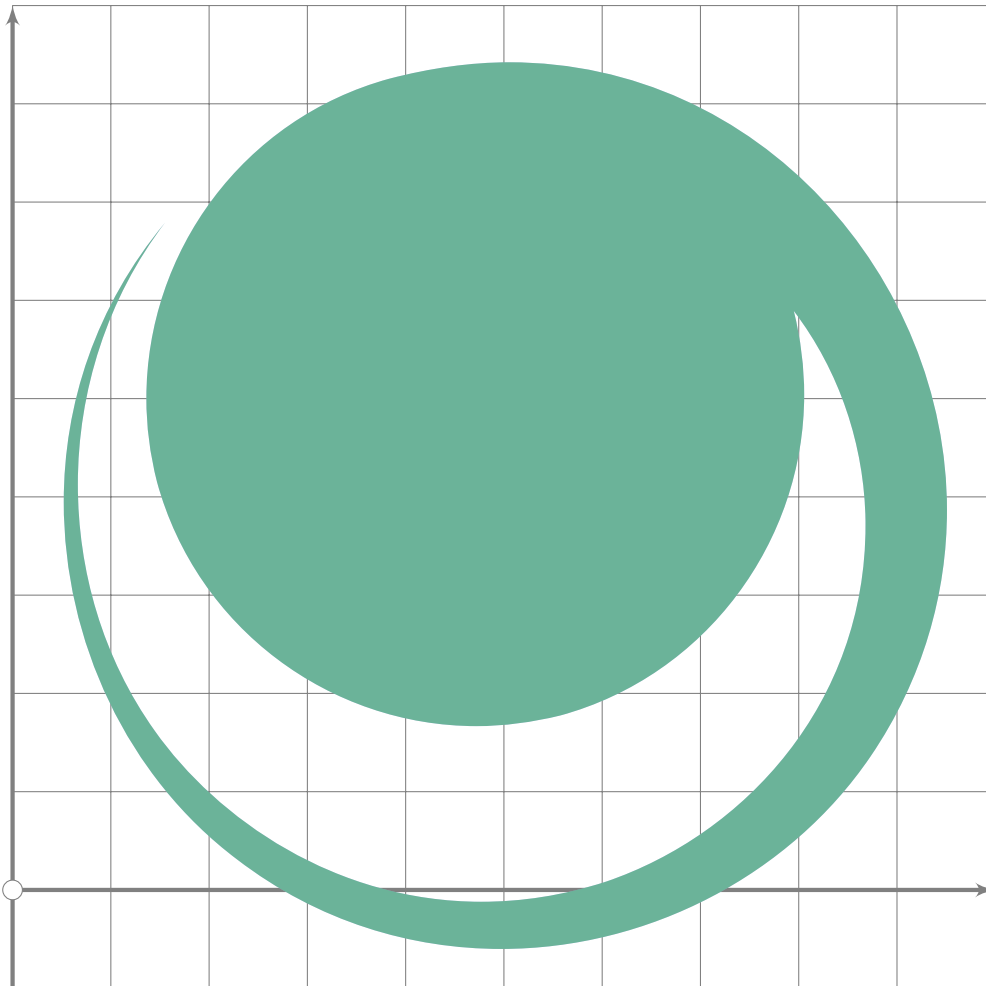
```

237 % TOMOE ORNAMENTS
238
239 vardef spiral_interpolate(expr start_cart,end_cart,ckpts,loops) =
240   begingroup
241     pair start_pol,end_pol,inter_pol;
242
243     start_pol:=(abs(start_cart),angle(start_cart));
244     end_pol:=(abs(end_cart),angle(end_cart));
245     if (ypart start_pol)-(ypart end_pol)>180:
246       start_pol:=start_pol+(0,360);
247     fi;
248     if (ypart end_pol)-(ypart start_pol)>180:
249       end_pol:=end_pol+(0,360);
250     fi;
251     end_pol:=end_pol+(0,360*loops);
252     for i=1 upto ckpts:
253       begingroup
254         inter_pol:=(i/(ckpts+1))[start_pol,end_pol];
255         ((dir ypart inter_pol)*xpart inter_pol)
256       endgroup
257       if i<ckpts: .. fi
258     endfor
259   endgroup
260 enddef;
261
262 vardef make_tomoe(expr k,ir,or,hr,phase,
263   tail_start,tail_advance,ckpts,do_flip) =
264   begingroup
265     path tomoe;

```

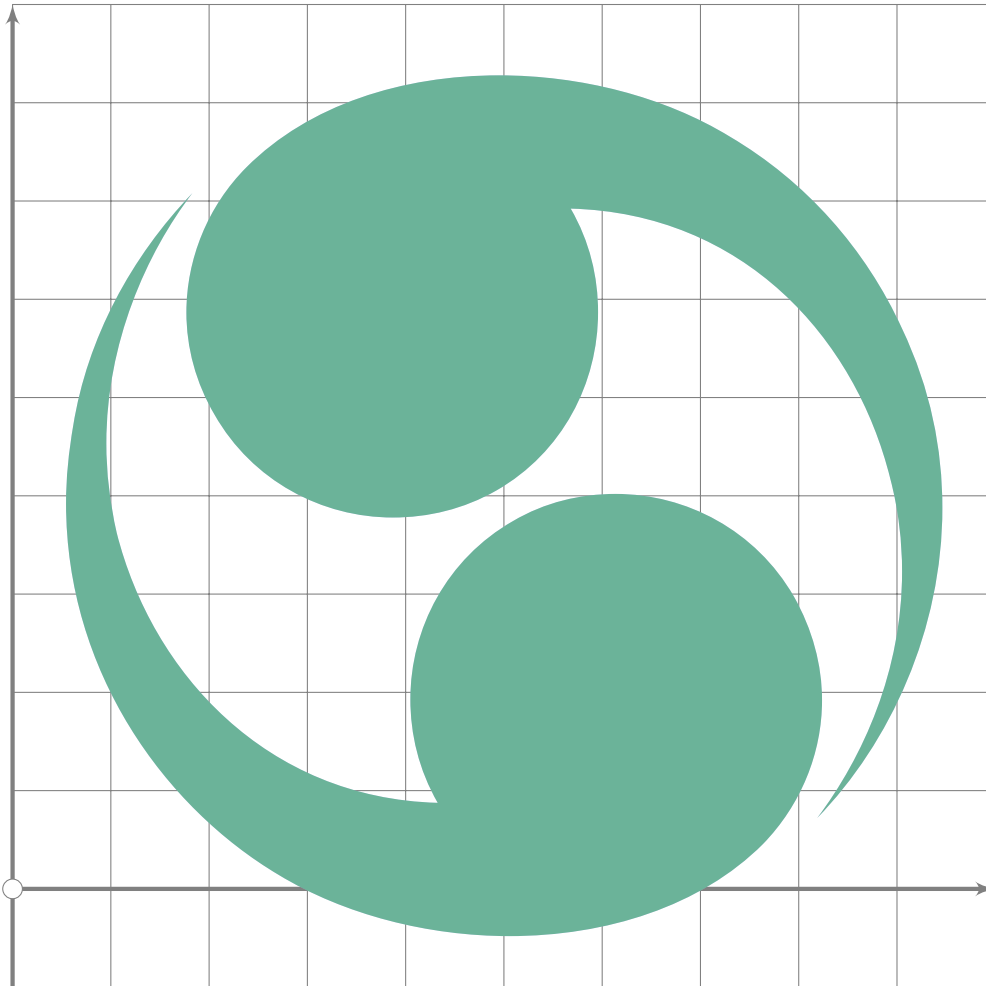
U+F1731
tsuku.tomoe1

```
266 pair tail_tip;
267
268 loops:=if k=1: 1 else: 0 fi;
269 tail_tip:=(dir (tail_advance-360/k))*or;
270 tomoe:=(subpath (tail_start/90,3) of (right..up..left..down..cycle))
271   scaled hr shifted (ir+hr,0);
272 tomoe:=tomoe{curl 1}..
273   spiral_interpolate(point infinity of tomoe,tail_tip,ckpts,-loops)..
274   {curl 1}tail_tip{curl 1}..
275   spiral_interpolate(tail_tip,point 0 of tomoe,ckpts,loops)..cycle;
276
277 if do_flip: tomoe:=tomoe xscaled -1; fi;
278
279 for i=1 upto k:
280   dangerousFill tomoe rotated (phase+i*360/k) shifted centre_pt;
281 endfor;
282 endgroup;
283 enddef;
284
```



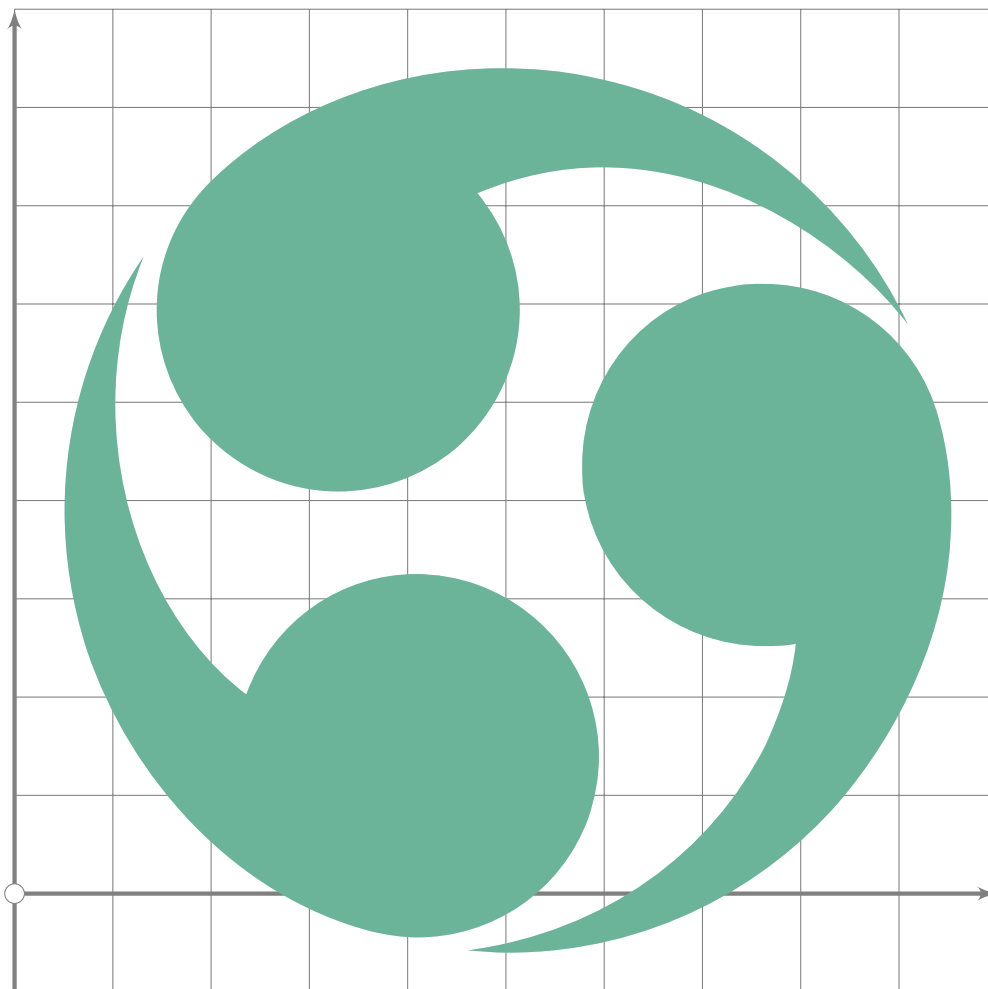
```
285 % hitotsudomoe ornament
286 begint Suglyph("tomoe1";49);
```

```
287 make_tomoe(1;219450,335,105,0,35,6,false);  
288 endtsuglyph;  
289
```

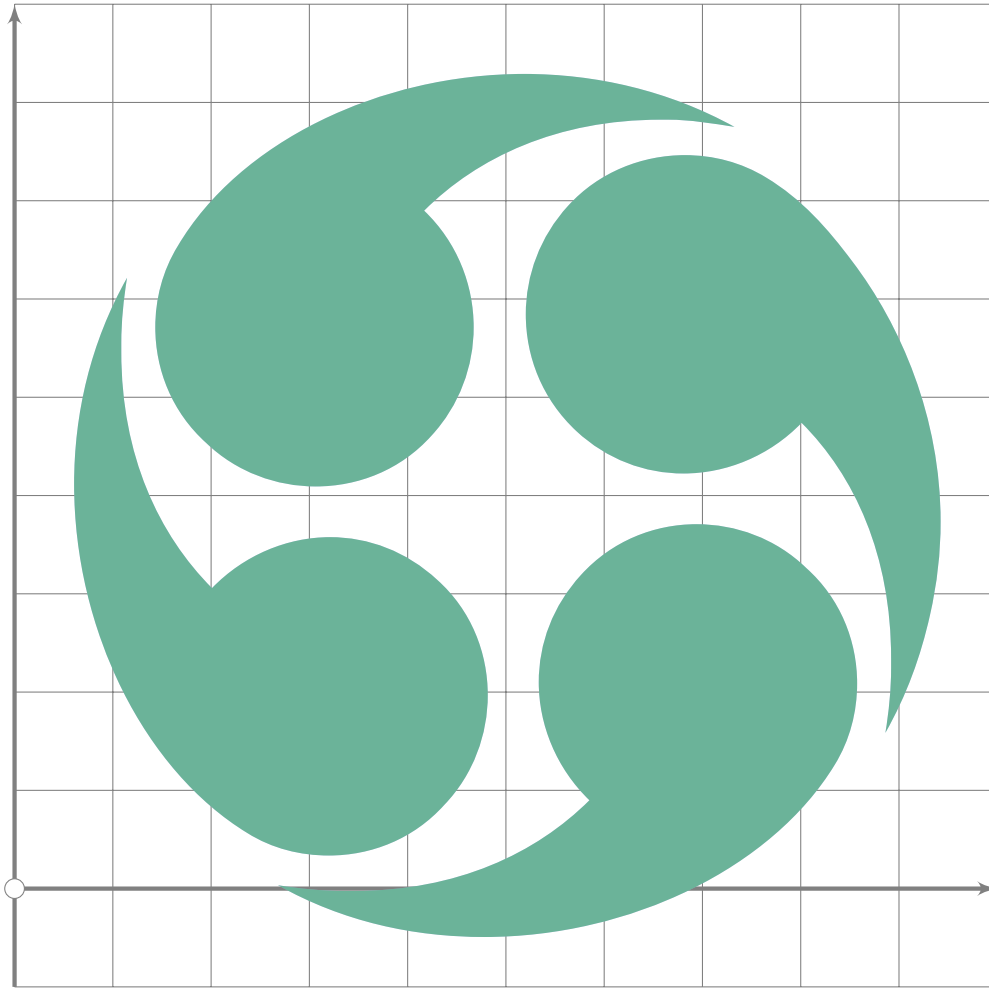


```
290 % futatsudomoe ornament  
291 begint Suglyph("tomoe2",50);  
292 make_tomoe(2,17450,210,120,15,15,4,false);  
293 endtsuglyph;  
294
```

U+F1733
tsuku.tomoe3

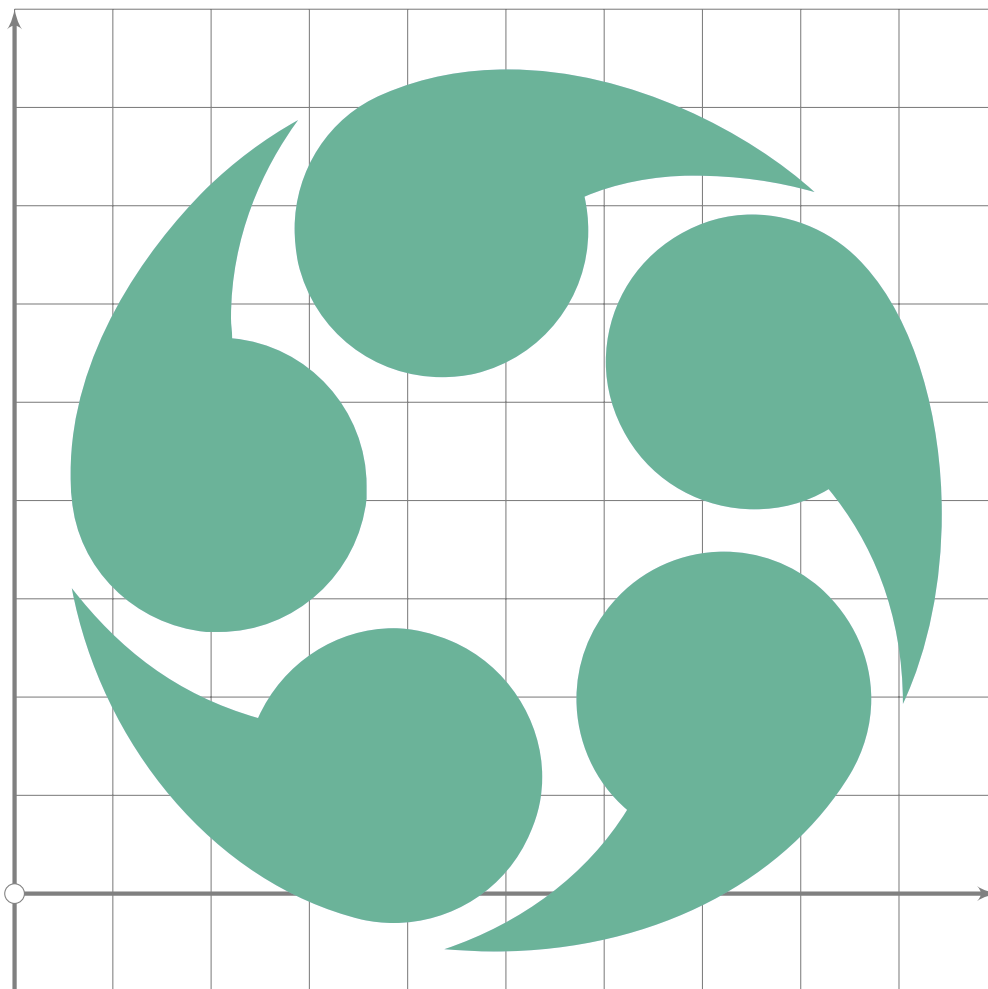


```
295 % mitsudomoe ornament
296 begintsuglyph("tomoe3",51);
297   make_tomoe(3,81,450,185,130,5,15,3,false);
298 endtsuglyph;
299
```

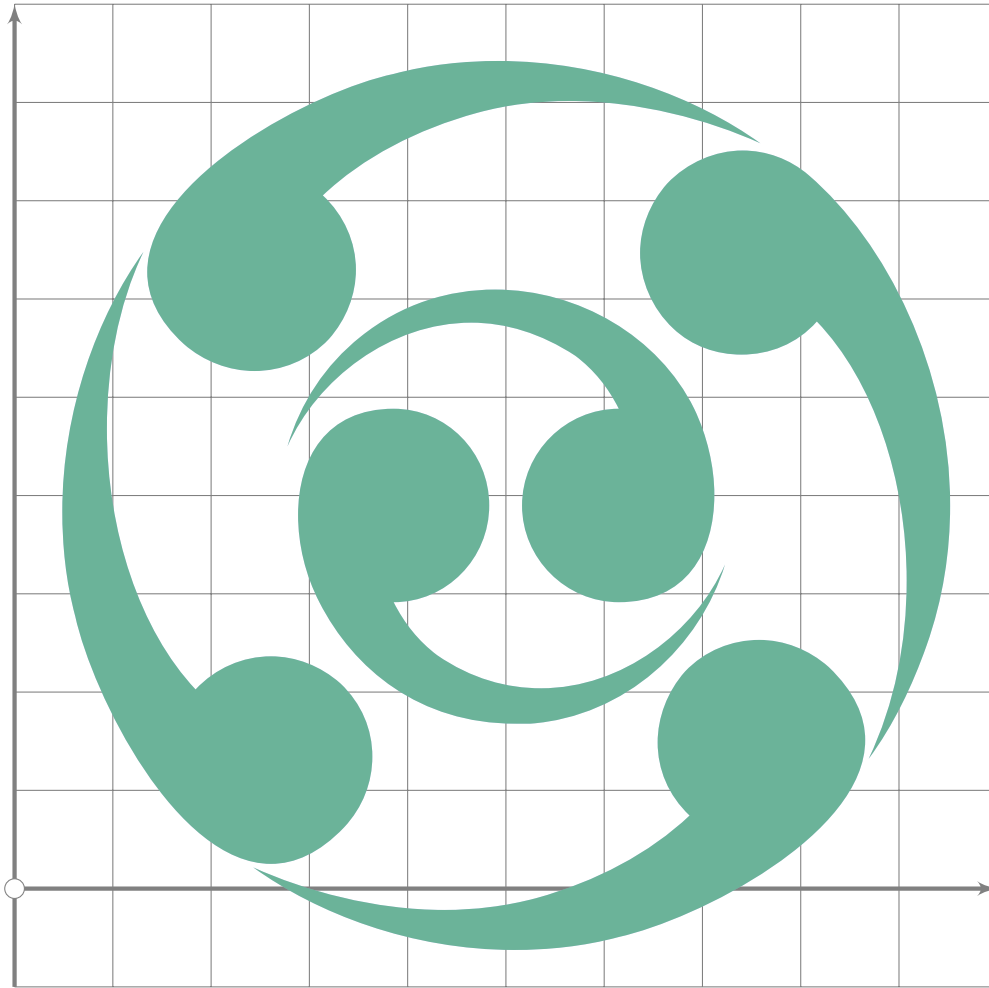


```
300 % yotsudomoe ornament
301 beginsuglyph("tomoe4";52);
302   make_tomoe(4,104,450,162,47,12,12,4,false);
303 endtsuglyph;
304
```

U+F1735
tsuku.tomoe5

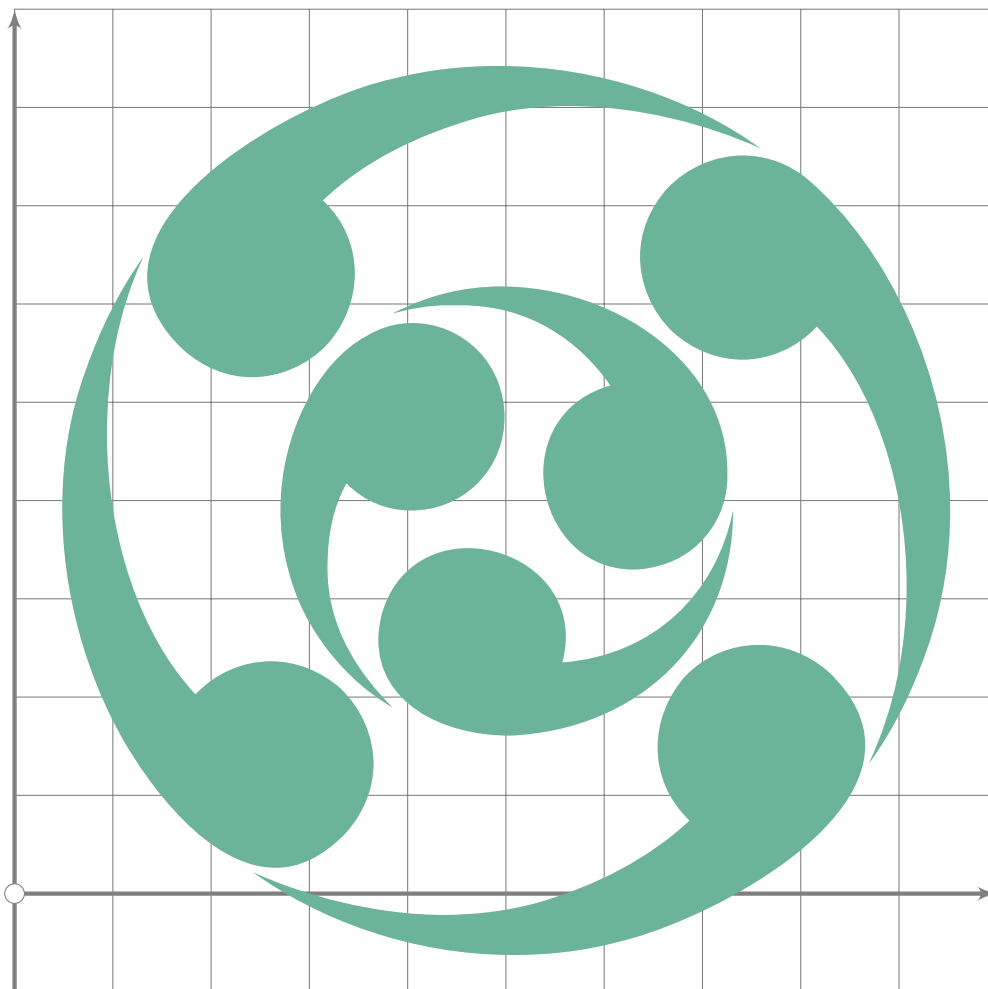


```
305 % 5-tsudomoe ornament
306 begintsuglyph("tomoe5",53);
307   make_tomoe(5,143,450,150,31,10,15,3,false);
308 endtsuglyph;
309
```

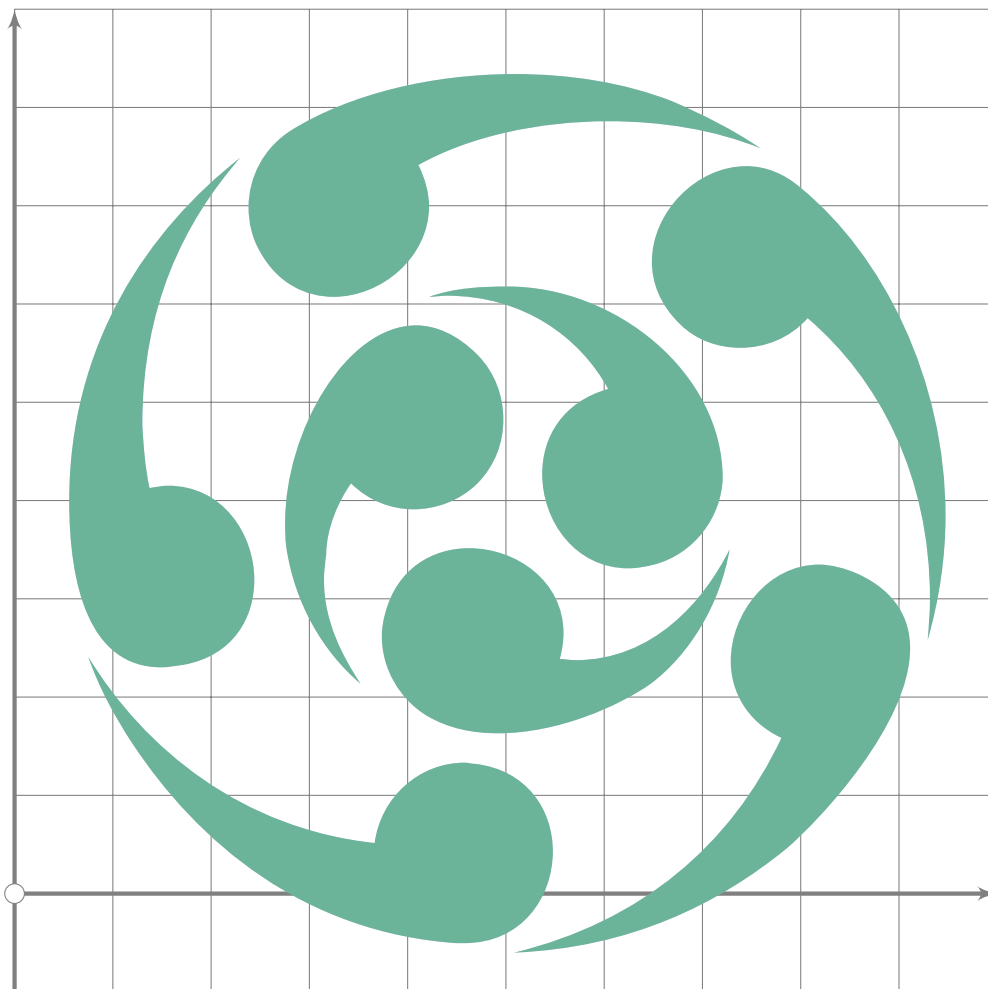


```
310 % 6-tsudomoe ornament
311 begintsuglyph("tomoe6",54);
312   make_tomoe(4,248,450,104,47,2,8,4,false);
313   make_tomoe(2,17,231,98,0,15,15,4,true);
314 endsuglyph;
315
```


U+F1737
tsuku.tomoe7



```
316 % 7-tsudomoe ornament
317 beginsuglyph("tomoe7";55);
318   make_tomoe(4,248,450,104,47,2,8,4,false);
319   make_tomoe(340,231,95,75,15,15,4,true);
320 endsuglyph;
321
```



```

322 % 8-tsudomoe ornament
323 begintsuglyph("tomoe8",56);
324   make_tomoe(5,260,450,92,47,2,8,4,false);
325   make_tomoe(340,231,92,75,15,25,4,true);
326 endtsuglyph;
327
328 endgroup;
329
330
331
```

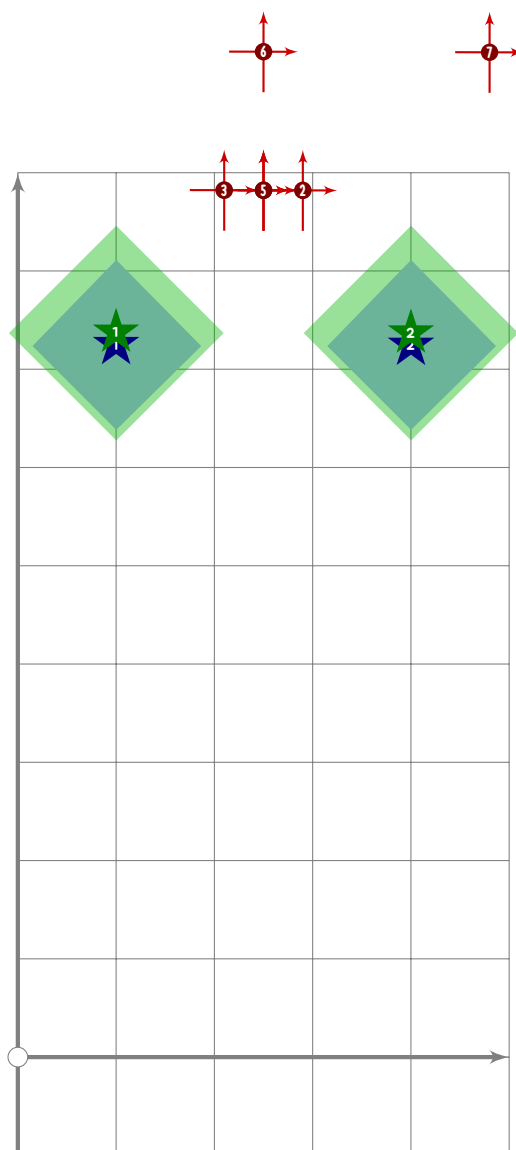
F17

Heavy Metal Umlaut

```

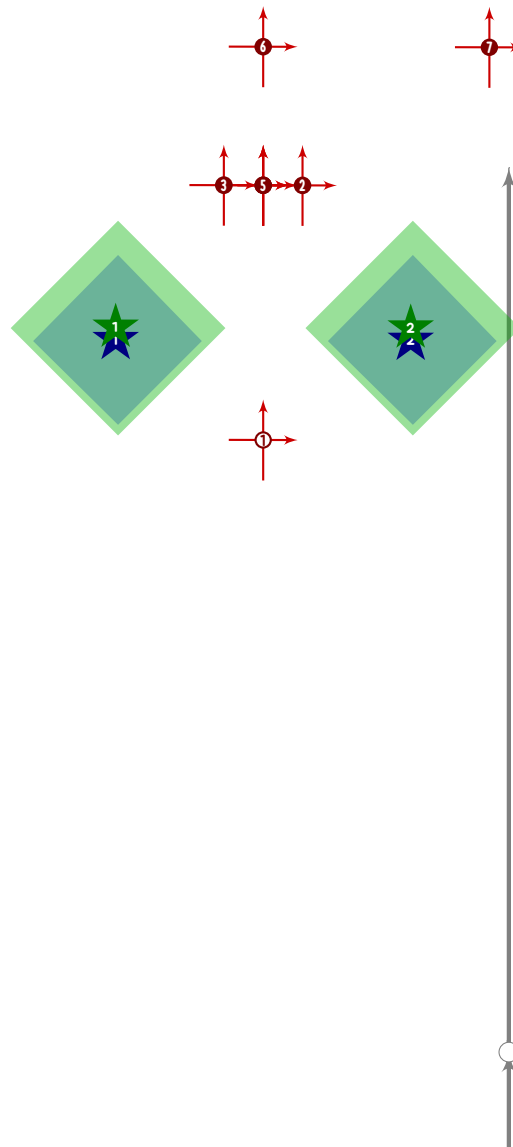
332 % HEAVY METAL UMLAUT
333
334 % WARNING, setting rescale
335 tsu_rescale_half;
336
```

U+F1740
tsuku.dieresis.hmu



```
337 % naked heavy metal umlaut
338 begintsuglyph("dieresis.hmu",64);
339 tsu_accent.apply()(tsu_accent.heavy_metal_umlaut);
340 tsu_render;
341 endsuglyph;
342
343 % WARNING, setting rescale
344 tsu_rescale_combining_accent;
345
```

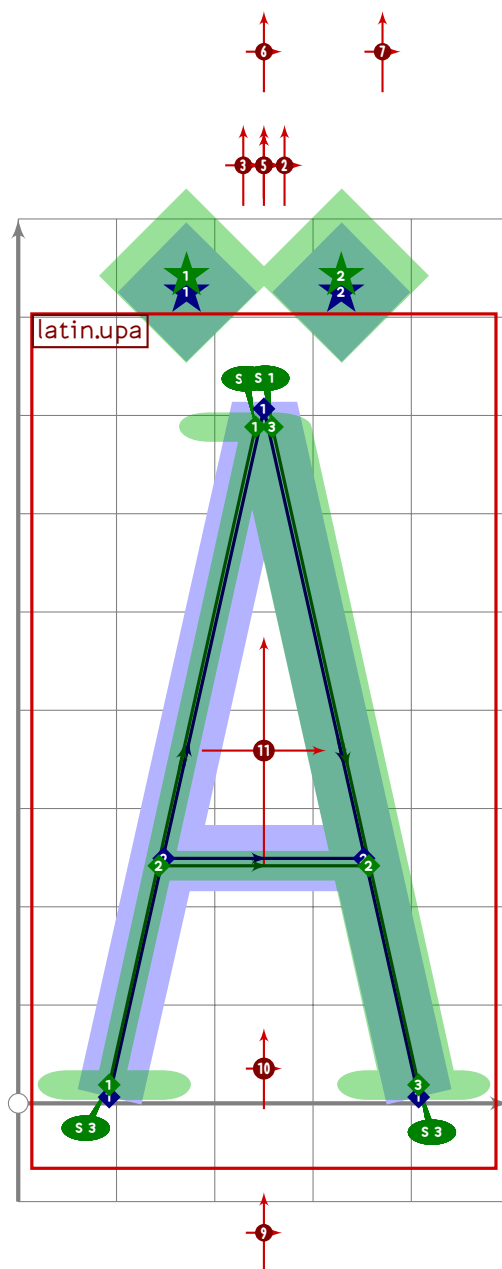
F17



```

346 % combining heavy metal umlaut
347 begint Suglyph("uni0308.hmu",65);
348   tsu_accent.apply()(tsu_accent.heavy_metal_umlaut);
349   push_anchor(-anc_upper,accent_default[anc_upper]);
350   tsu_render;
351 endtsuglyph;
352
353 % WARNING, setting rescale
354 tsu_rescale_half;
355
356 tsu_accent.up_default_anchors;
357

```

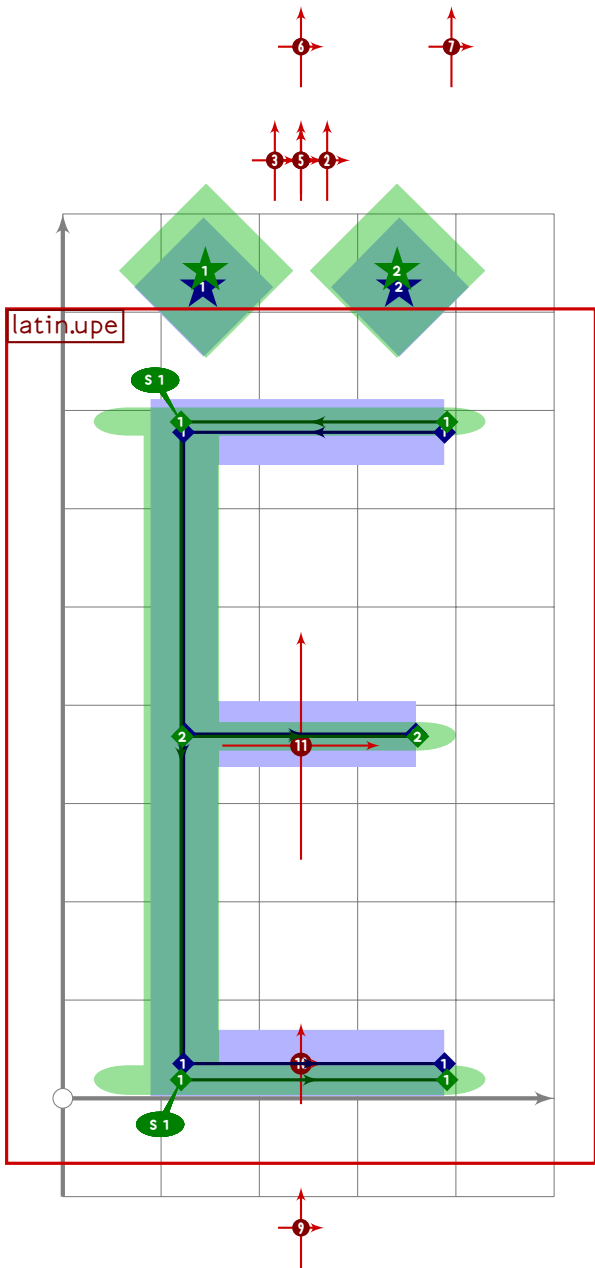


F17

```

358 % A with heavy metal umlaut
359 begintsuglyph("Adieresis.hmu";66);
360   tsu_accent.apply(tsu_accent.capital(latin.upa))
361     (tsu_accent.heavy_metal_umlaut);
362   tsu_render;
363 endtsuglyph;
364

```

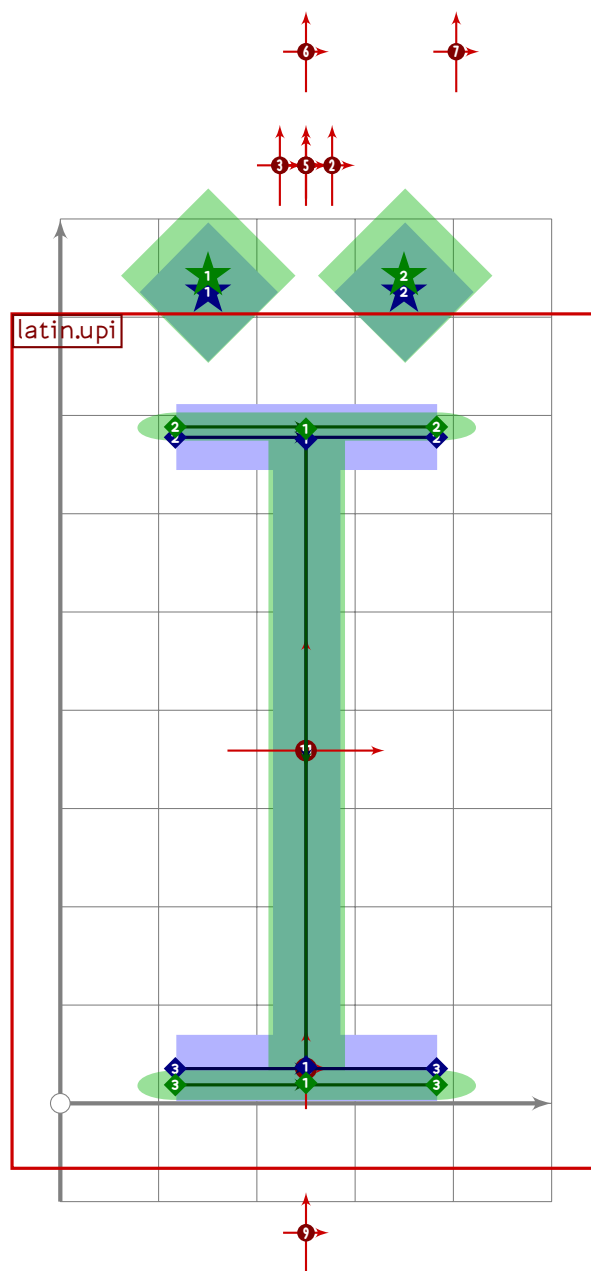


```

365 % E with heavy metal umlaut
366 begintsuglyph("Edieresis.hmu",67);
367   tsu_accent.apply(tsu_accent.capital(latin.ue))
368     (tsu_accent.heavy_metal_umlaut);
369   tsu_render;
370 endtsuglyph;
371

```

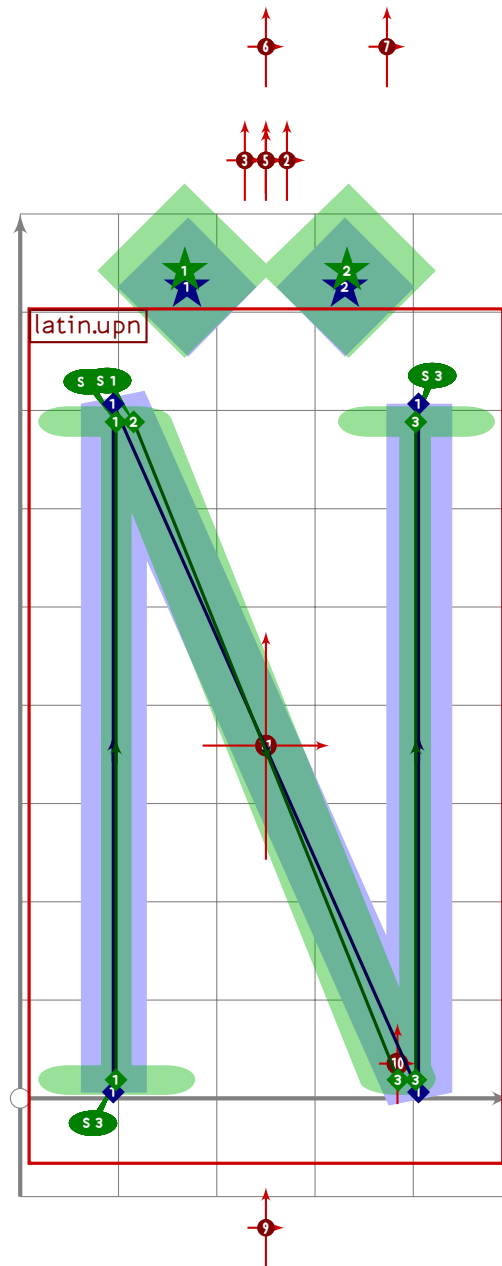
F17



```

372 % I with heavy metal umlaut
373 begint Suglyph("Idieresis.hmu",68);
374   tsu_accent.apply(tsu_accent.capital(latin.upi))
375     (tsu_accent.heavy_metal_umlaut);
376   tsu_render;
377 endtsuglyph;
378

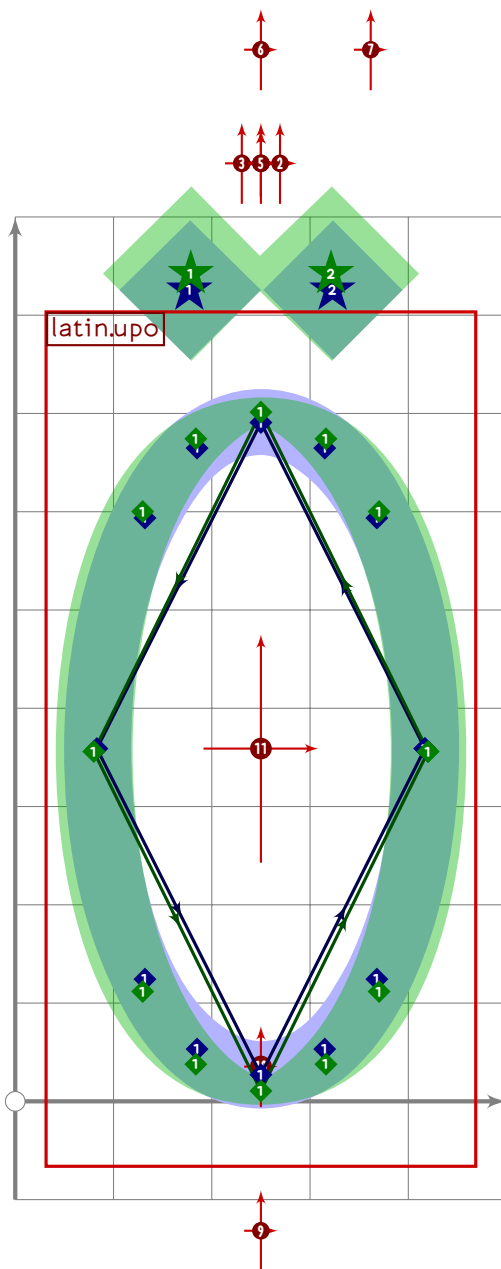
```



```

379 % N with heavy metal umlaut
380 begintsuglyph("Ndieresis.hmu",69);
381   tsu_accent.apply(tsu_accent.capital(latin.upn))
382     (tsu_accent.heavy_metal_umlaut);
383   tsu_render;
384 endtsuglyph;
385

```

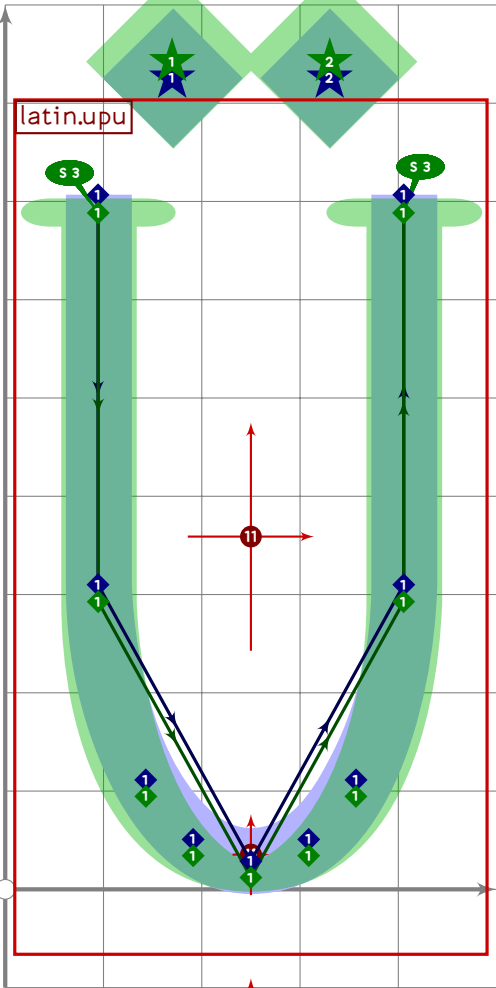



F17

```

386 % O with heavy metal umlaut
387 begintsuglyph("Odieresis.hmu";70);
388     tsu_accent.apply(tsu_accent.capital(latin.upo))
389         (tsu_accent.heavy_metal_umlaut);
390     tsu_render;
391 endtsuglyph;
392

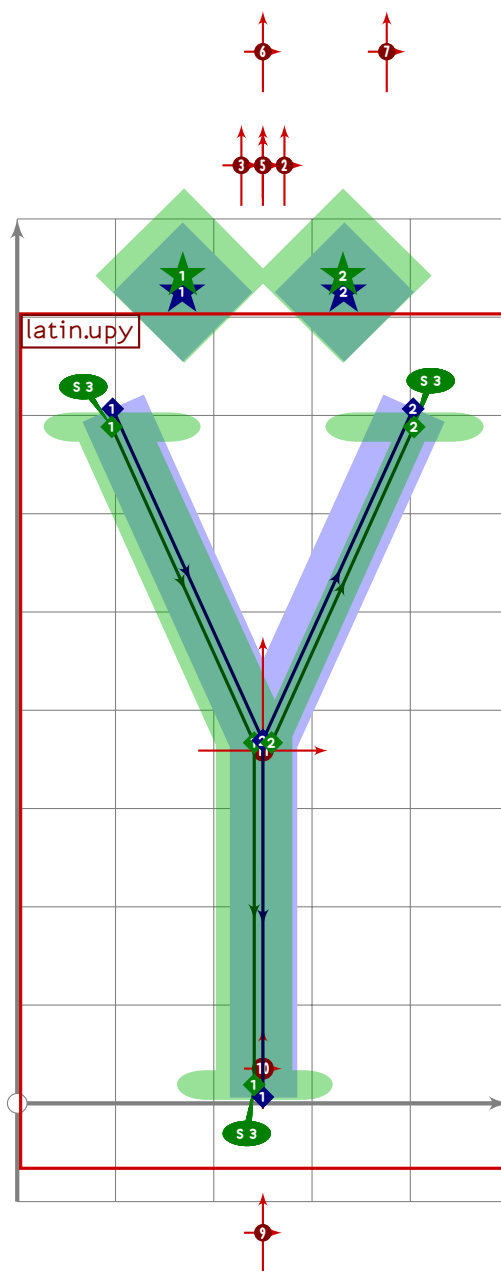
```



```

393 % U with heavy metal umlaut
394 begintsuglyph("Udieresis.hmu;71);
395   tsu_accent.apply(tsu_accent.capital(latin.upu))
396     (tsu_accent.heavy_metal_umlaut);
397   tsu_render;
398 endtsuglyph;
399

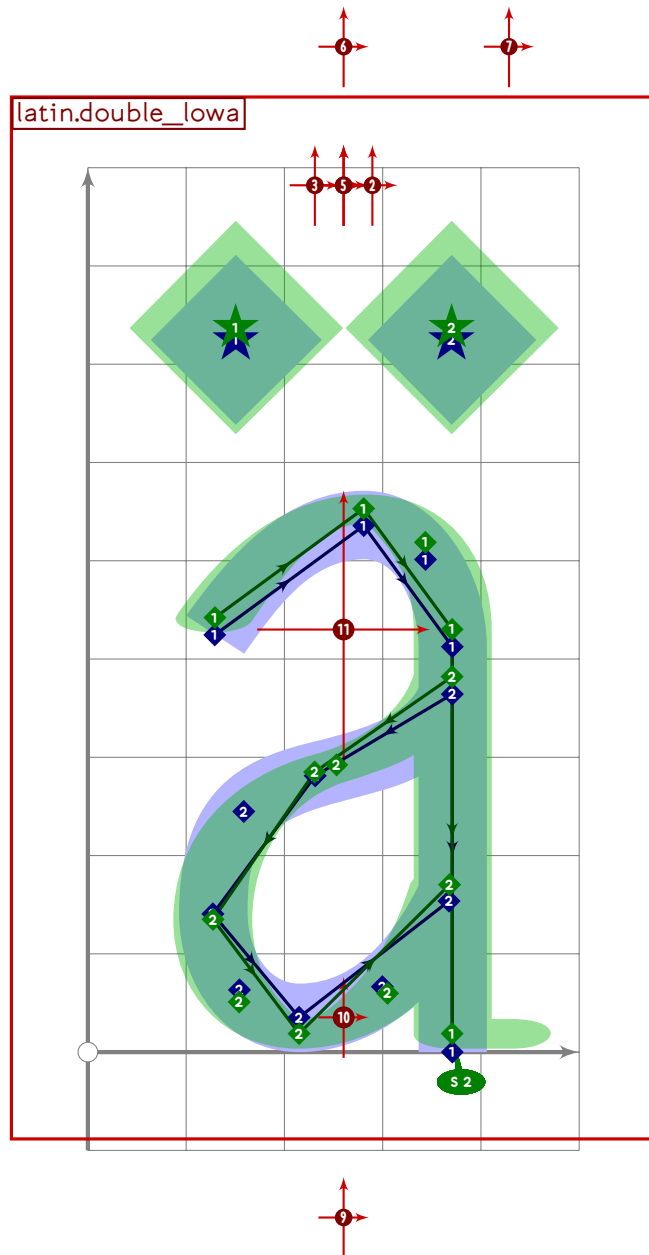
```



```

400 % Y with heavy metal umlaut
401 begint Suglyph("Ydieresis.hmu",72);
402   tsu_accent.apply(tsu_accent.capital(latin.upy))
403     (tsu_accent.heavy_metal_umlaut);
404   tsu_render;
405 endtsuglyph;
406
407 tsu_accent.low_default_anchors;
408

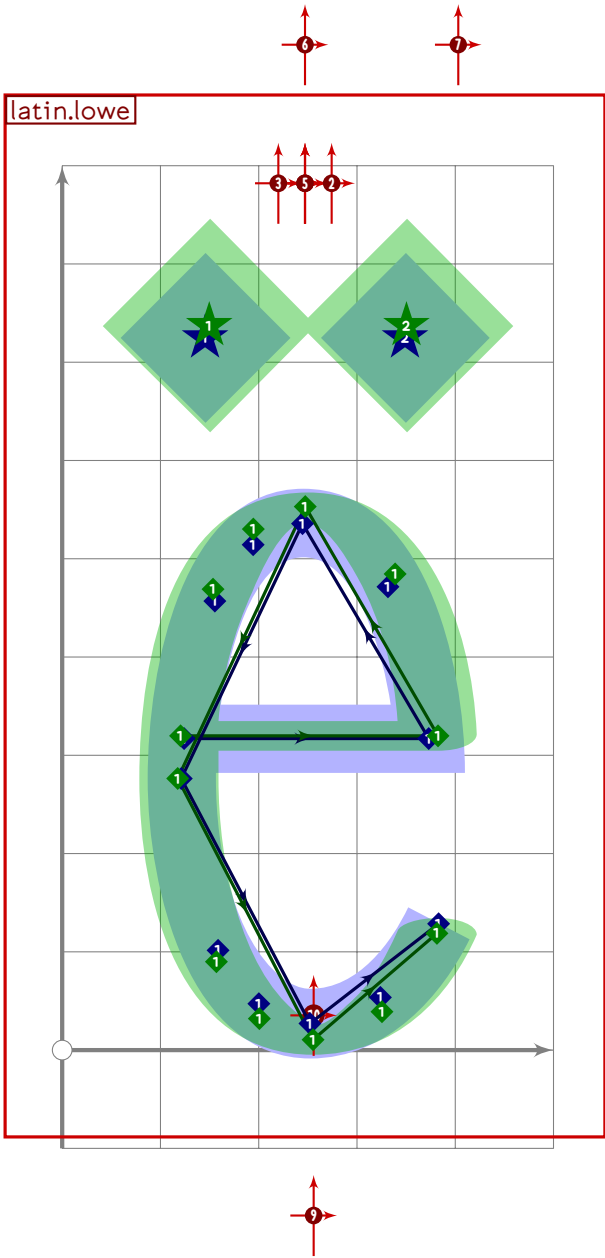
```



```

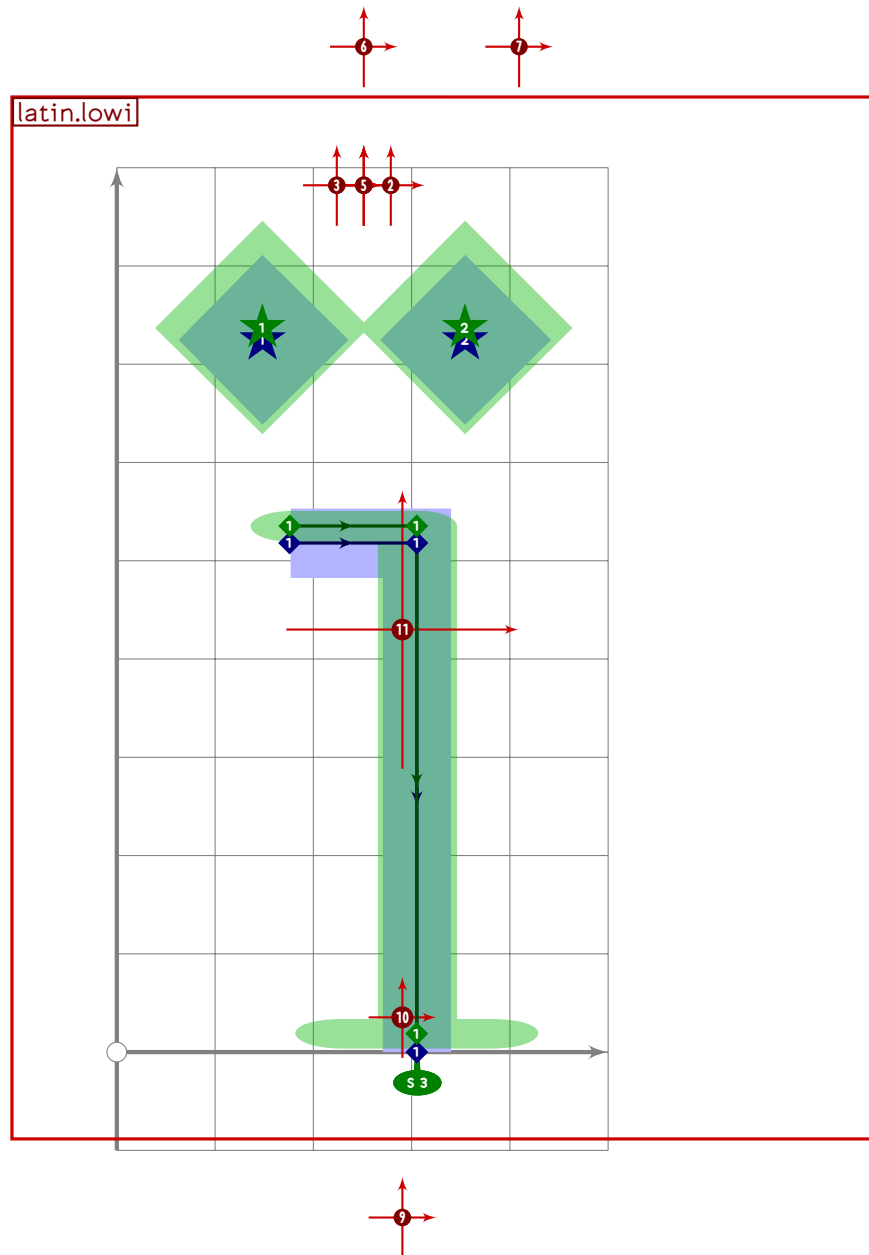
409 % a with heavy metal umlaut
410 begint Suglyph("adieresis.hmu",73);
411   tsu_accent.apply(latin. lowa)(tsu_accent.heavy_metal_umlaut);
412   tsu_render;
413 endtsuglyph;
414

```



F17

```
415 % e with heavy metal umlaut
416 begint Suglyph("edieresis.hmu",74);
417   tsu_accent.apply(latin.love)(tsu_accent.heavy_metal_umlaut);
418   tsu_render;
419 endtsuglyph;
420
```

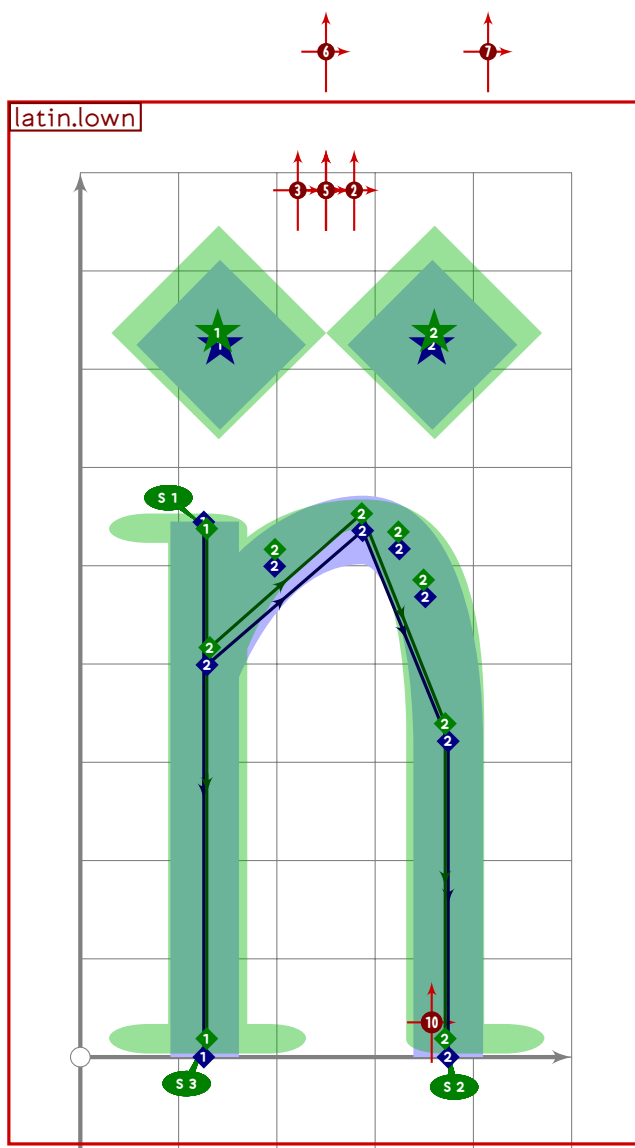


```

421 % i with heavy metal umlaut
422 begintsuglyph("idieresis.hmu",75);
423   tsu_accent.apply(
424     tsu_xform(identity shifted (70,0))(latin.lowi;
425       tsu_accent.shift_anchors(true)((0,0)));
426     pop_lcblob;
427   )(tsu_accent.heavy_metal_umlaut);
428   tsu_render;
429 endsuglyph;
430

```

U+F174C
tsuku.ndieresis.hmu

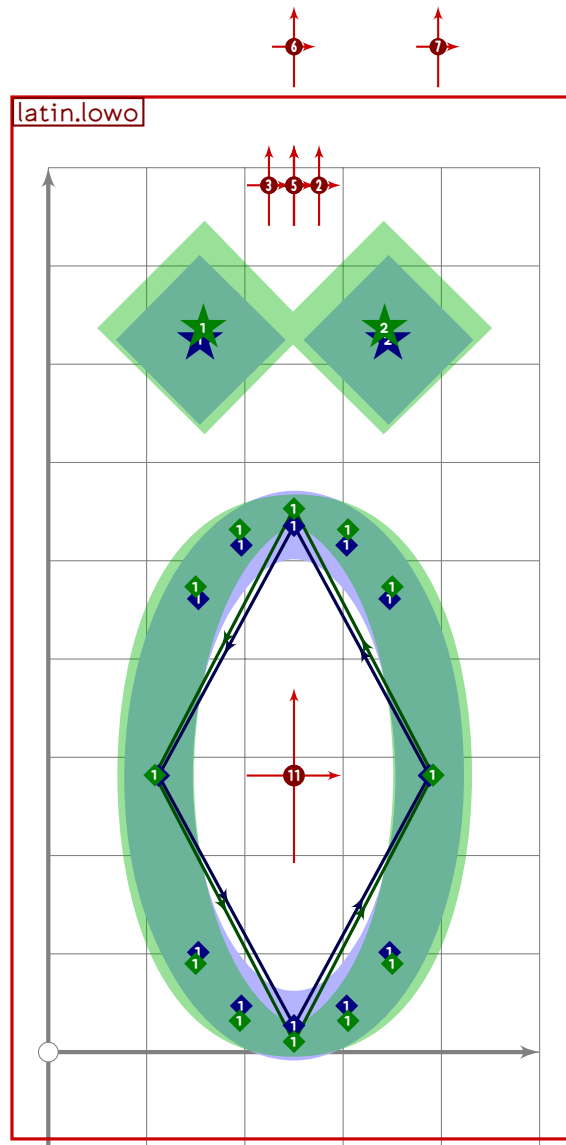


```

431 % n with heavy metal umlaut
432 beginsuglyph("ndieresis.hmu",76);
433   tsu_accent.apply(latin.lown)(tsu_accent.heavy_metal_umlaut);
434   tsu_render;
435 endsuglyph;
436

```

F17

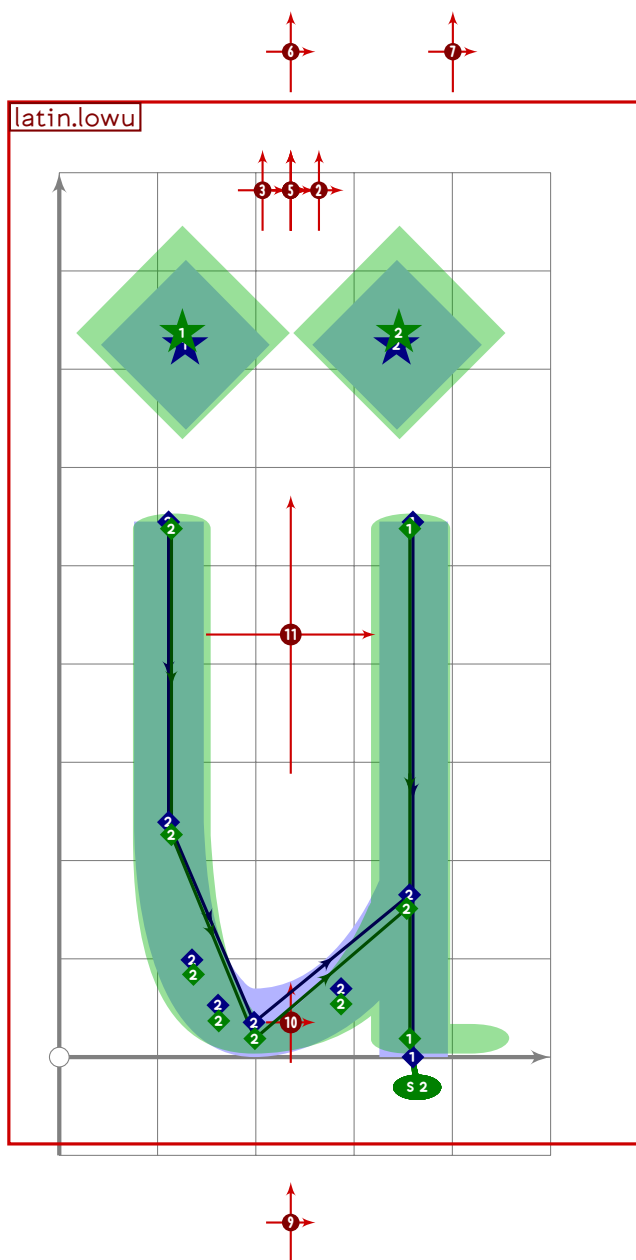


```

437 % o with heavy metal umlaut
438 begintsuglyph("odieresis.hmu";77);
439   tsu_accent.apply(latin.lowo)(tsu_accent.heavy_metal_umlaut);
440   tsu_render;
441 endsuglyph;
442

```


U+F174E
tsuku.udieresis.hmu

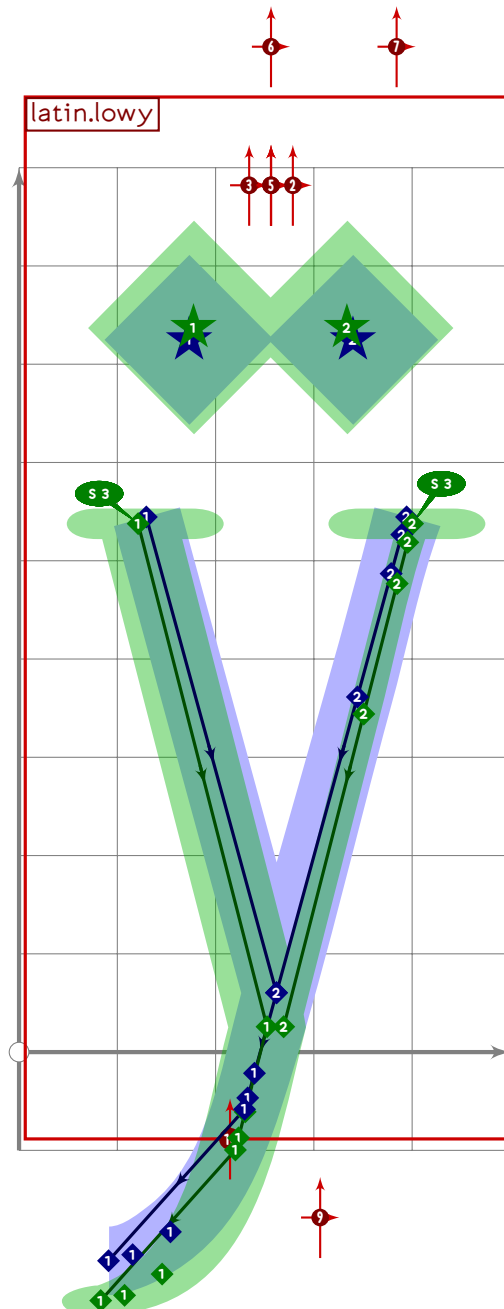


```

443 % u with heavy metal umlaut
444 begint Suglyph('udieresis.hmu',78);
445   tsu_accent.apply(latin.lowu)(tsu_accent.heavy_metal_umlaut);
446   tsu_render;
447 endtsuglyph;
448

```

F17



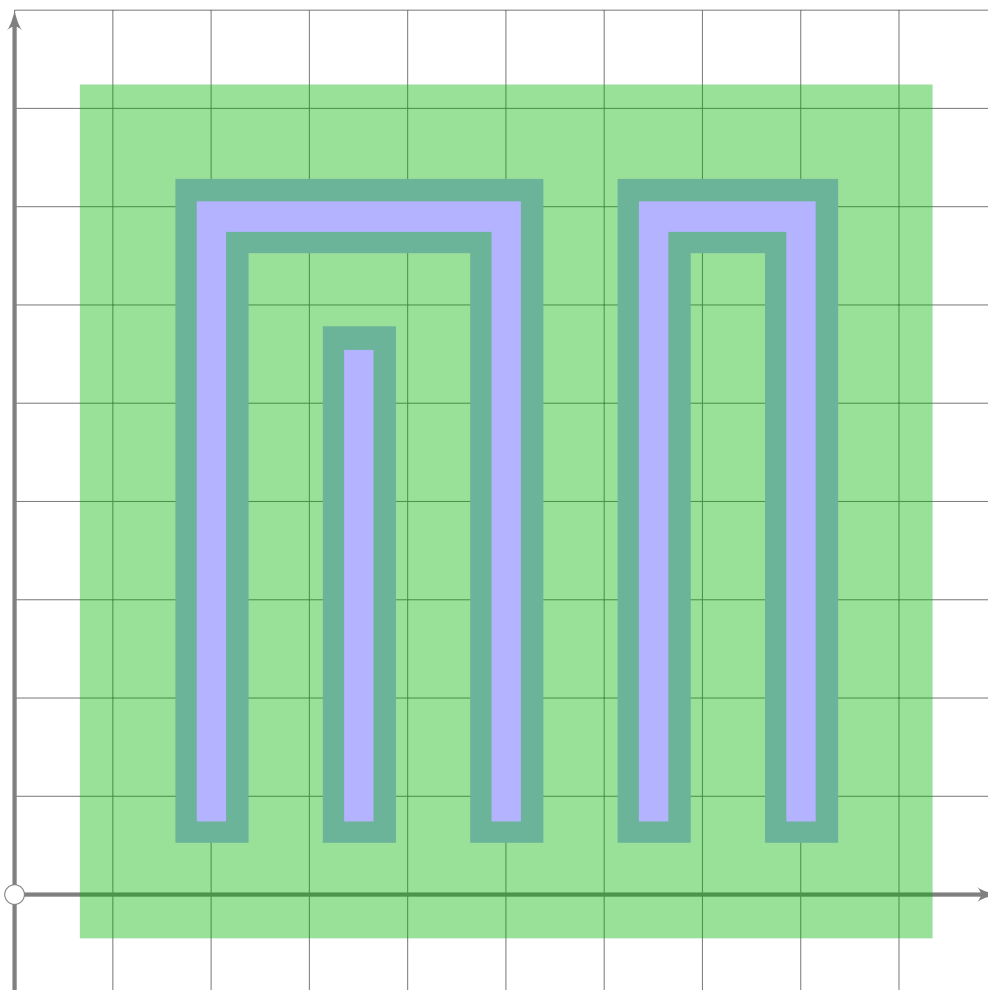
```

449 % y with heavy metal umlaut
450 beginsuglyph("ydieresis.hmu",79);
451   tsu_accent.apply(latin.lowy)(tsu_accent.heavy_metal_umlaut);
452   tsu_render;
453 endtsuglyph;
454
455 tsu_accent.clear_default_anchors;
456
457
458

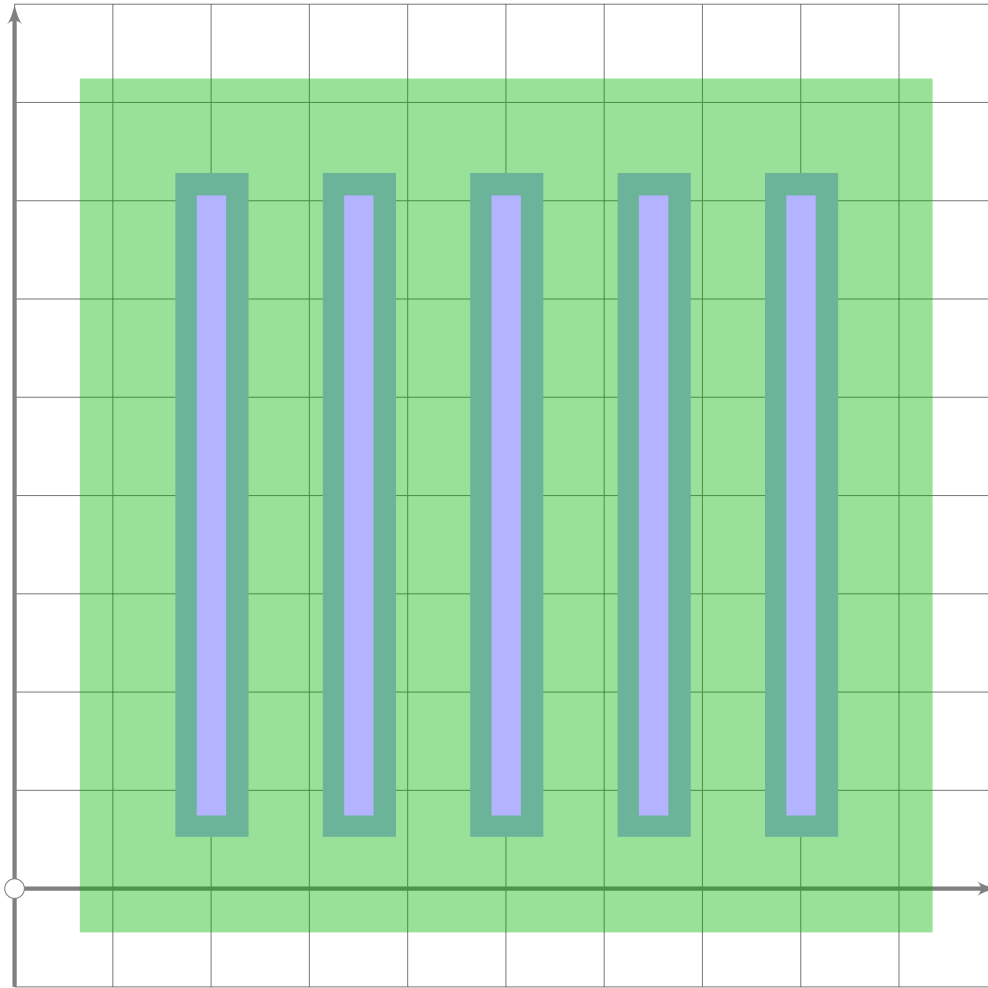
```

Genjimon

```
459 % GENJIMON
460
461 begingroup
462 save rescale_slant;
463 rescale_slant:=0;
464
465 % WARNING, setting rescale
466 tsu_rescale_full;
467
468 input genjimon.mp;
469
```

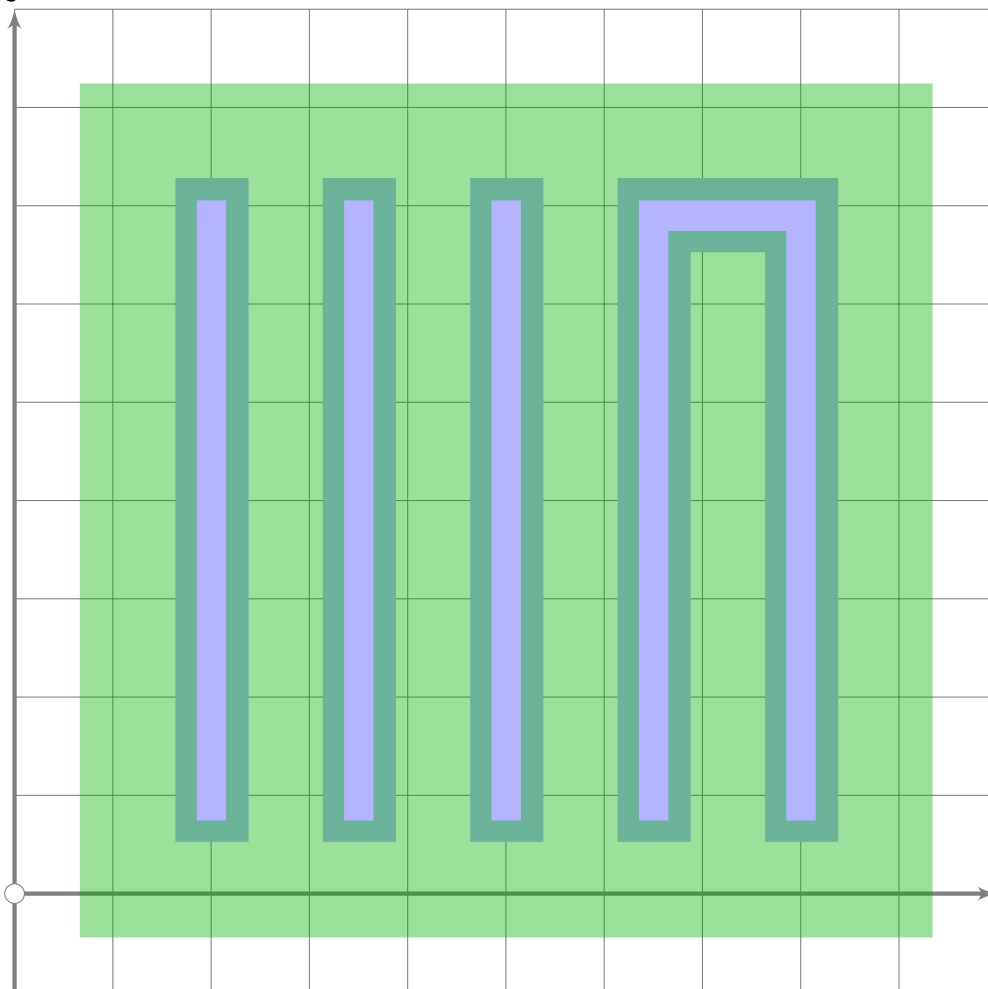


```
470 % #1 Kiritsubo
471 begintsuglyph("genjimon01",193);
472   genjimon.kiritsubo;
473 endtsuglyph;
474
```

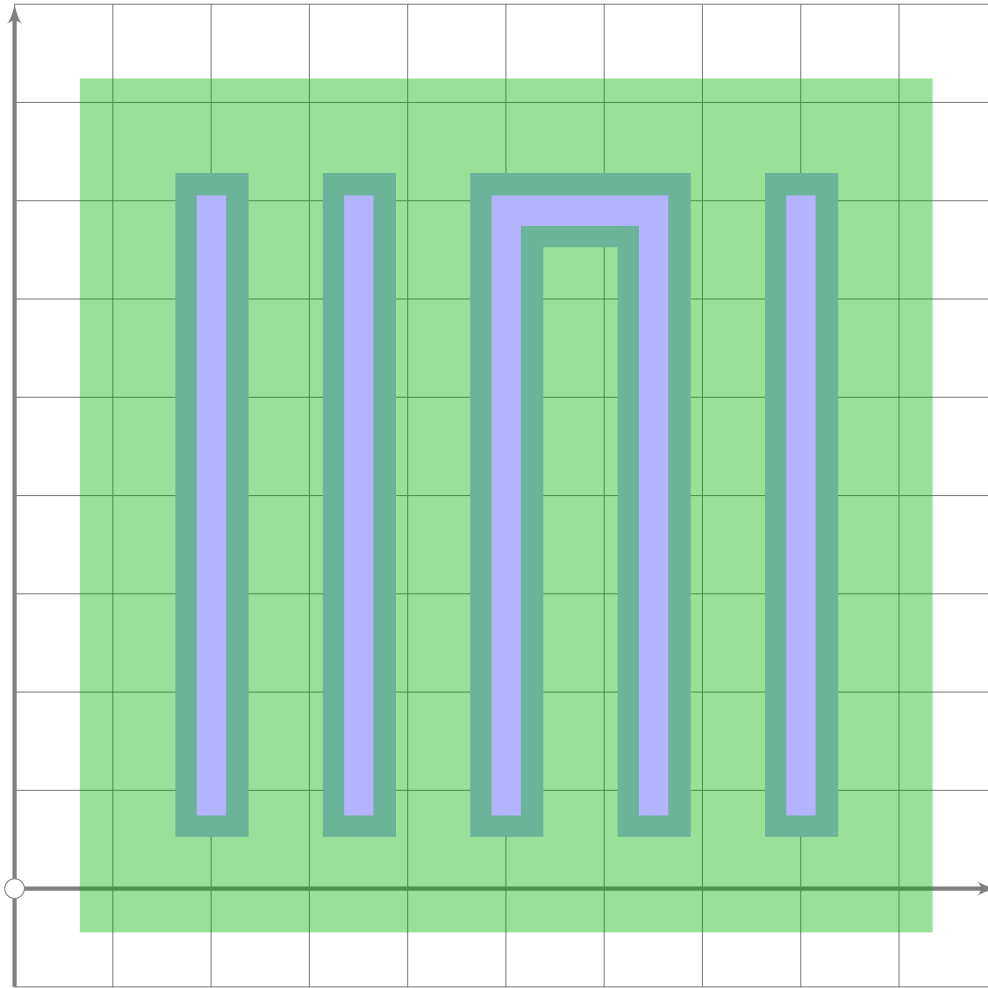


```
475 % #2 Hahakigi
476 beginsuglyph("genjimon02",194);
477   genjimon.hahakigi;
478 endsuglyph;
479
```

U+F17C3
tsuku.genjimon03

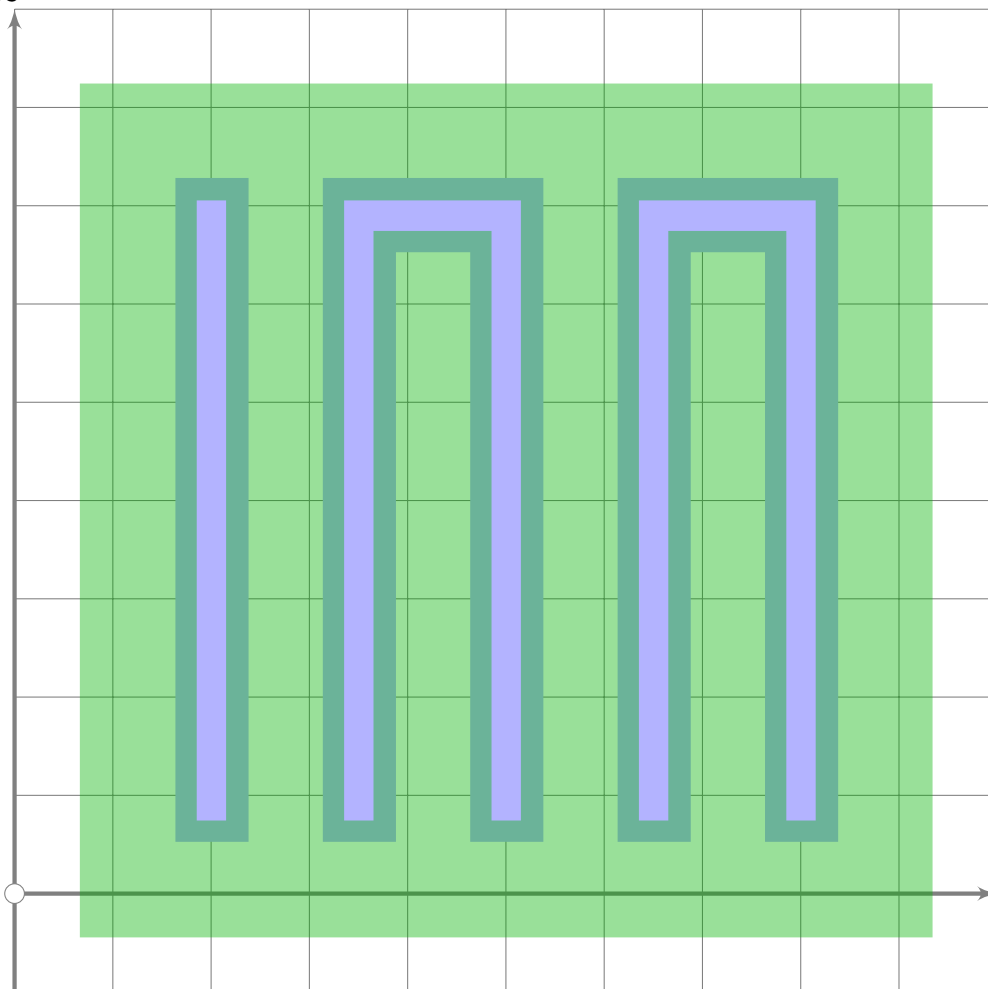


```
480 % #3 Utsusemi  
481 beginsuglyph("genjimon03",195);  
482   genjimon.utsusemi;  
483 endsuglyph;  
484
```

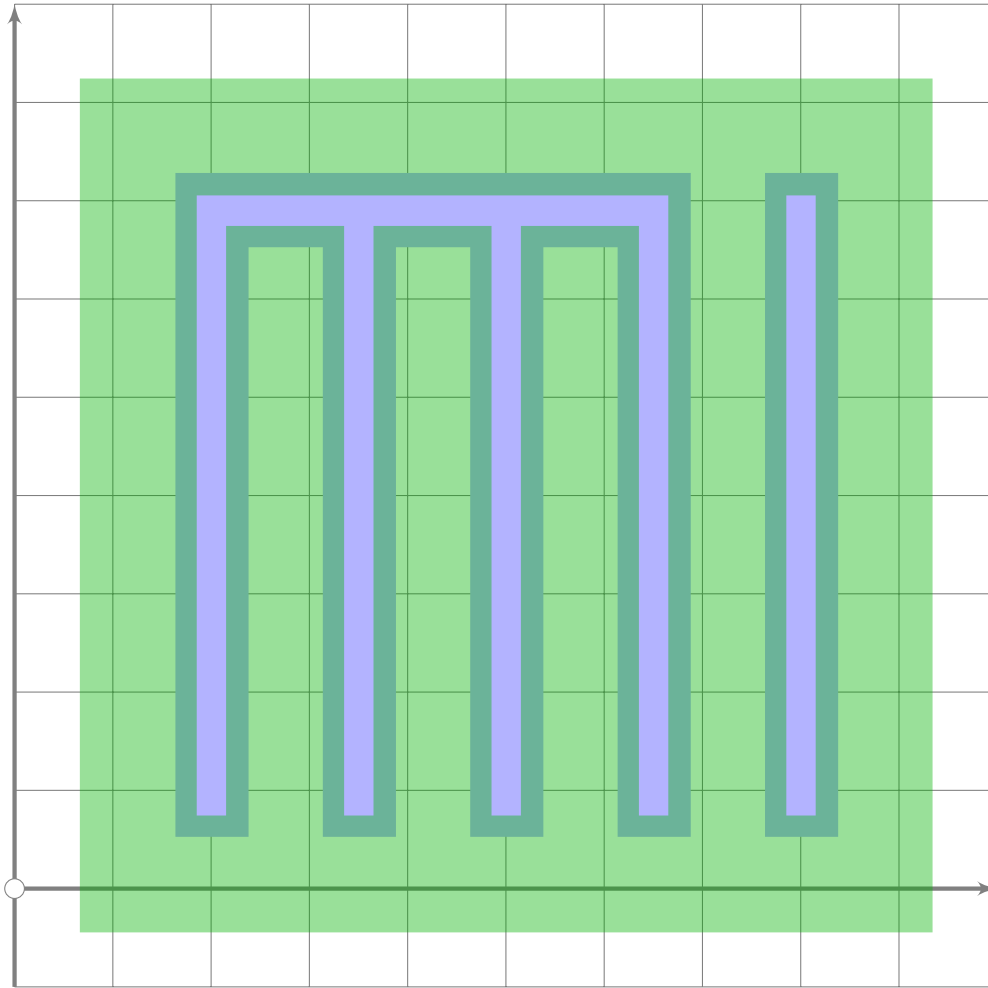


```
485 % #4 Yuugao
486 beginsuglyph("genjimon04",196);
487   genjimon.yuugao;
488 endsuglyph;
489
```

U+F17C5
tsuku.genjimon05

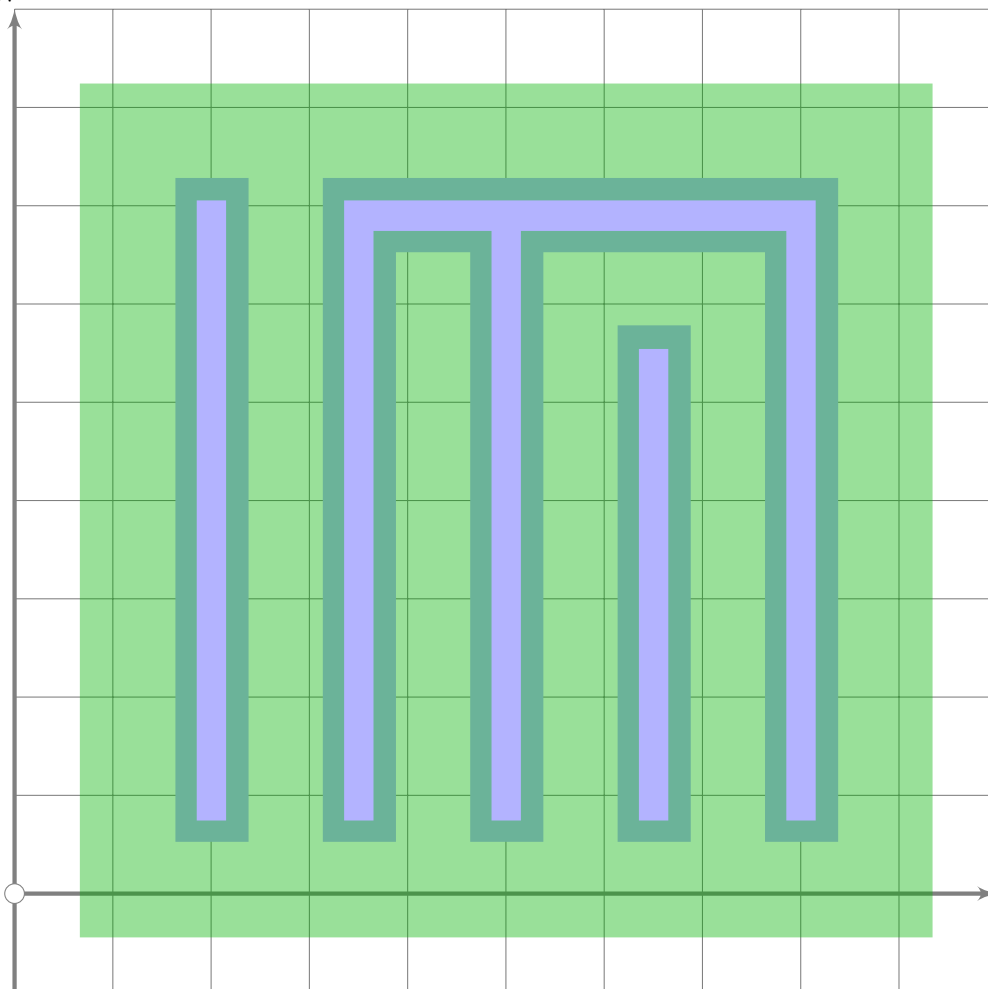


```
490 % #5 Wakamurasaki
491 begintsuglyph("genjimon05",197);
492   genjimon.wakamurasaki;
493 endtsuglyph;
494
```

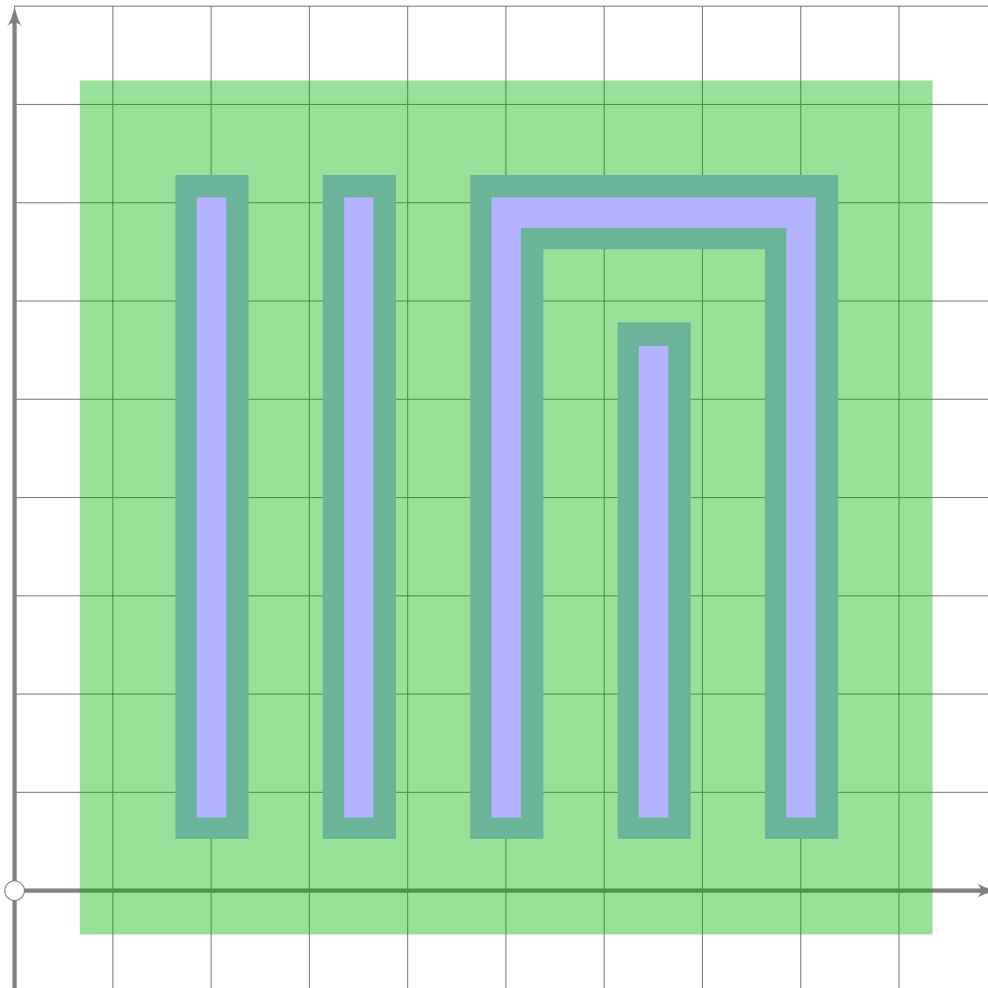


```
495 % #6 Suetsumuhana
496 beginsuglyph("genjimon06",198);
497   genjimon.suetsumuhana;
498 endsuglyph;
499
```


U+F17C7
tsuku.genjimon07

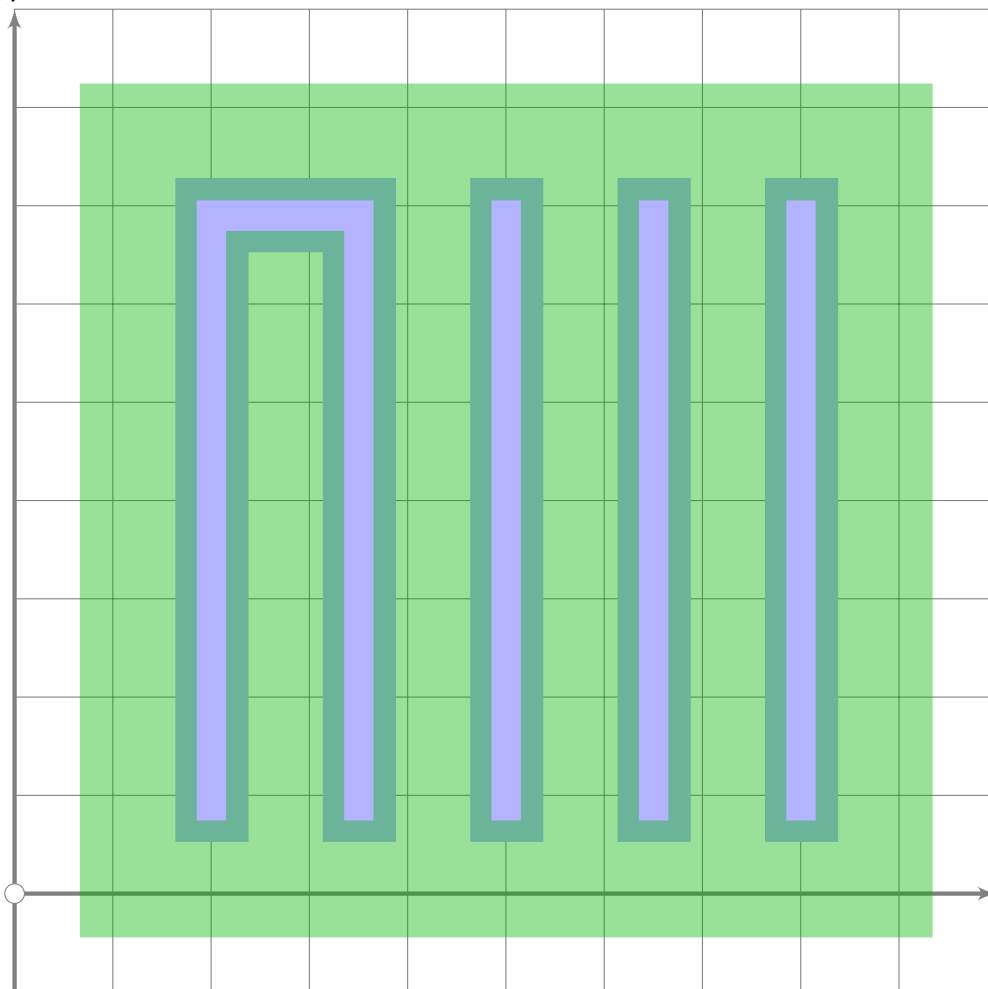


```
500 % #7 Momiji no Ga
501 begintsuglyph("genjimon07",199);
502   genjimon.momiji_no_ga;
503 endtsuglyph;
504
```

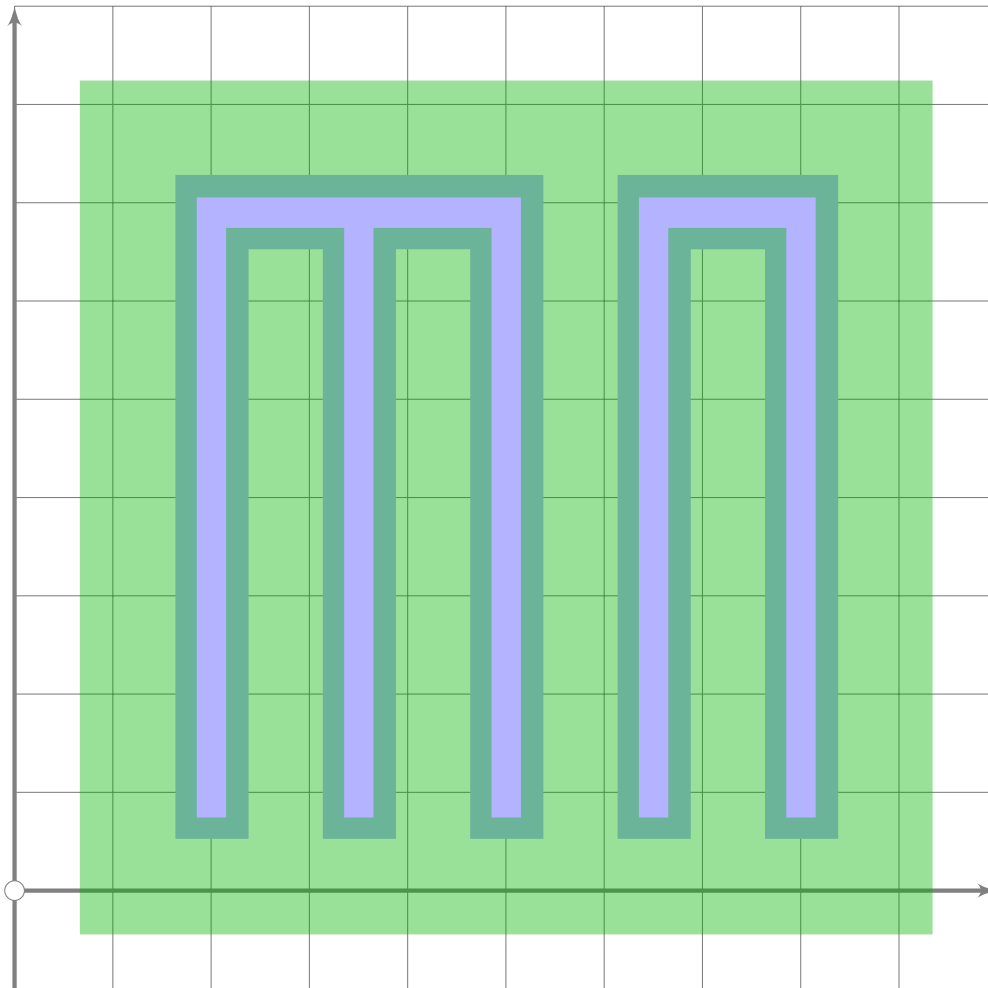


```
505 % #8 Hana no En
506 beginsuglyph("genjimon08",200);
507   genjimon.hana_no_en;
508 endsuglyph;
509
```

U+F17C9
tsuku.genjimon09

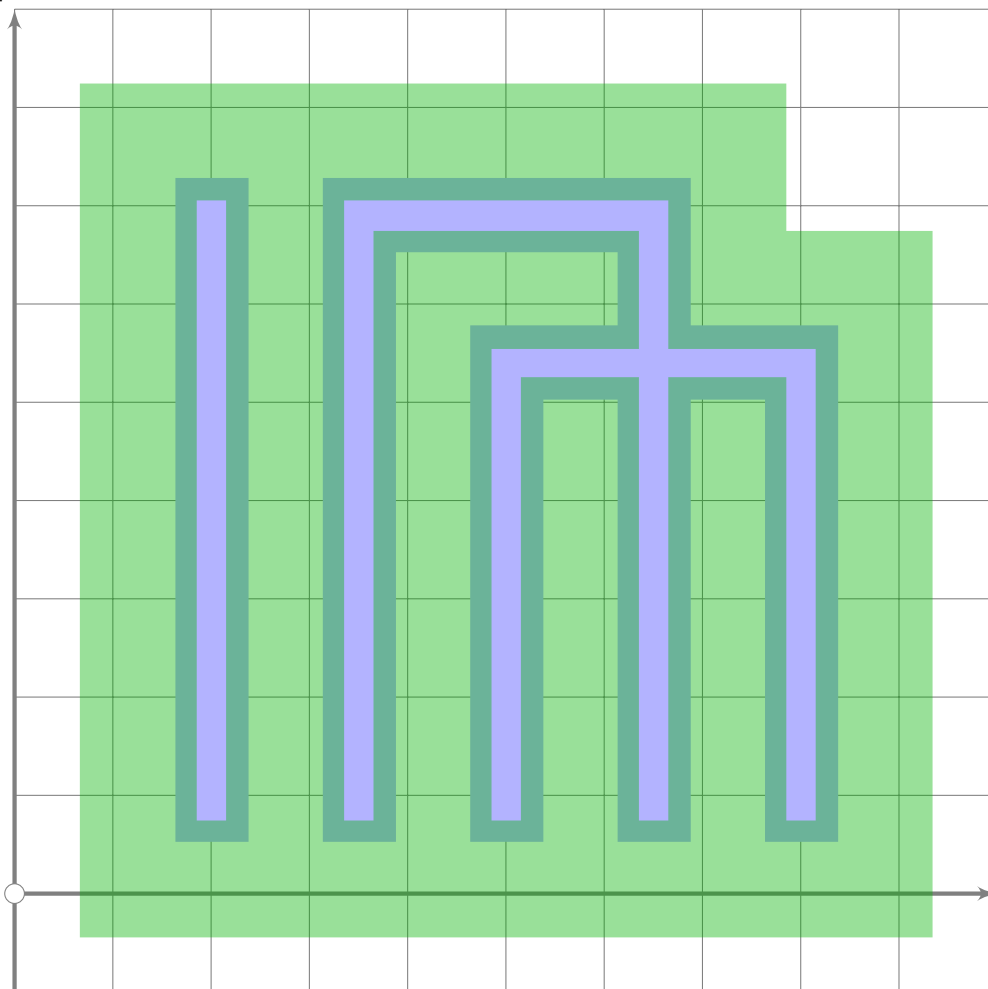


```
510 % #9 Aoi
511 beginsuglyph("genjimon09";201);
512   genjimon.aoi;
513 endsuglyph;
514
```

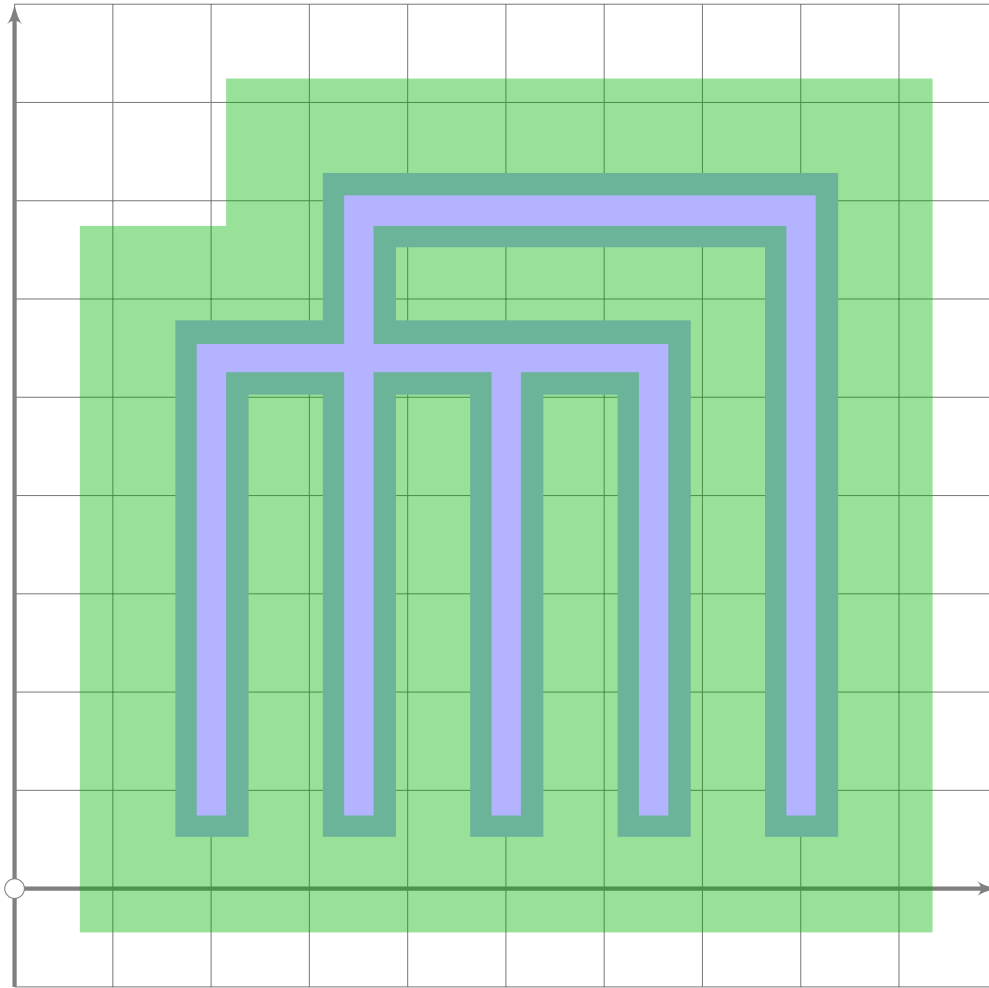


```
515 % #10 Sakaki
516 beginsuglyph("genjimon10";202);
517   genjimon.sakaki;
518 endsuglyph;
519
```

U+F17CB
tsuku.genjimon11

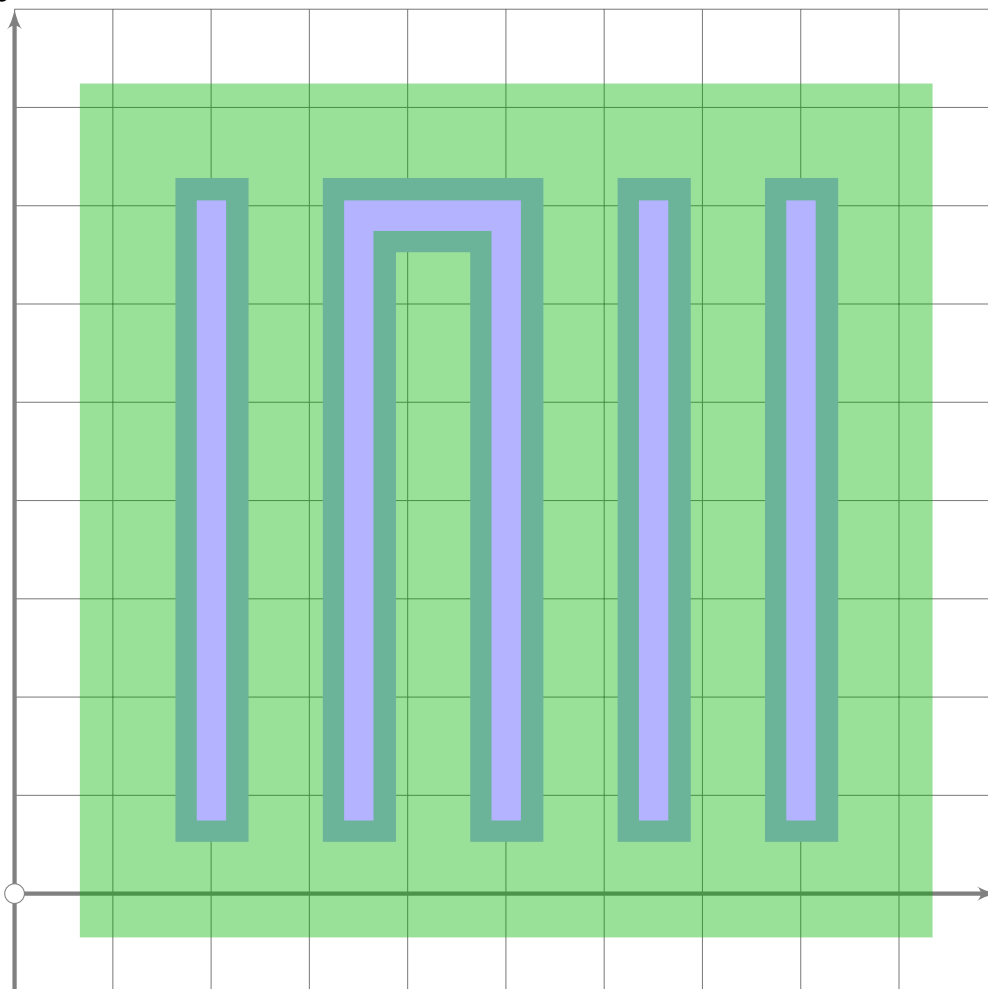


```
520 % #11 Hana Chiru Sato
521 begintsuglyph("genjimon11",203);
522   genjimon.hana_chiru_sato;
523 endtsuglyph;
524
```

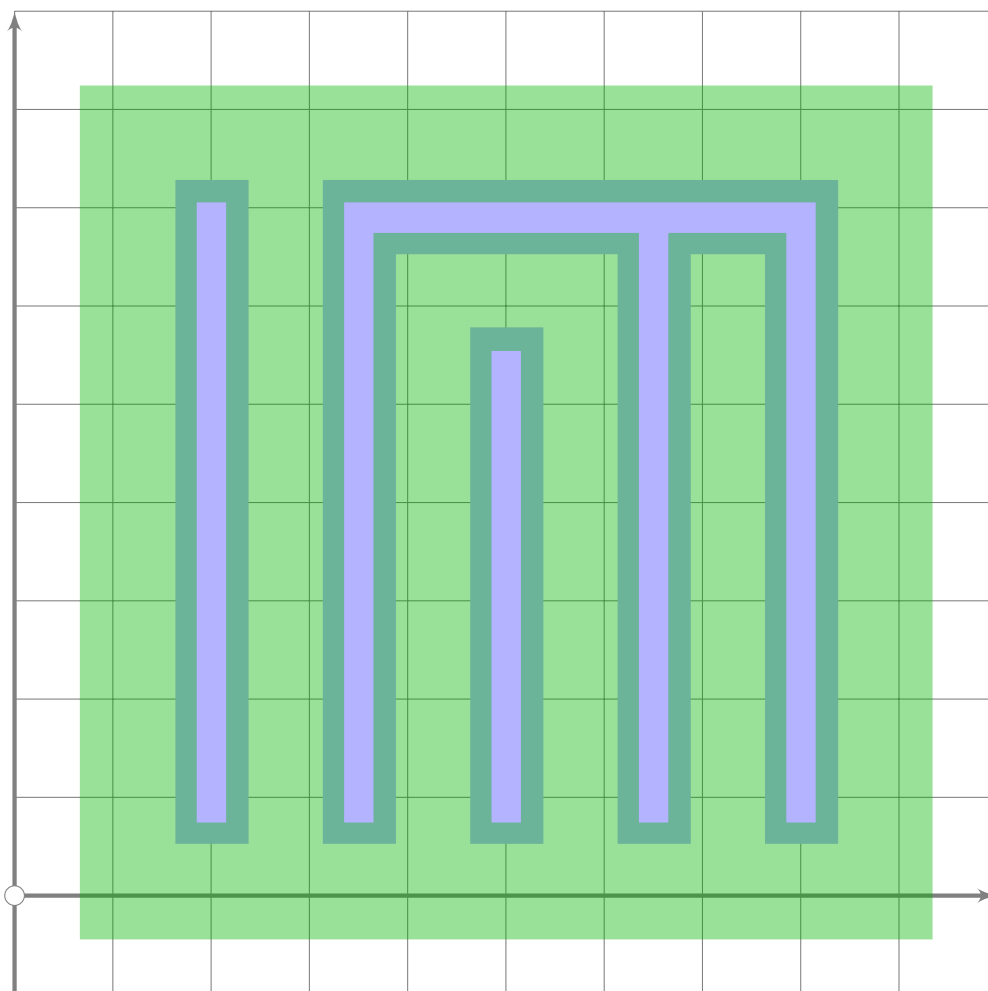


```
525 % #12 Suma
526 beginsuglyph("genjimon12";204);
527   genjimon.suma;
528 endsuglyph;
529
```

U+F17CD
tsuku.genjimon13

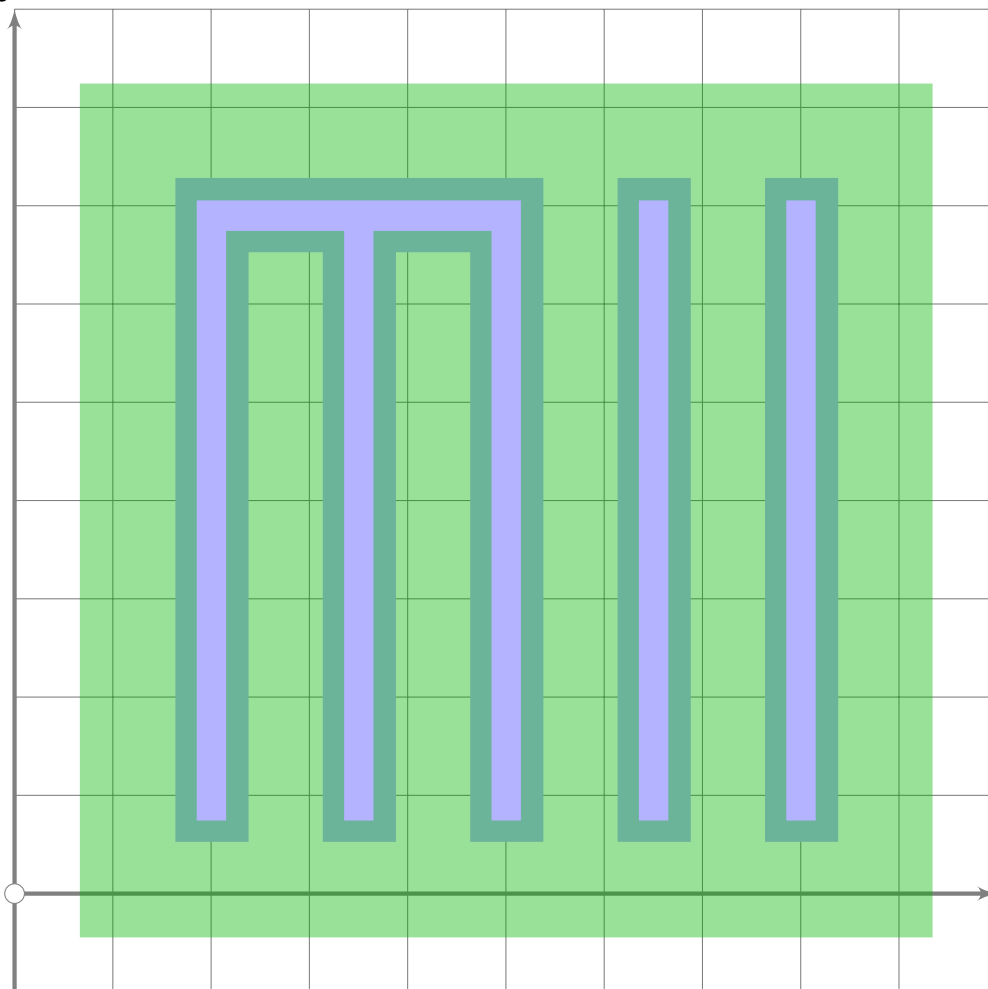


```
530 % #13 Akashi
531 begintsuglyph("genjimon13";205);
532   genjimon.akashi;
533 endtsuglyph;
534
```

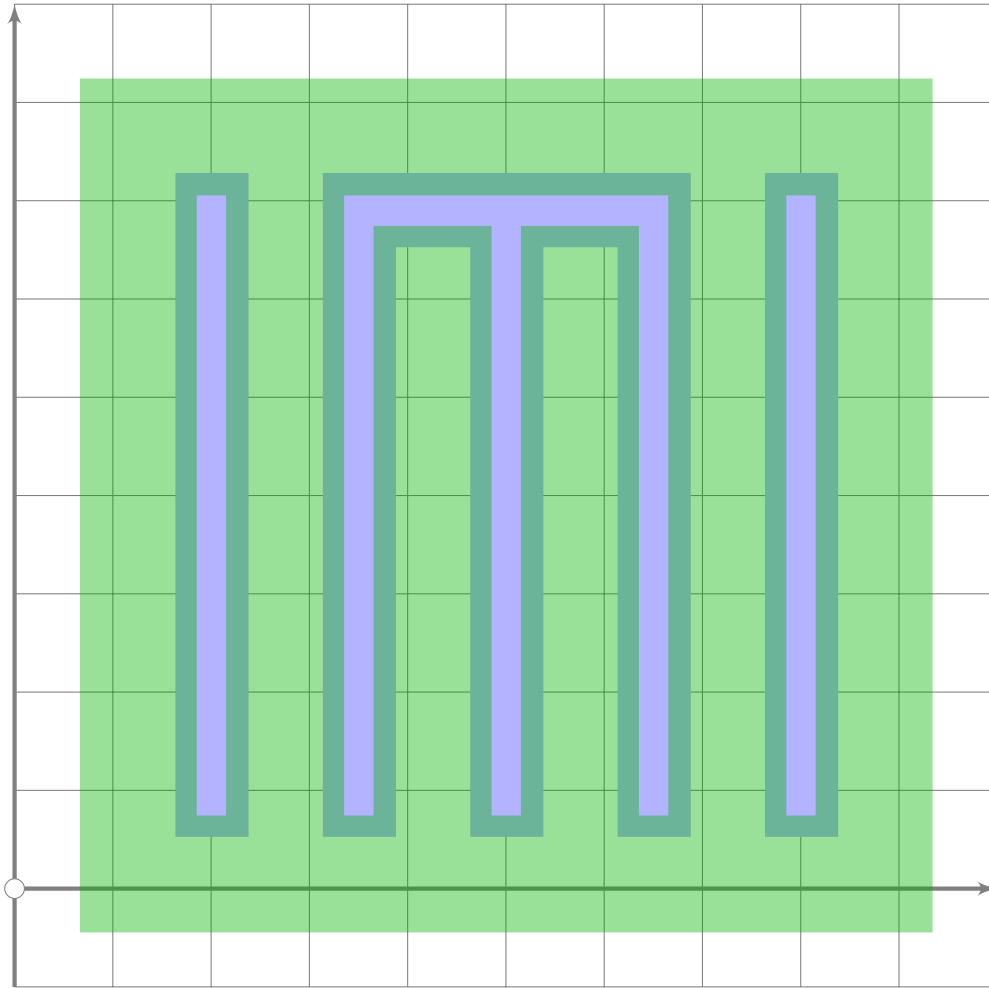


```
535 % #14 Miotsukushi
536 beginsuglyph("genjimon14";206);
537   genjimon.miotsukushi;
538 endsuglyph;
539
```


U+F17CF
tsuku.genjimon15

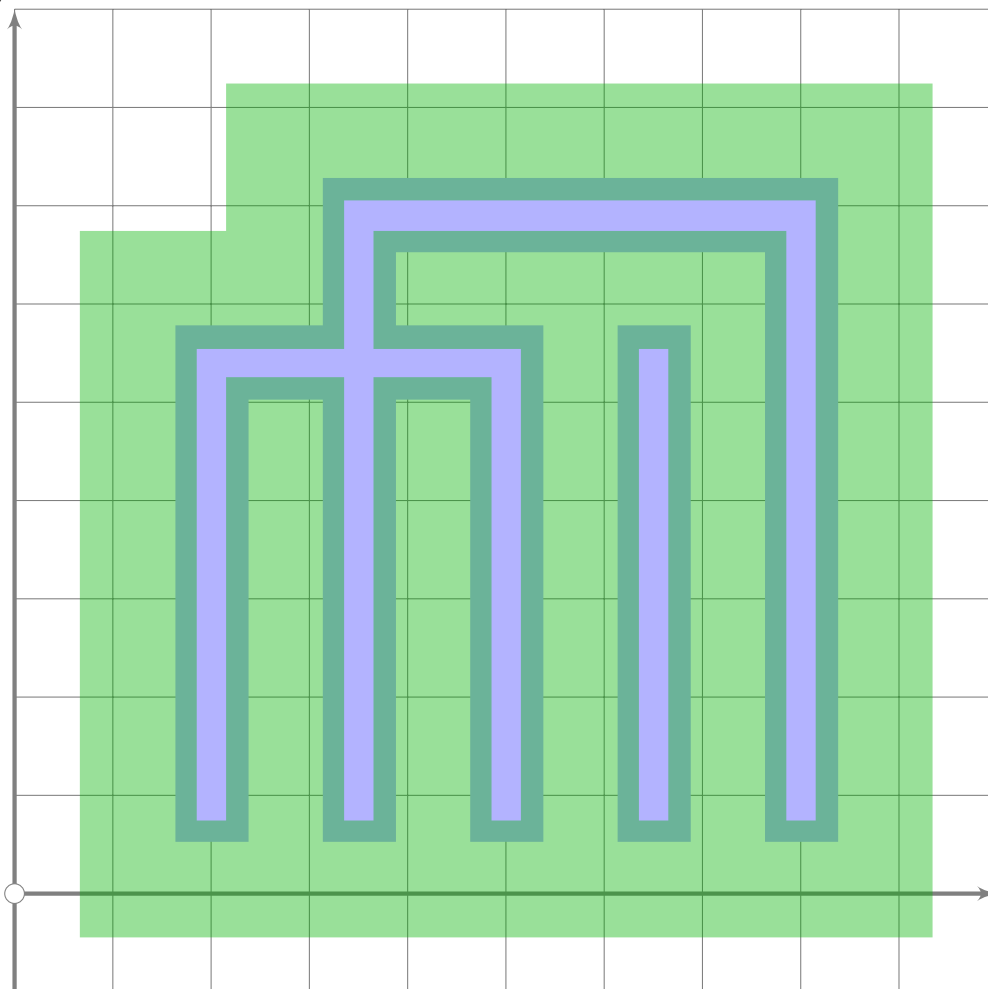


```
540 % #15 Yomogyuu
541 begintsuglyph("genjimon15";207);
542   genjimon.yomogyuu;
543 endtsuglyph;
544
```

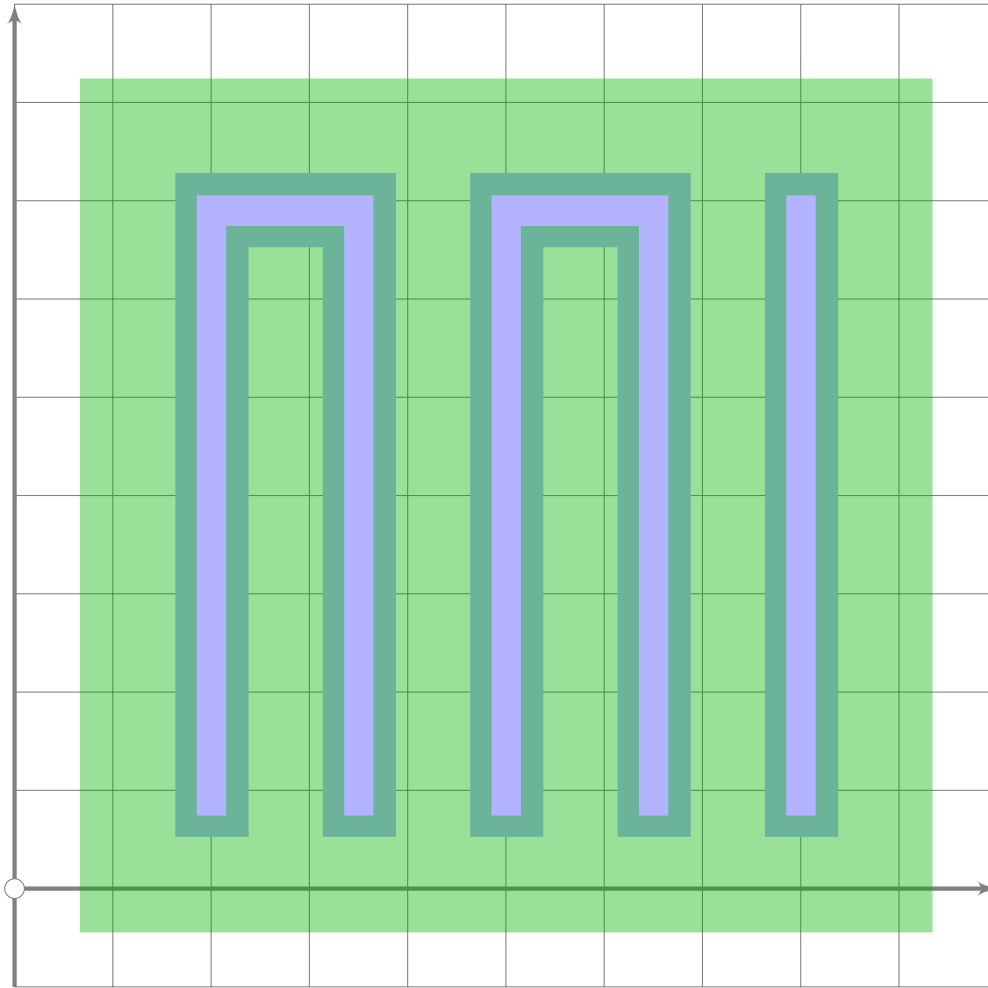


```
545 % #16 Sekiya
546 begintsuglyph("genjimon16";208);
547   genjimon.sekiya;
548 endtsuglyph;
549
```

U+F17D1
tsuku.genjimon17

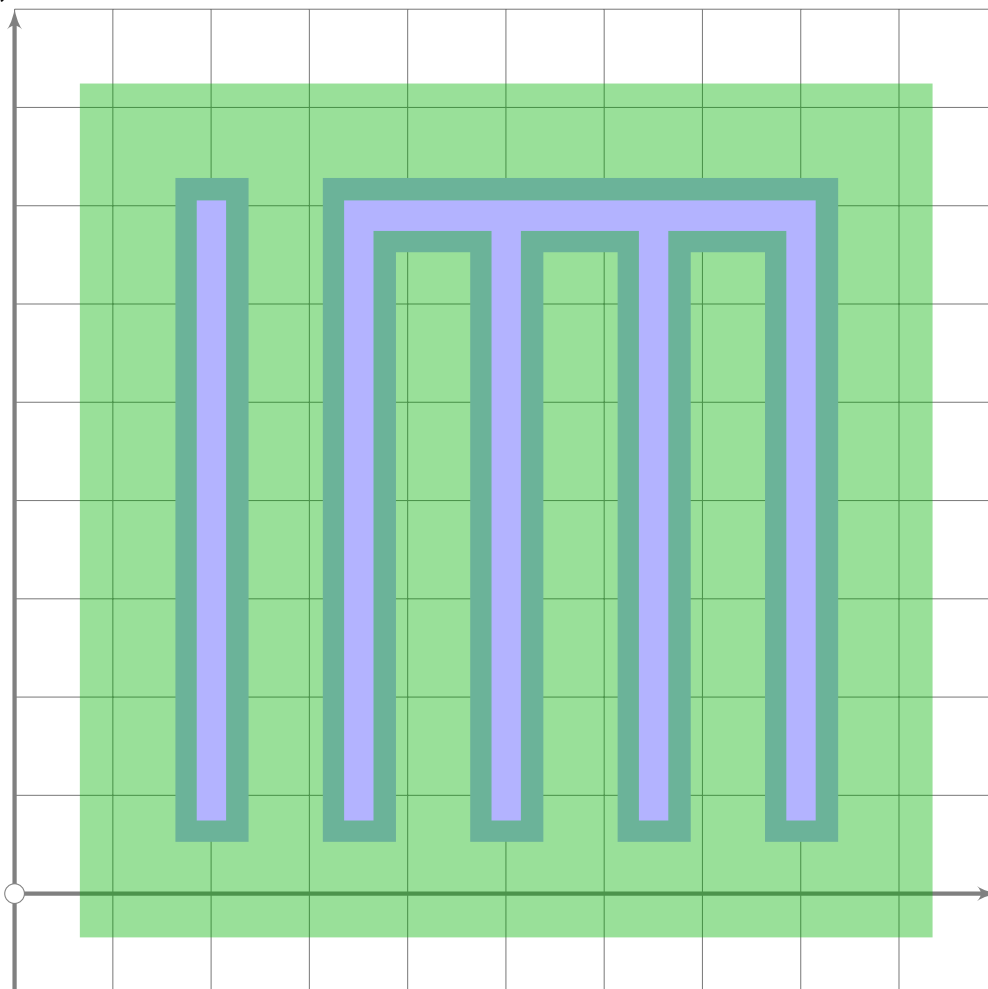


```
550 % #17 Eawase
551 beginsuglyph("genjimon17";209);
552   genjimon.eawase;
553 endtsuglyph;
554
```

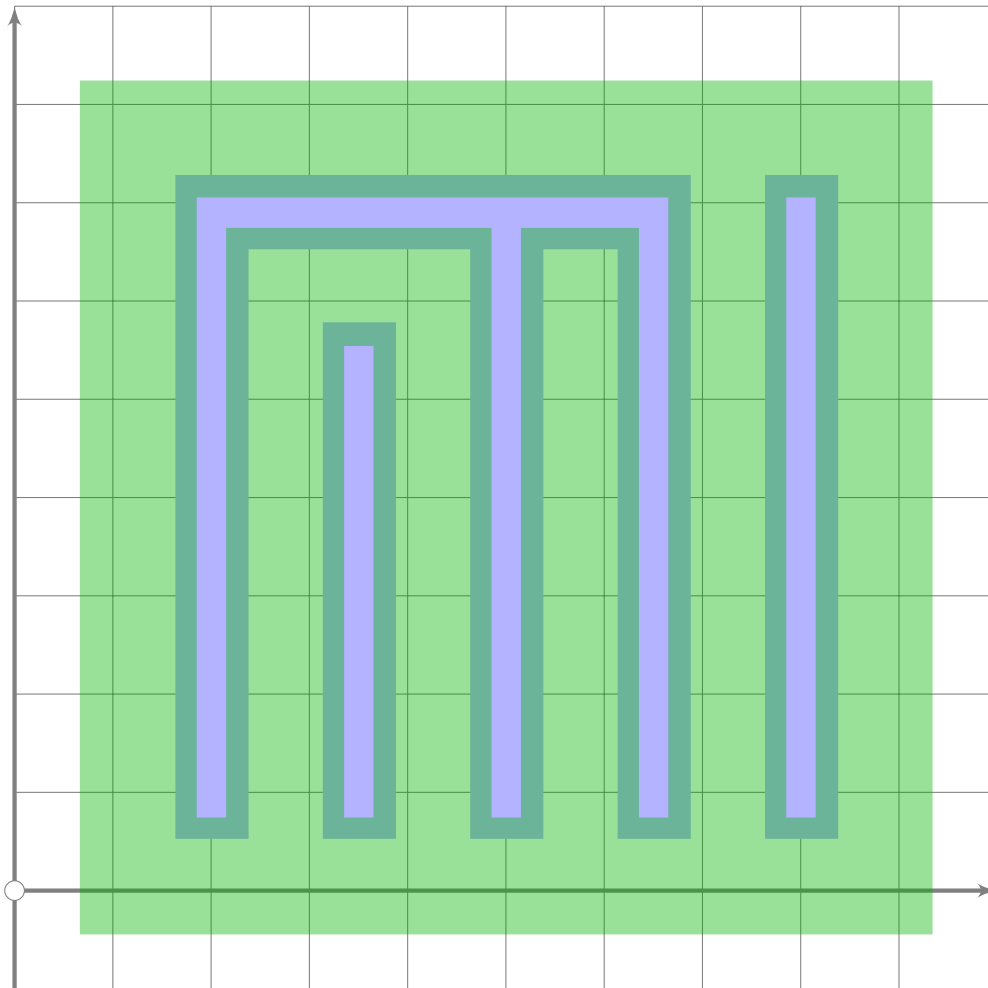


```
555 % #18 Matsukaze
556 beginsuglyph("genjimon18";210);
557   genjimon.matsukaze;
558 endsuglyph;
559
```

U+F17D3
tsuku.genjimon19

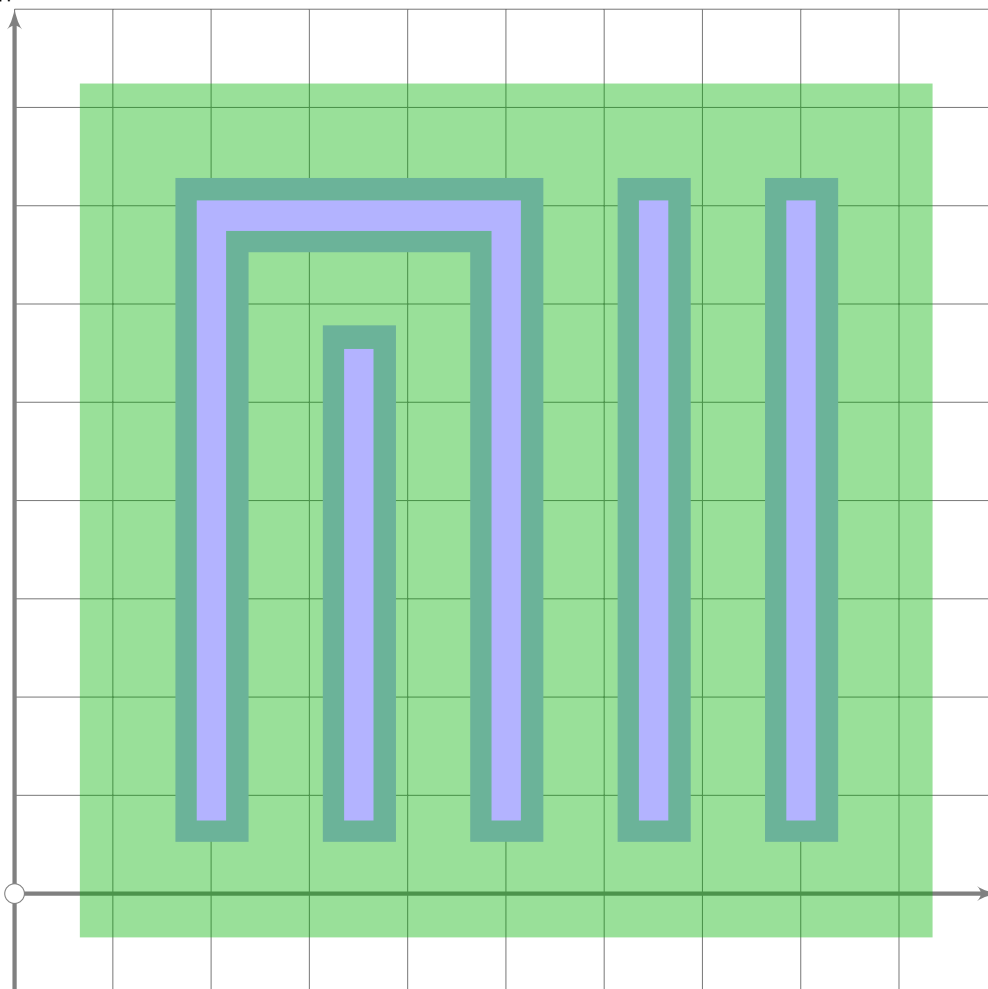


```
560 % #19 Usugumo
561 begintsuglyph("genjimon19";211);
562   genjimon.usugumo;
563 endtsuglyph;
564
```

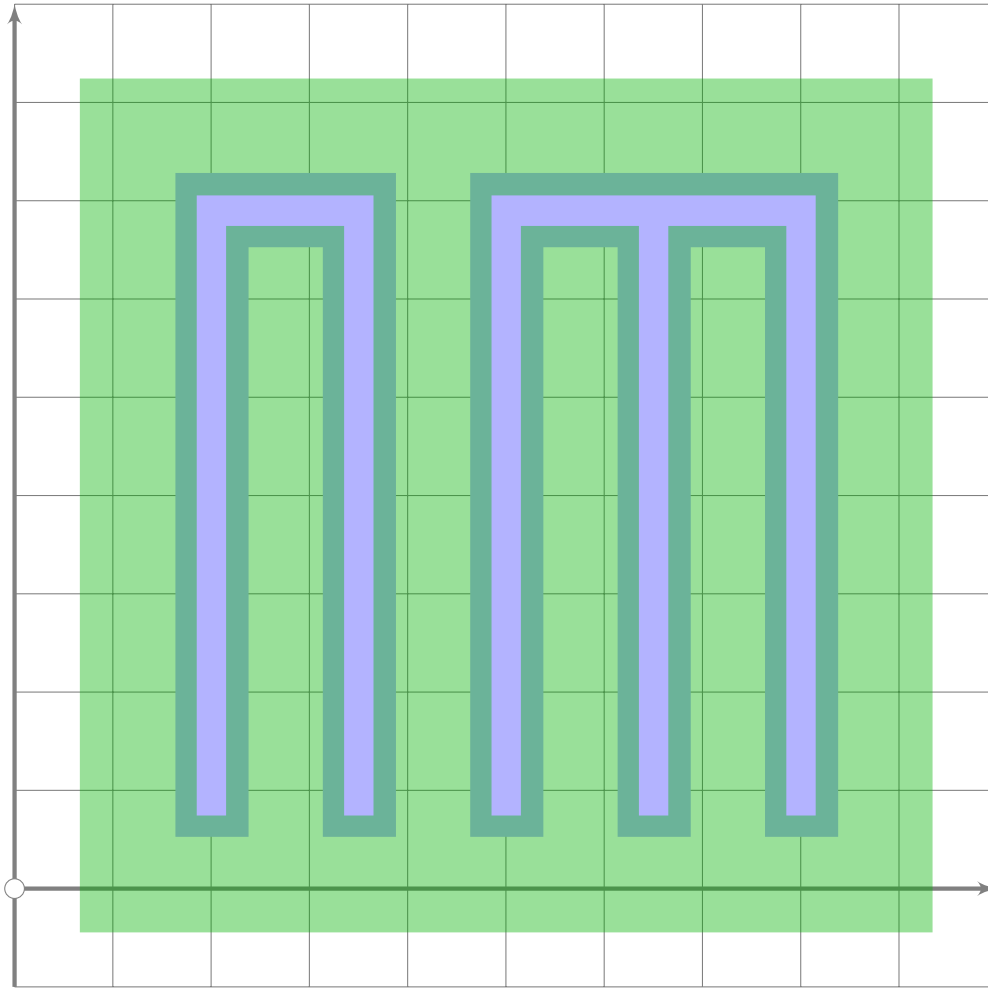


```
565 % #20 Asagao
566 begint Suglyph("genjimon20";212);
567   genjimon.asagao;
568 endtsuglyph;
569
```

U+F17D5
tsuku.genjimon21

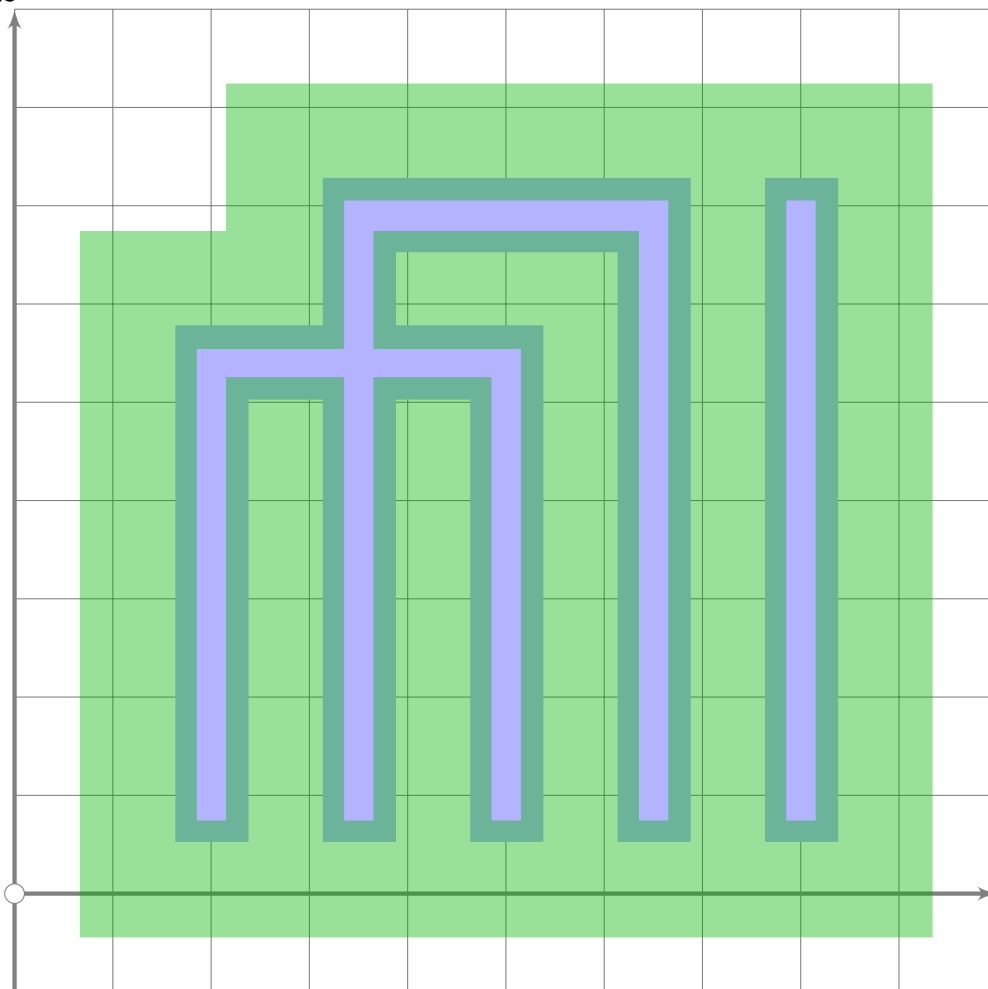


```
570 % #21 Otome
571 beginsuglyph("genjimon21";213);
572   genjimon.otome;
573 endsuglyph;
574
```

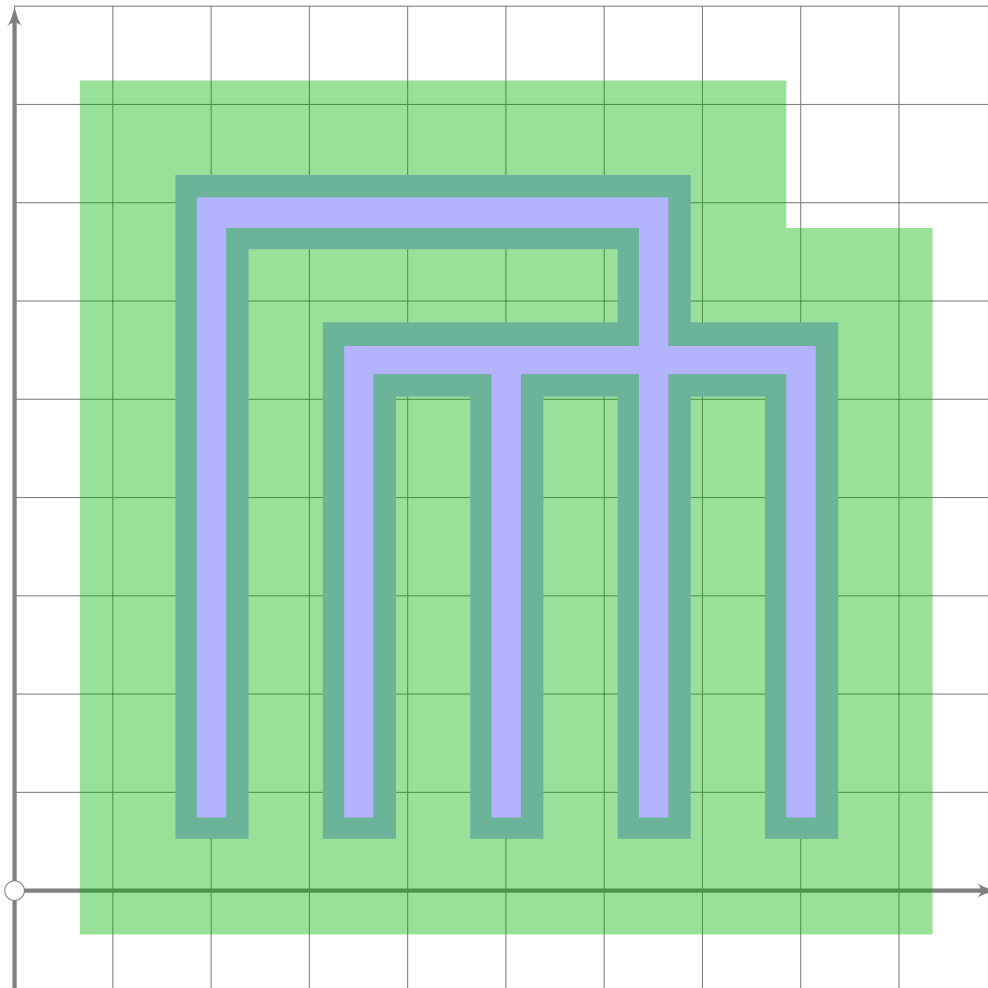


```
575 % #22 Tamakazura
576 beginsuglyph("genjimon22",214);
577   genjimon.tamakazura;
578 endsuglyph;
579
```


U+F17D7
tsuku.genjimon23

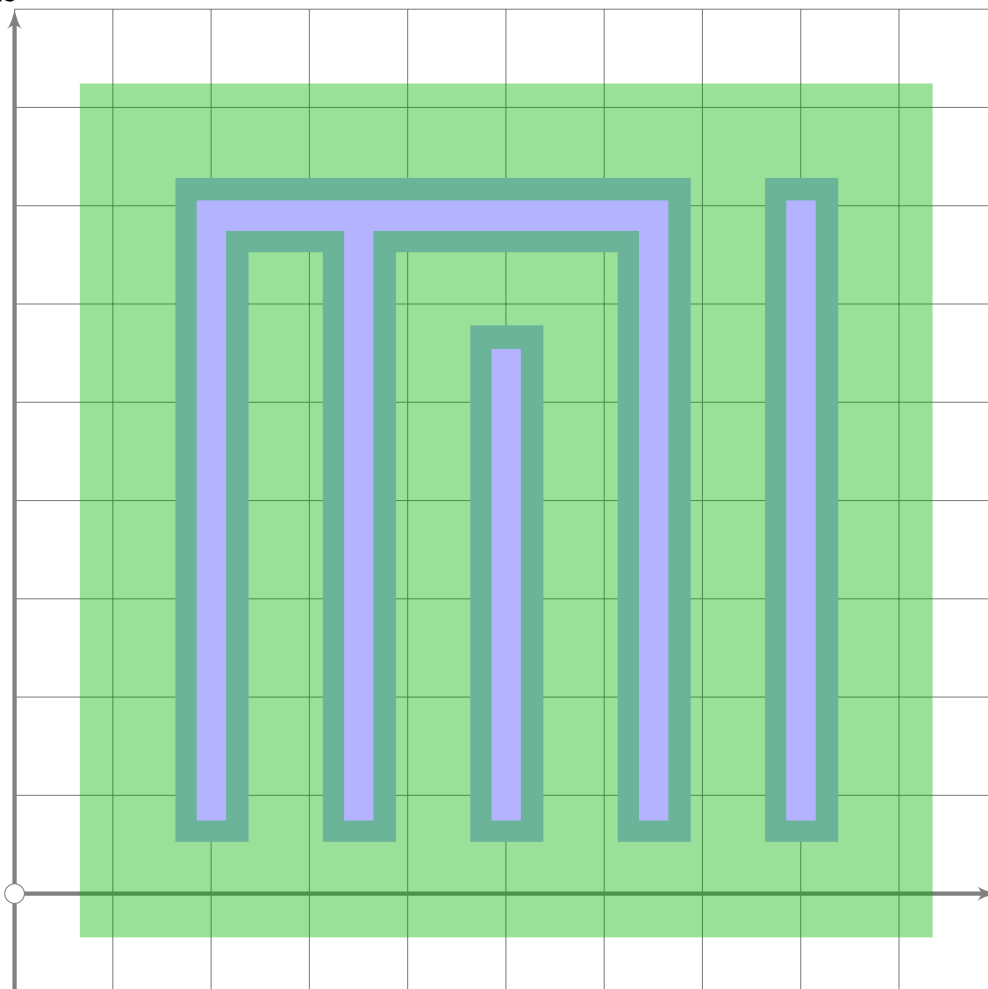


```
580 % #23 Hatsune
581 begintsuglyph("genjimon23",215);
582   genjimon.hatsune;
583 endtsuglyph;
584
```

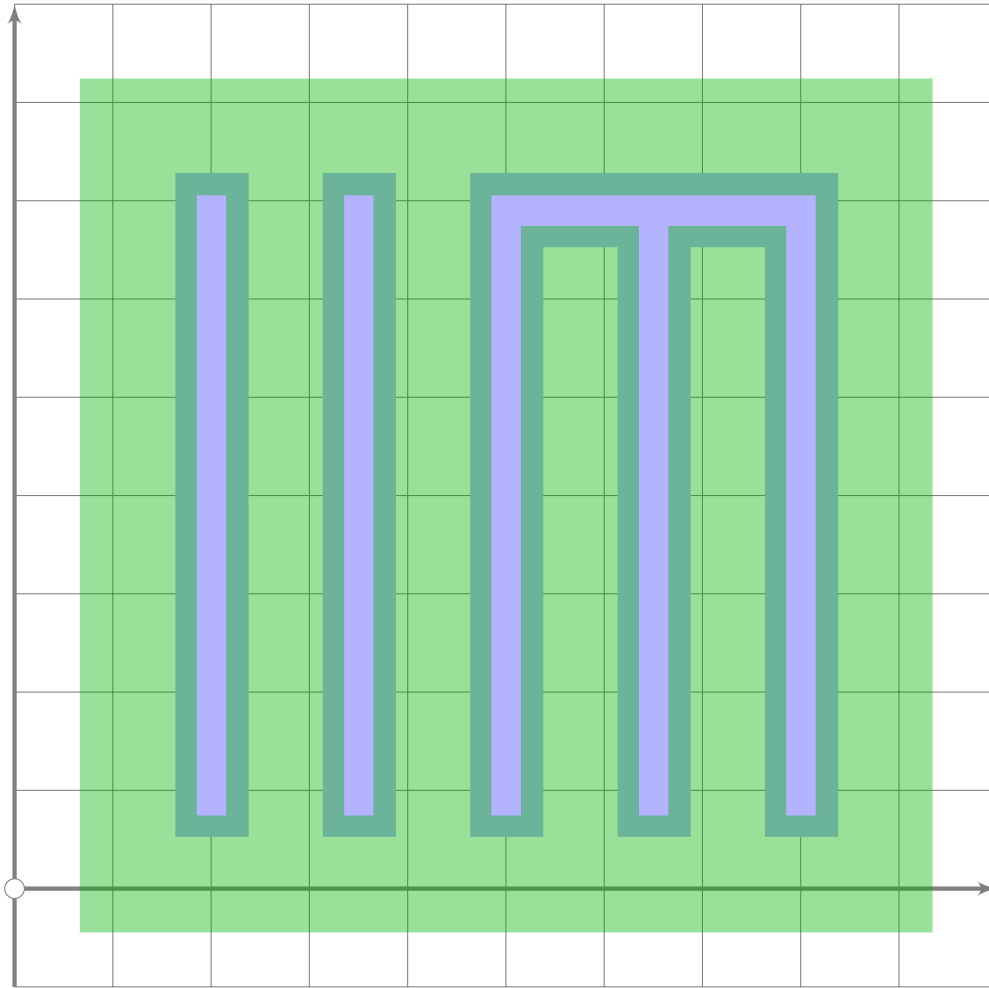


```
585 % #24 Kochou
586 begint Suglyph("genjimon24";216);
587   genjimon.kochou;
588 endts Suglyph;
589
```

U+F17D9
tsuku.genjimon25

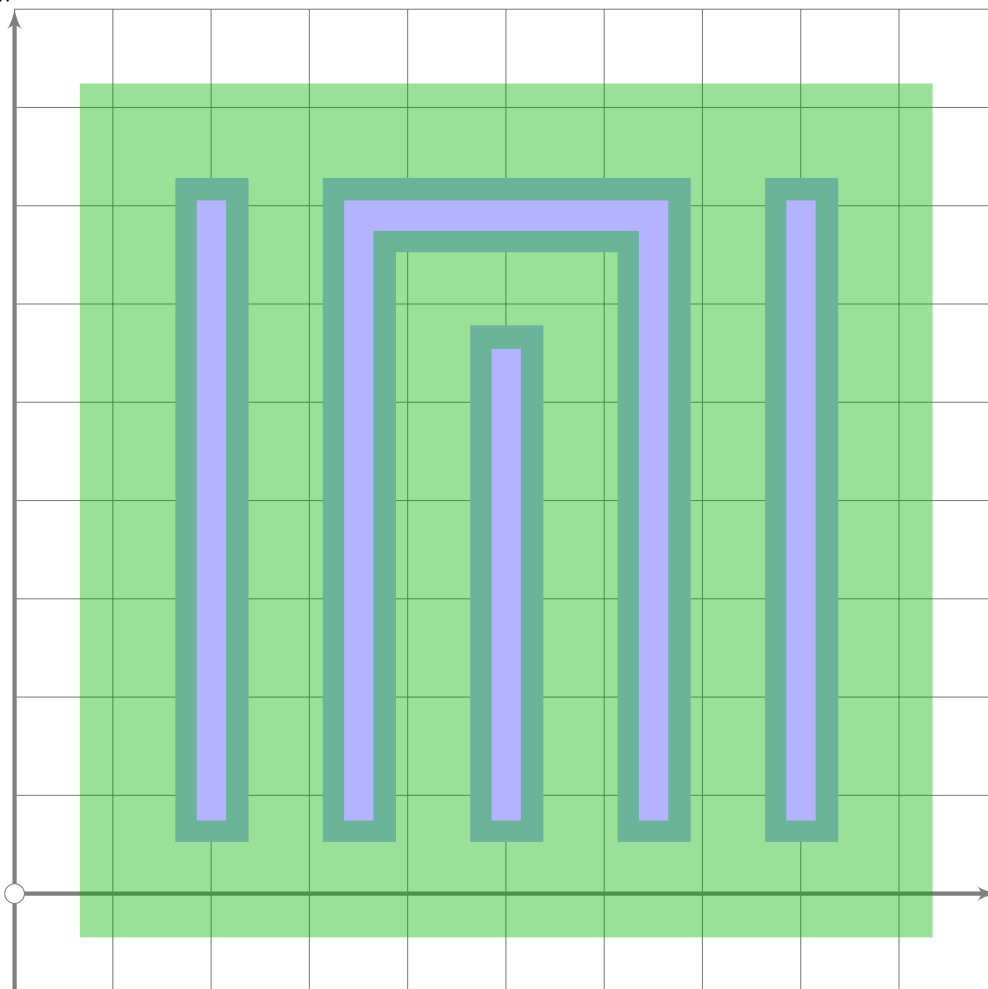


```
590 % #25 Hotaru
591 begintsuglyph("genjimon25",217);
592   genjimon.hotaru;
593 endtsuglyph;
594
```

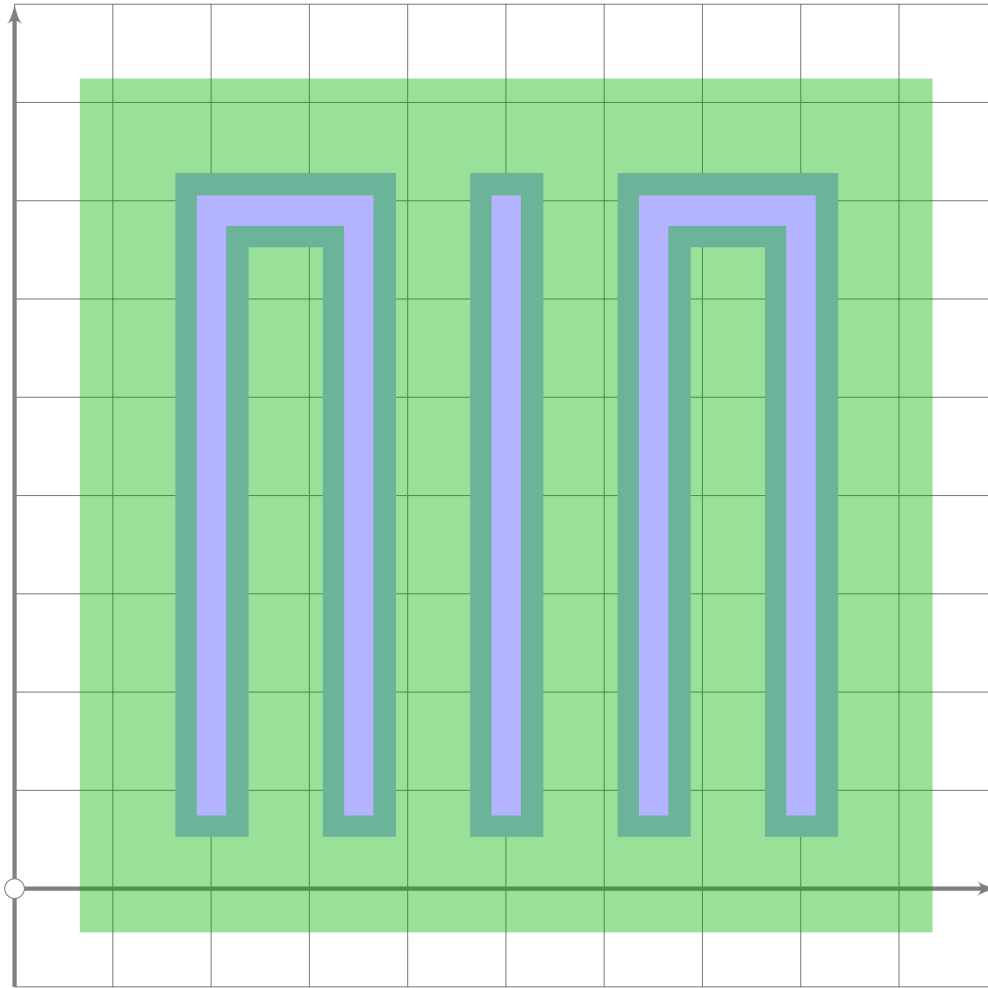


```
595 % #26 Tokonatsu
596 beginsuglyph("genjimon26";218);
597   genjimon.tokonatsu;
598 endsuglyph;
599
```

U+F17DB
tsuku.genjimon27

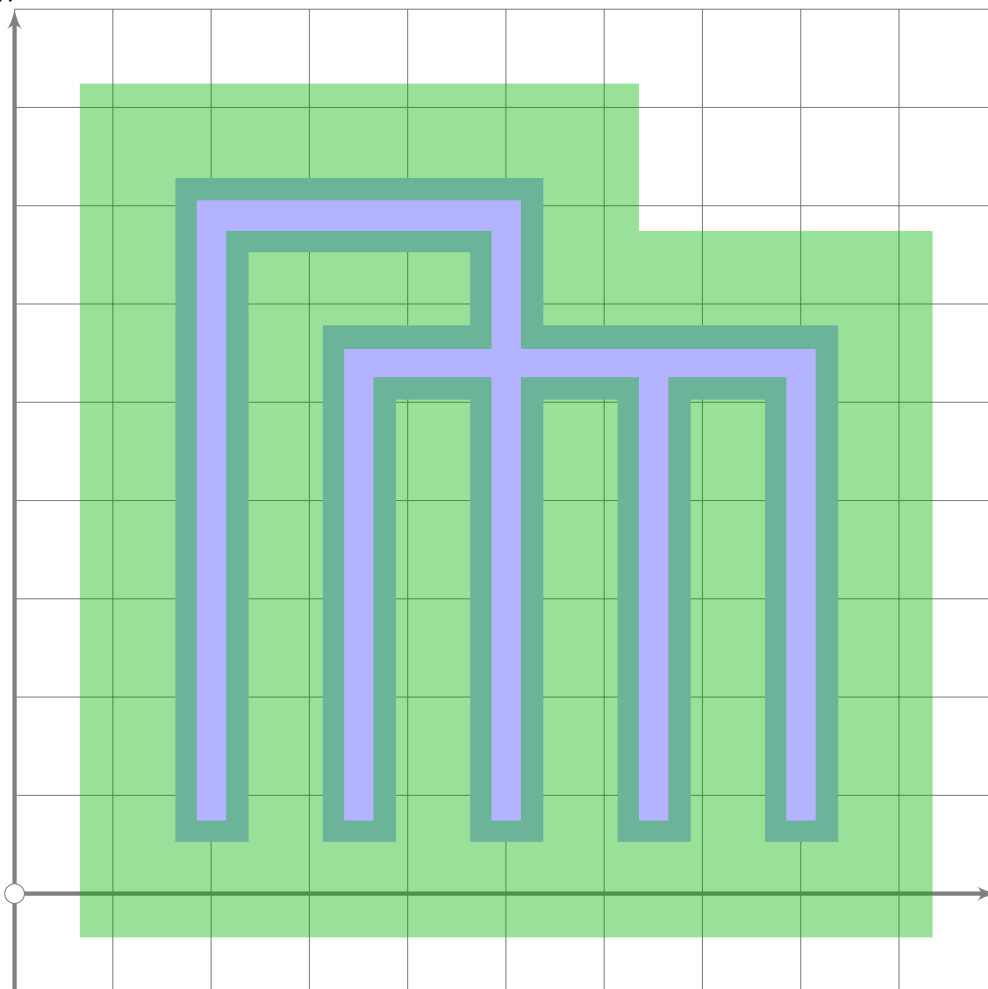


```
600 % #27 Kagaribi
601 begintsuglyph("genjimon27",219);
602   genjimon.kagaribi;
603 endtsuglyph;
604
```

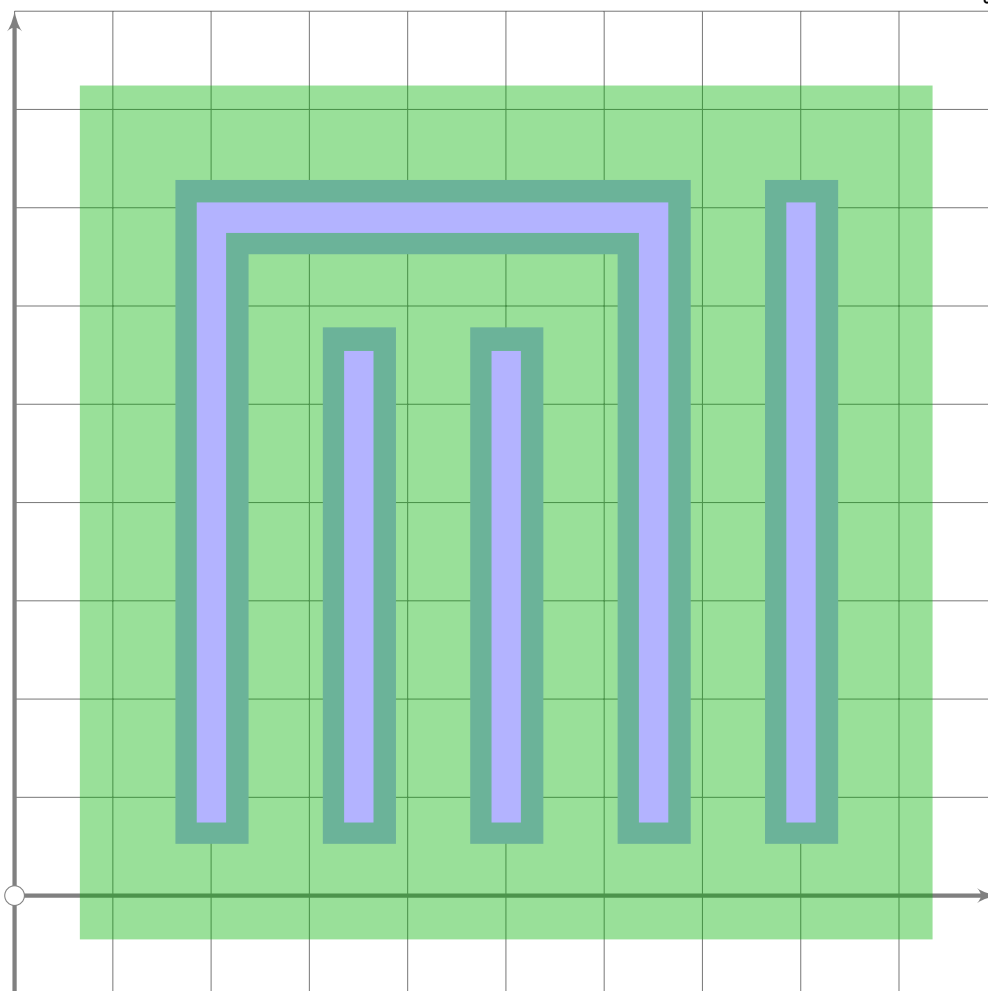


```
605 % #28 Nowaki
606 beginsuglyph("genjimon28",220);
607   genjimon.nowaki;
608 endsuglyph;
609
```

U+F17DD
tsuku.genjimon29

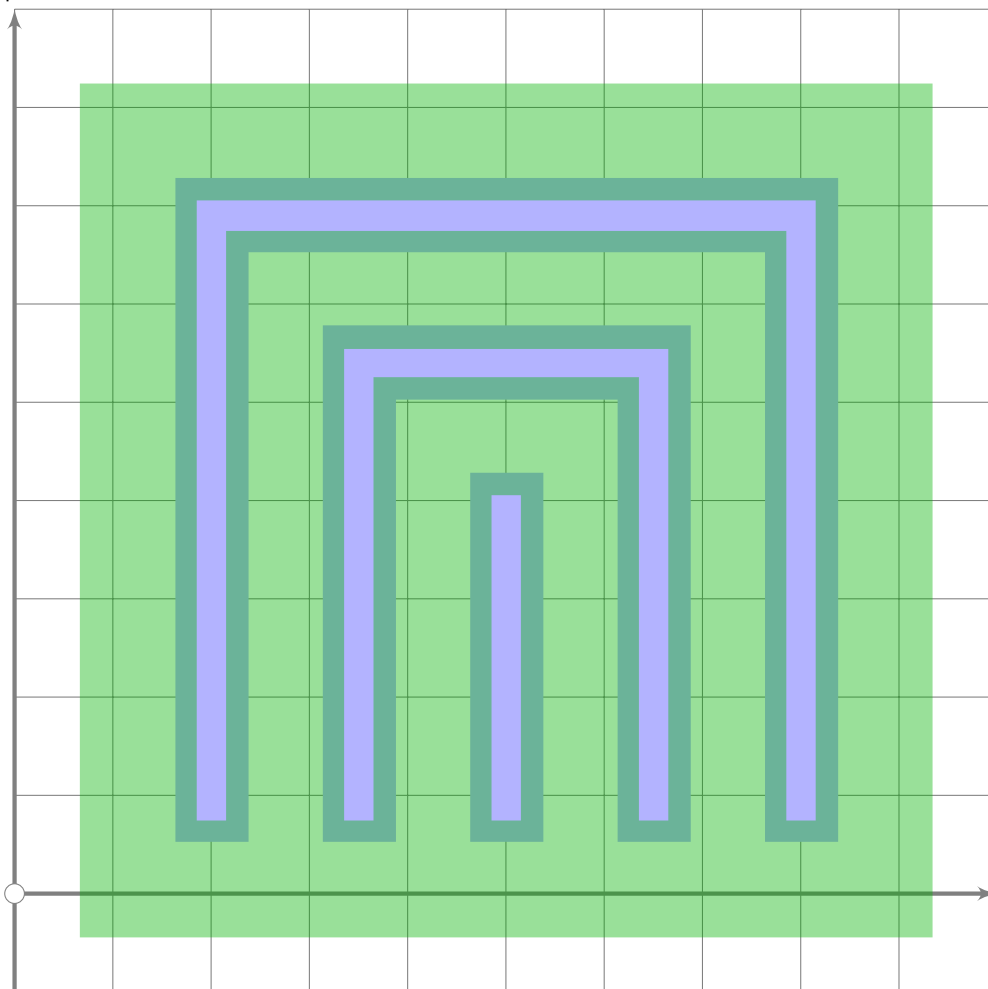


```
610 % #29 Miyuki
611 begintsuglyph("genjimon29",221);
612   genjimon.miyuki;
613 endtsuglyph;
614
```

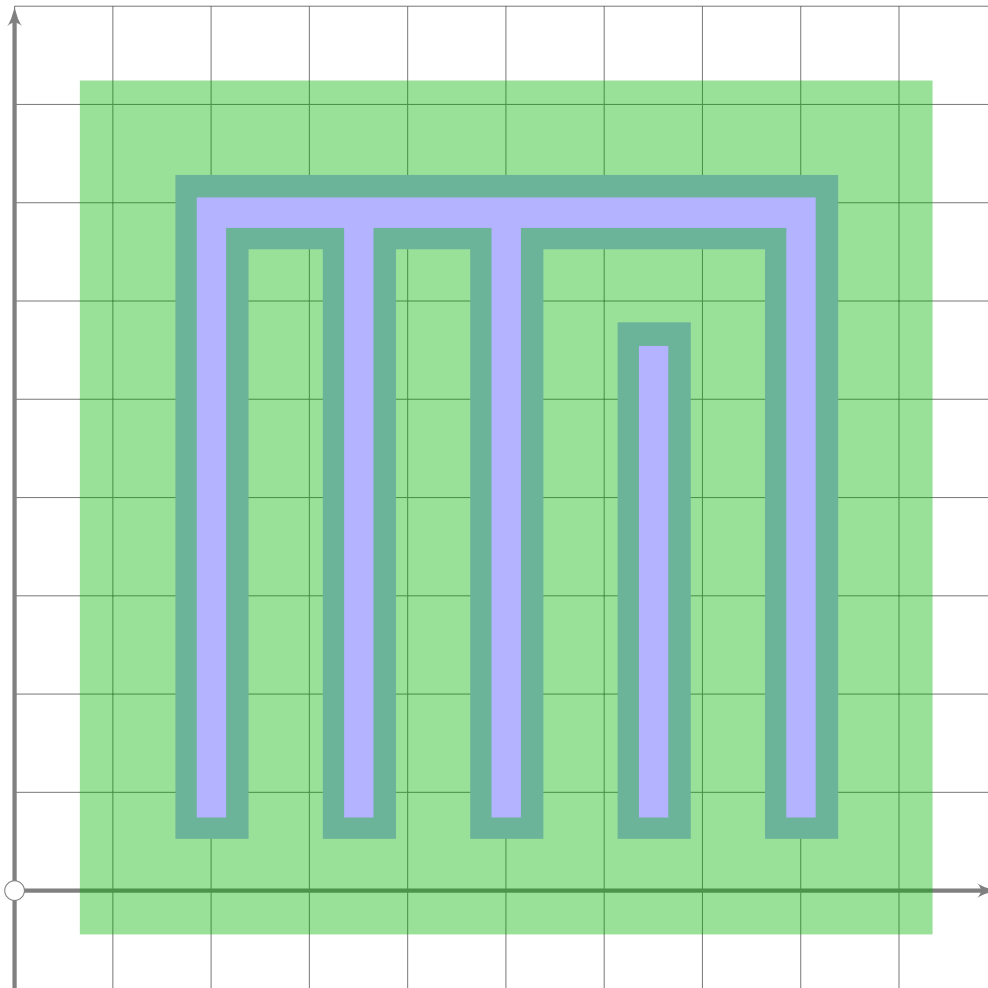


```
615 % #30 Fujibakama
616 begintsuglyph("genjimon30",222);
617   genjimon.fujibakama;
618 endtsuglyph;
619
```


U+F17DF
tsuku.genjimon31

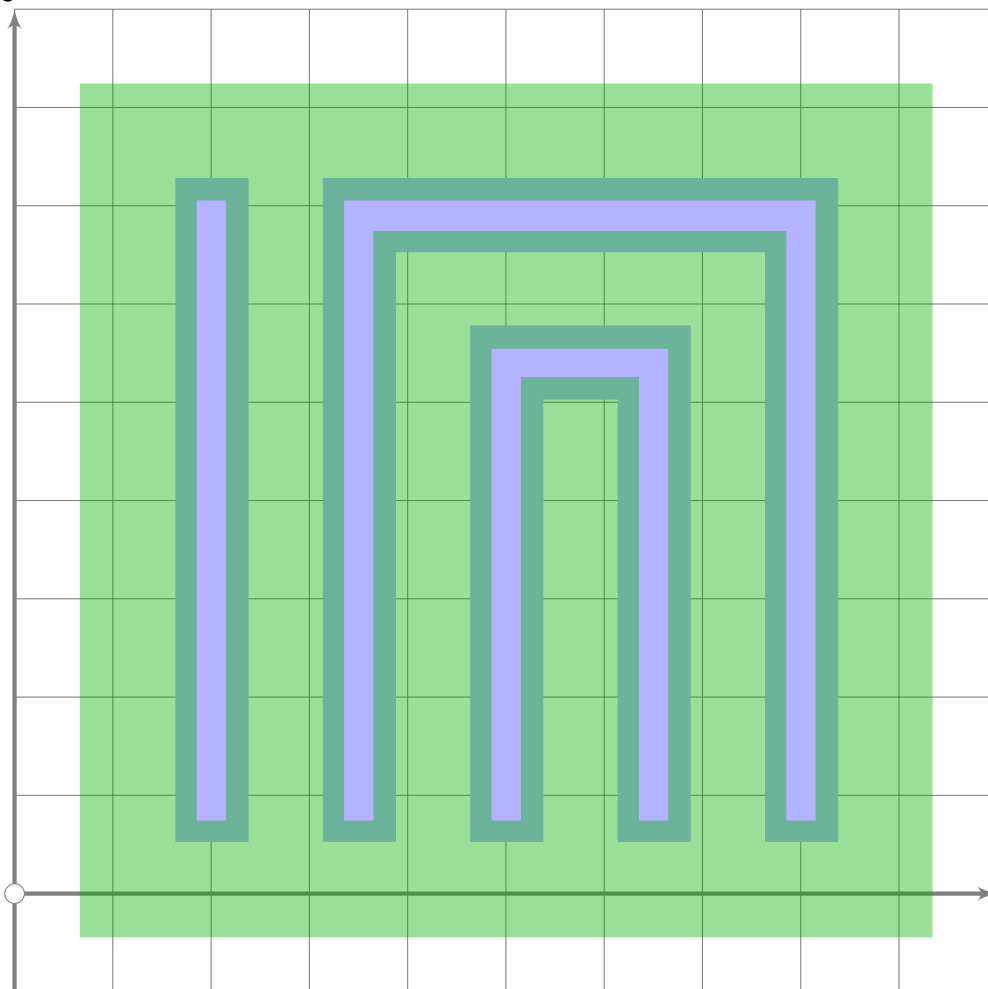


```
620 % #31 Makibashira
621 begintsuglyph("genjimon31";223);
622   genjimon.makibashira;
623 endtsuglyph;
624
```

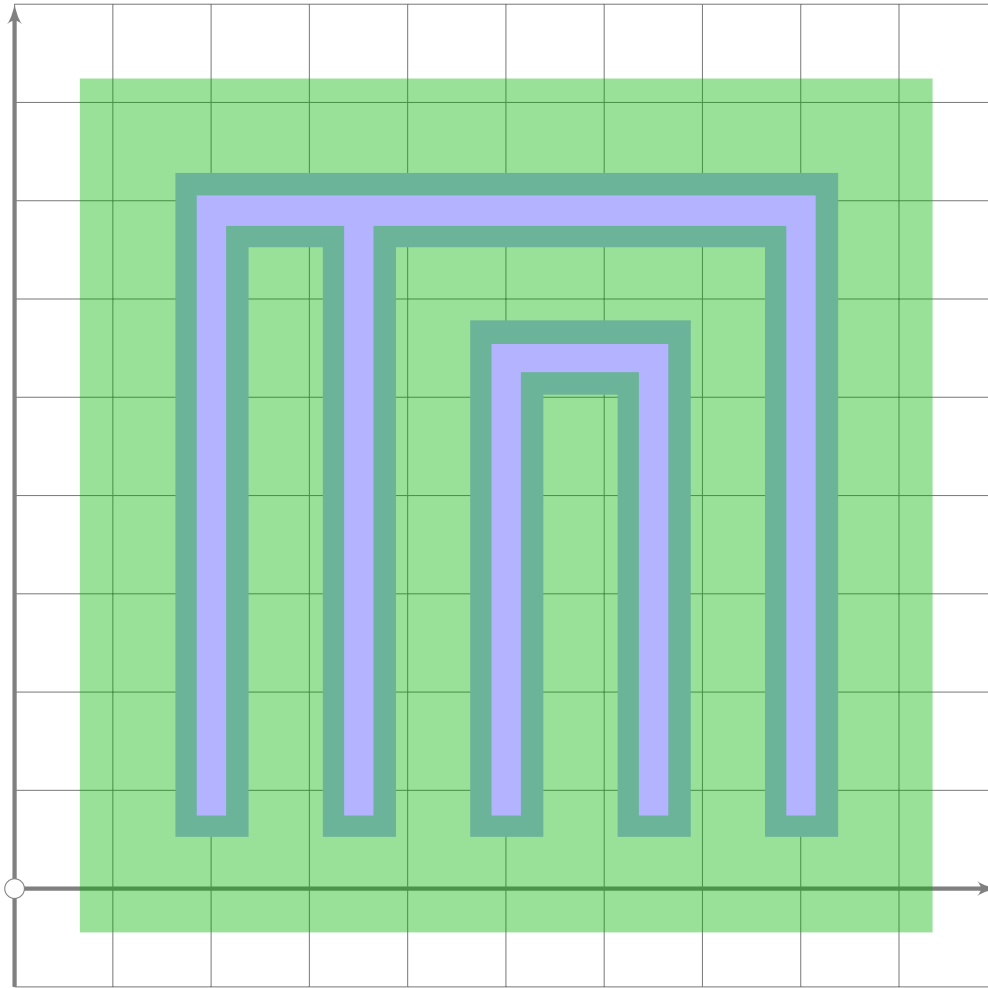


```
625 % #32 Umegae
626 begint Suglyph("genjimon32",224);
627   genjimon.umegae;
628 endts Suglyph;
629
```

U+F17E1
tsuku.genjimon33

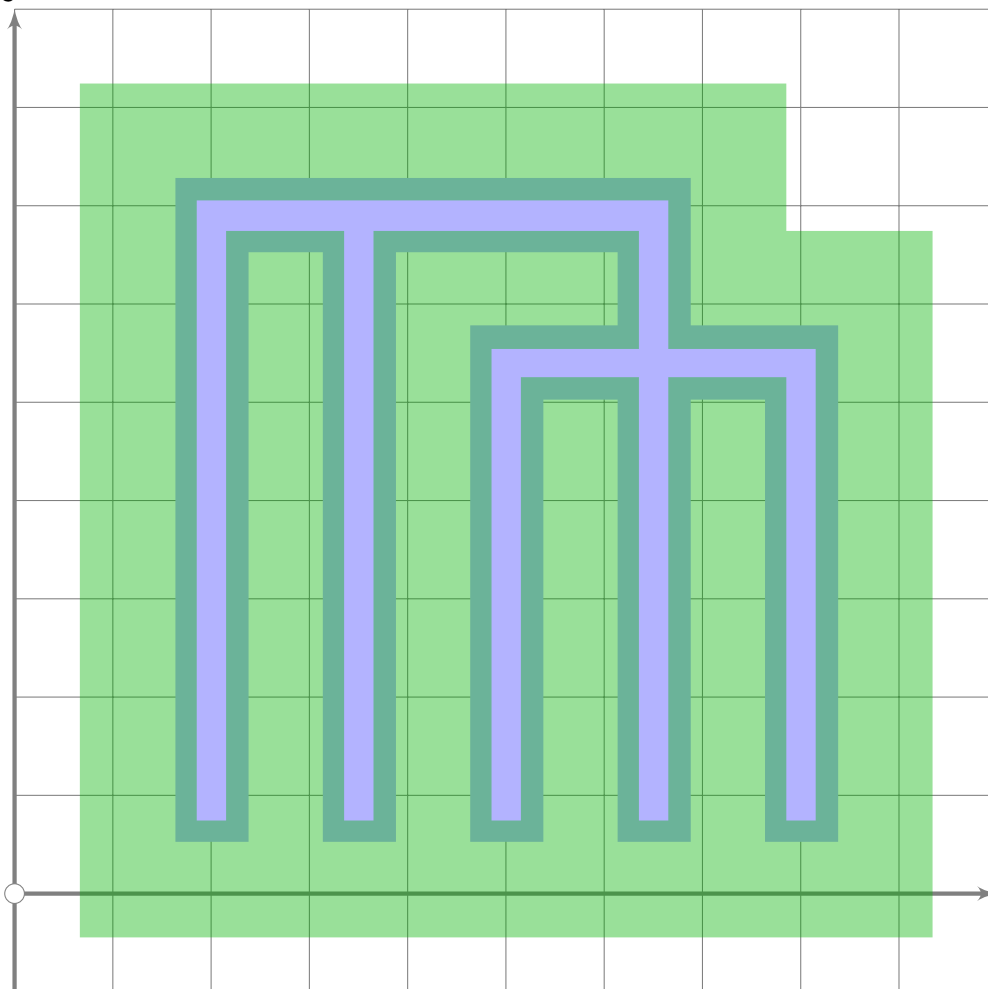


```
630 % #33 Fuji no Uraba
631 begintsuglyph("genjimon33";225);
632   genjimon.fuji_no_uraba;
633 endtsuglyph;
634
```

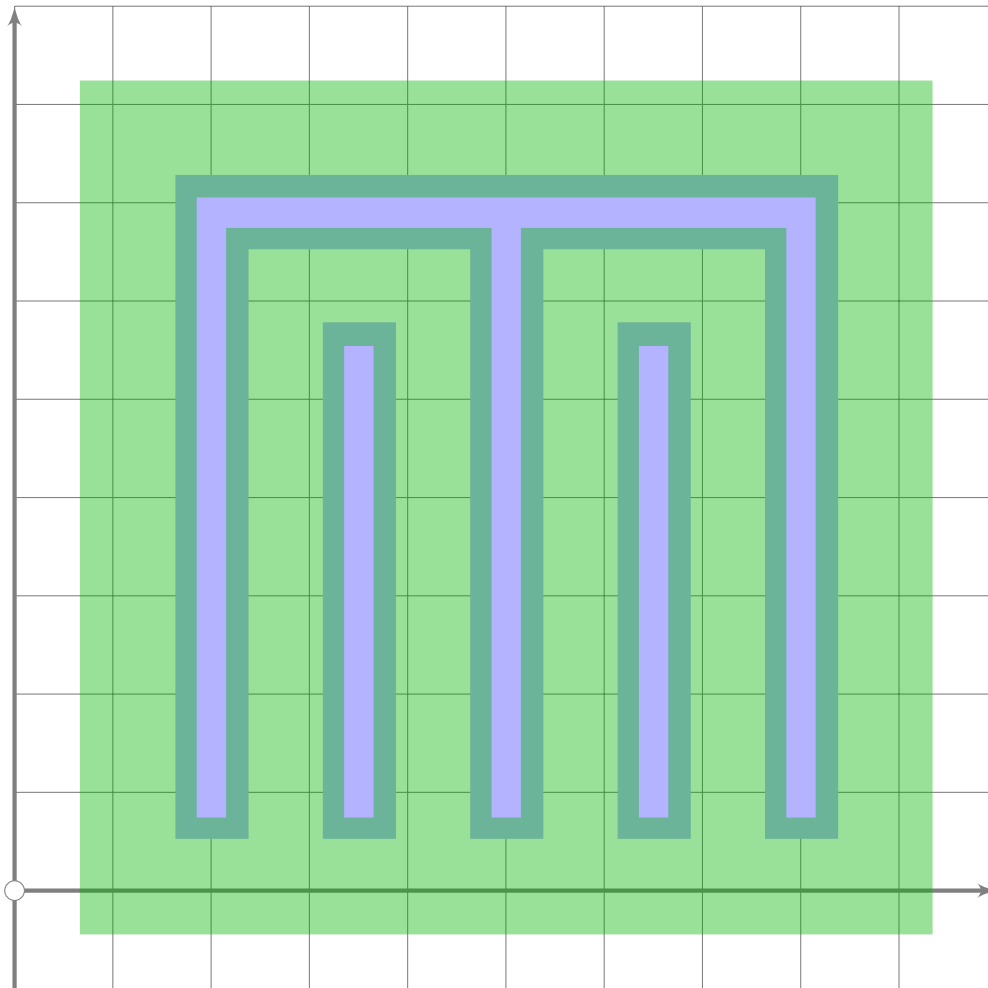


```
635 % #34 Wakana no Jou
636 begintsuglyph("genjimon34";226);
637   genjimon.wakana_no_jou;
638 endtsuglyph;
639
```

U+F17E3
tsuku.genjimon35

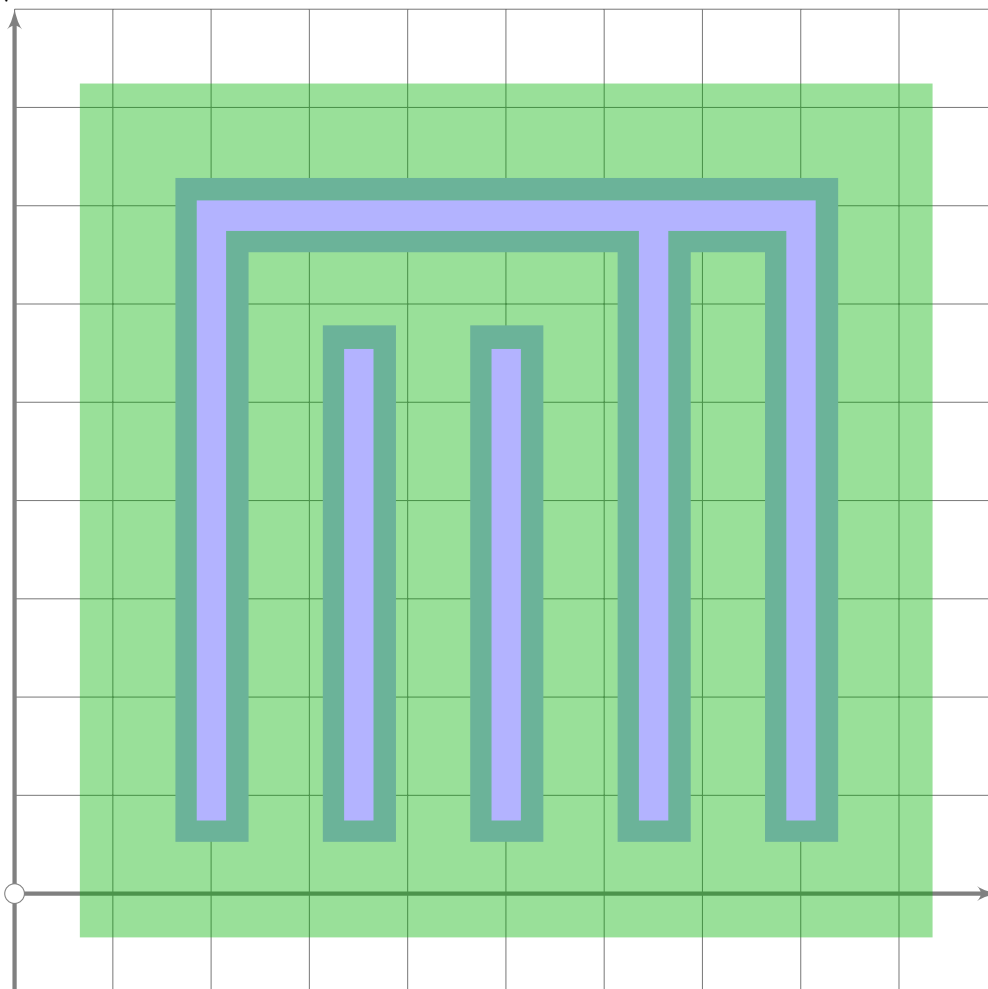


```
640 % #35 Wakana no Ge
641 begintsuglyph("genjimon35";227);
642   genjimon.wakana_no_ge;
643 endtsuglyph;
644
```



```
645 % #36 Kashiwagi
646 begint Suglyph("genjimon36",228);
647   genjimon.kashiwagi;
648 endts Suglyph;
649
```

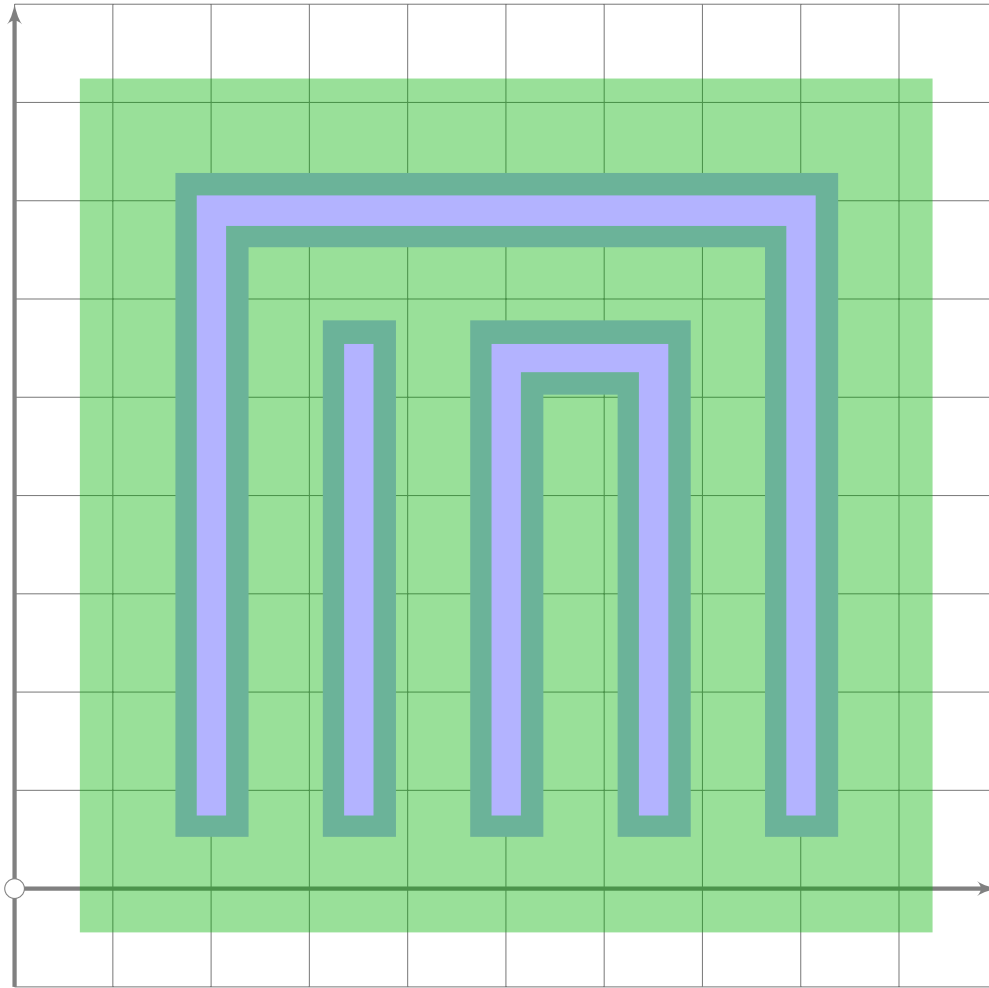
U+F17E5
tsuku.genjimon37



```

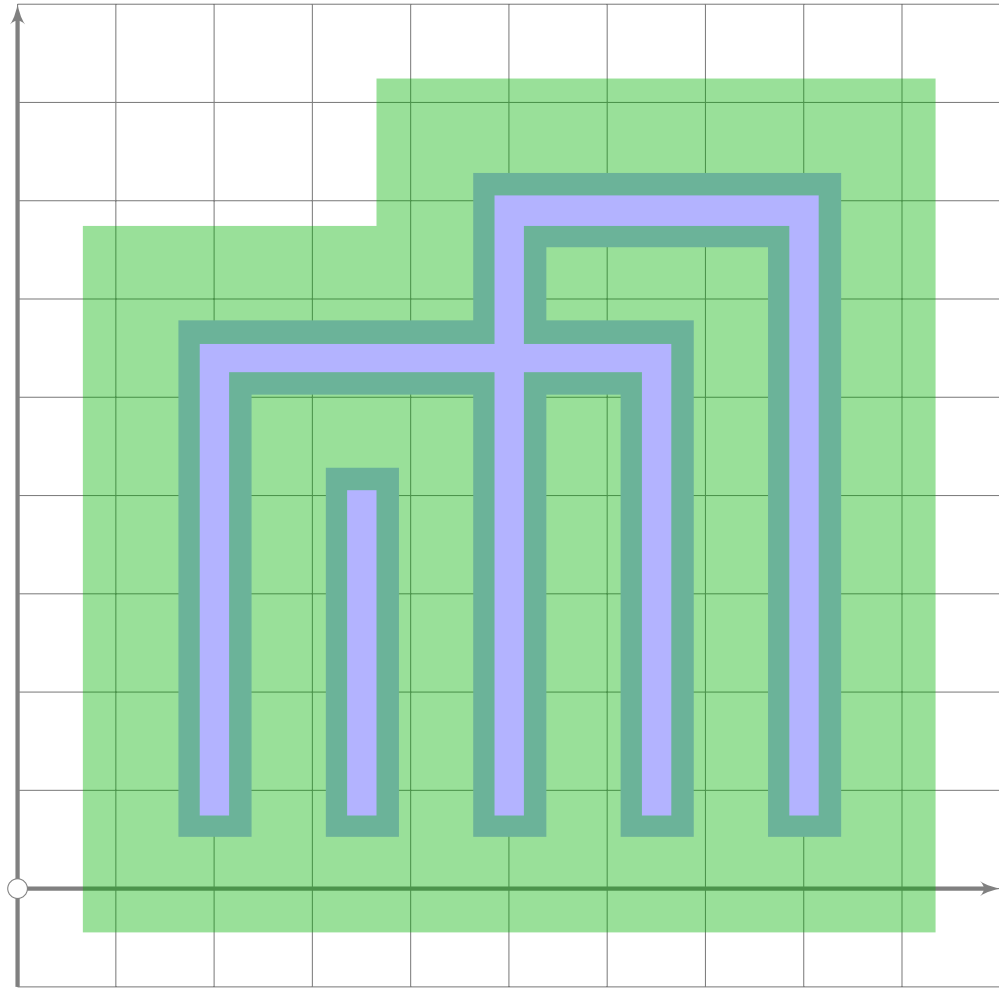
650 % #37 Yokobue
651 begint Suglyph("genjimon37";229);
652   genjimon.yokobue;
653 endts Suglyph;
654

```

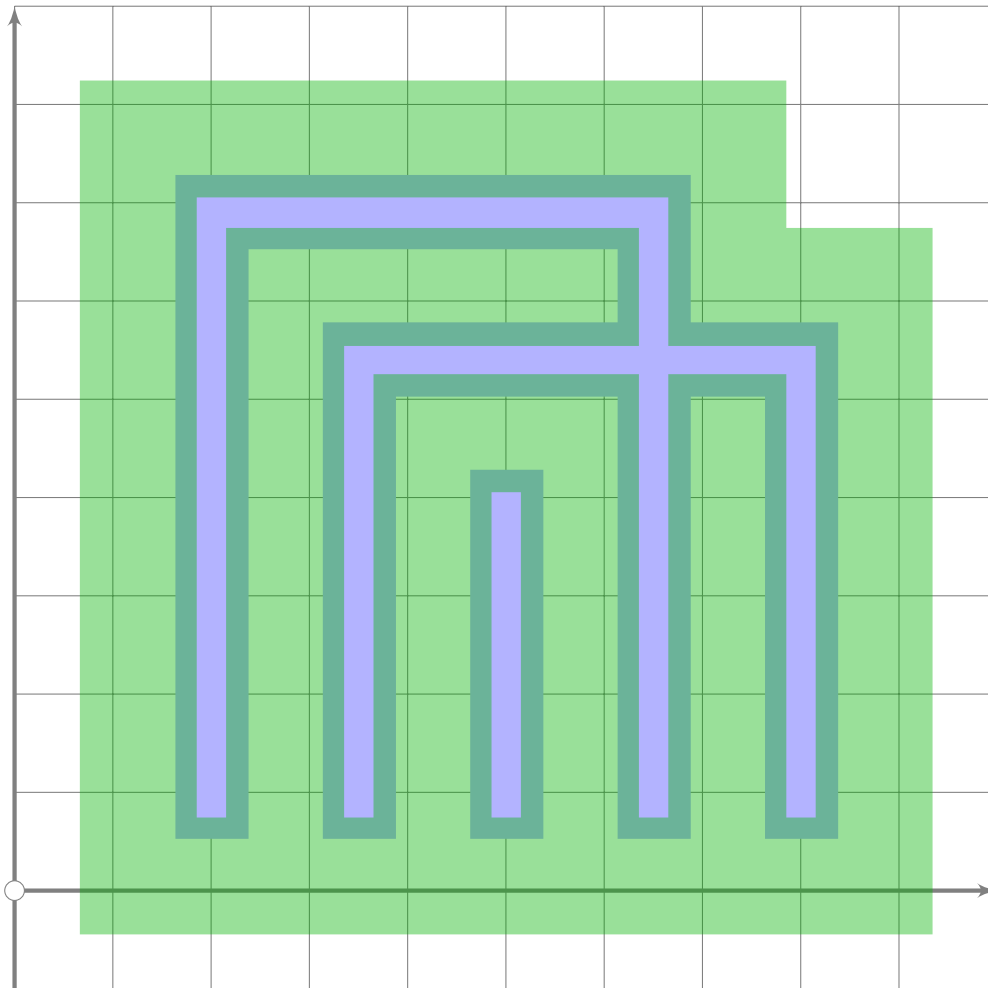


```
655 % #38 Suzumushi
656 begintsuglyph("genjimon38",230);
657   genjimon.suzumushi;
658 endtsuglyph;
659
```


U+F17E7
tsuku.genjimon39



```
660 % #39 Yuugiri
661 begintsuglyph("genjimon39",231);
662   genjimon.yuugiri;
663 endtsuglyph;
664
```

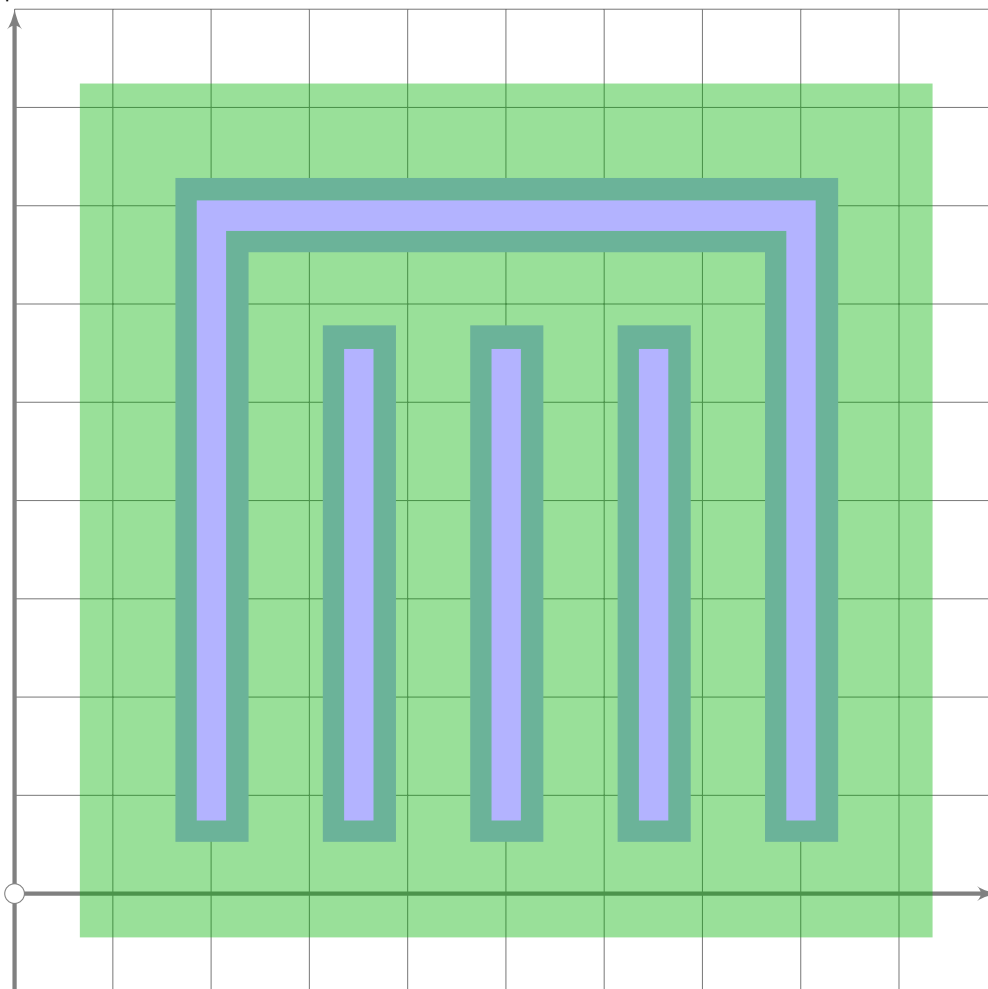


```

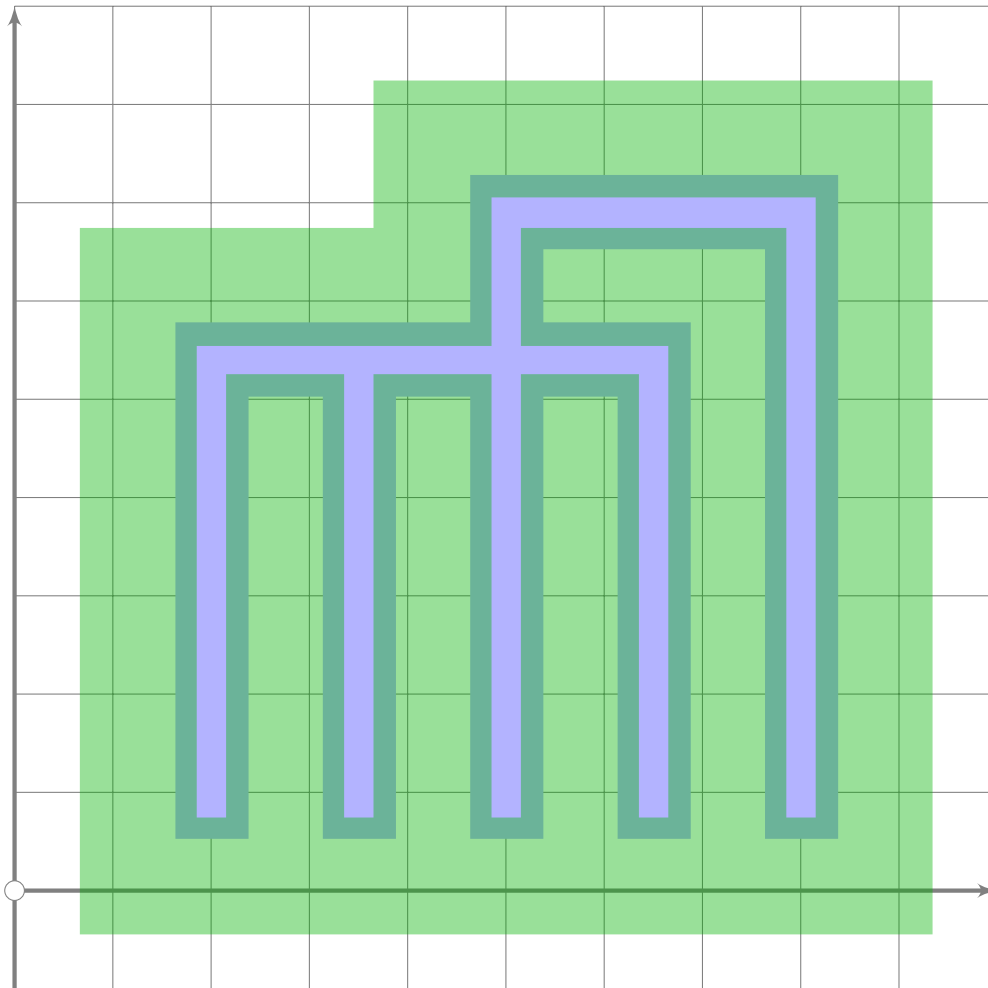
665 % #40 Minori
666 begint Suglyph("genjimon40",232);
667     genjimon.minori;
668 endts Suglyph;
669

```

U+F17E9
tsuku.genjimon41



```
670 % #41 Maboroshi
671 begintsuglyph("genjimon41";233);
672   genjimon.maboroshi;
673 endtsuglyph;
674
```

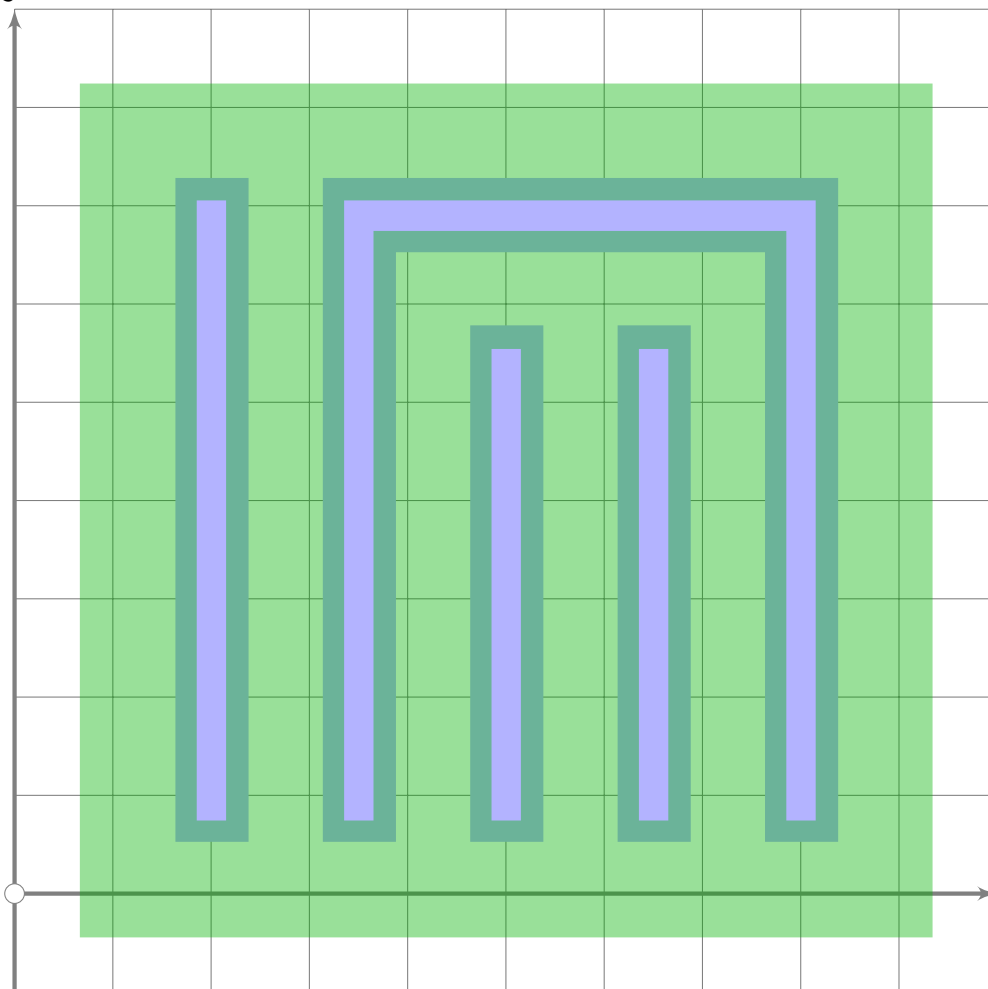


```

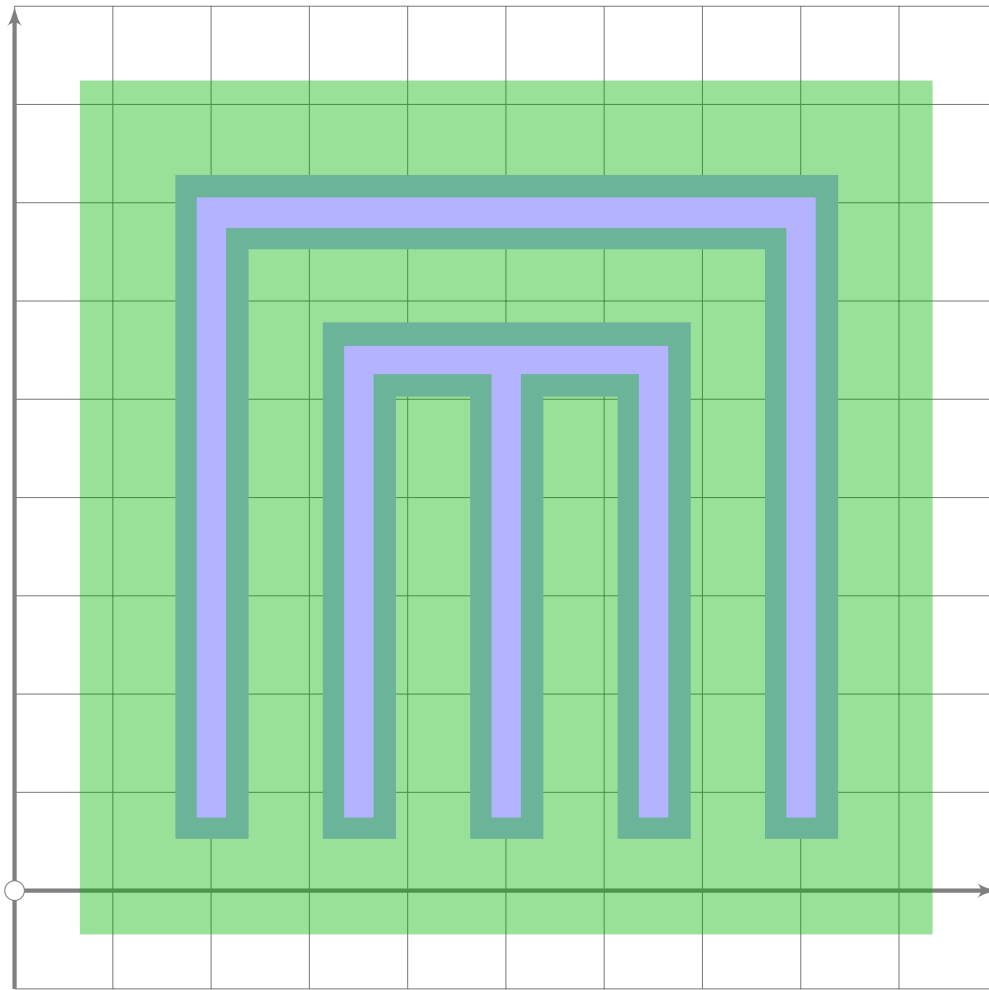
675 % #42 Ninounomiya
676 begint Suglyph("genjimon42",234);
677   genjimon.ninounomiya;
678 endts Suglyph;
679

```

U+F17EB
tsuku.genjimon43

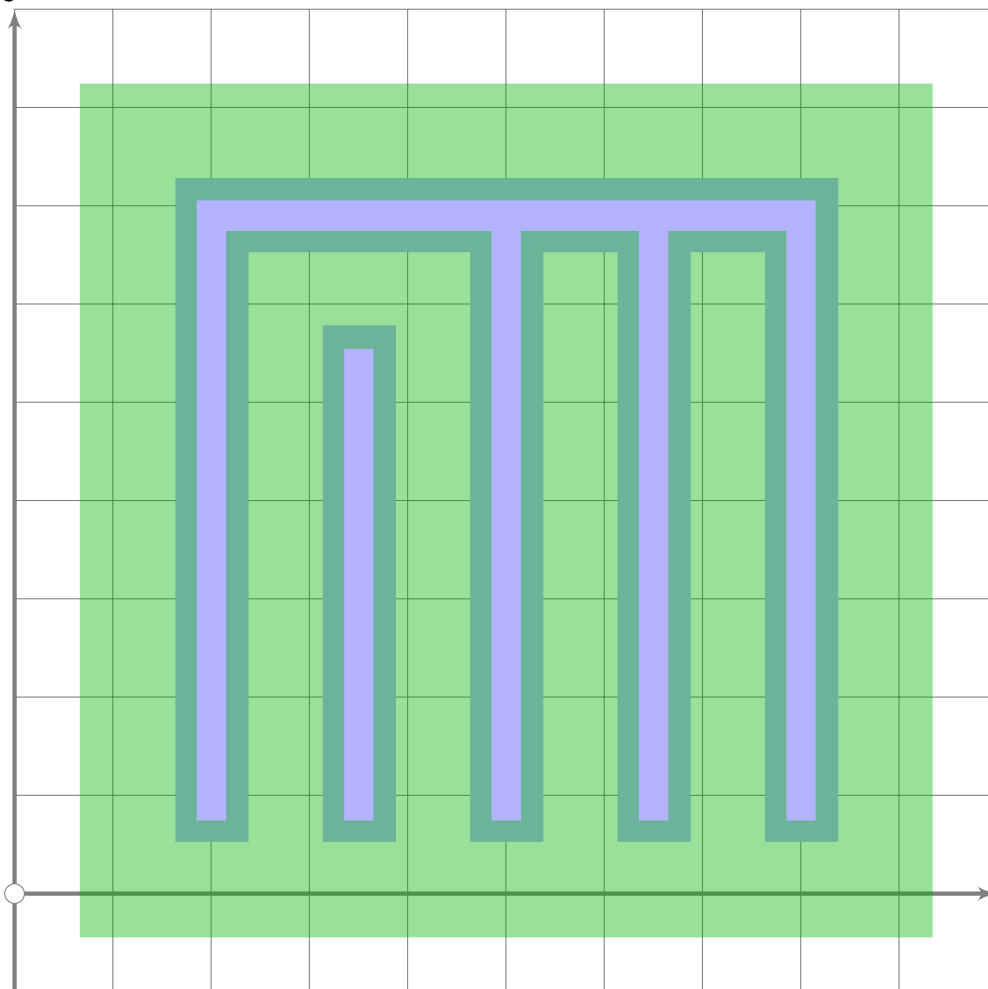


```
680 % #43 Koubai
681 begintsuglyph("genjimon43",235);
682   genjimon.koubai;
683 endtsuglyph;
684
```

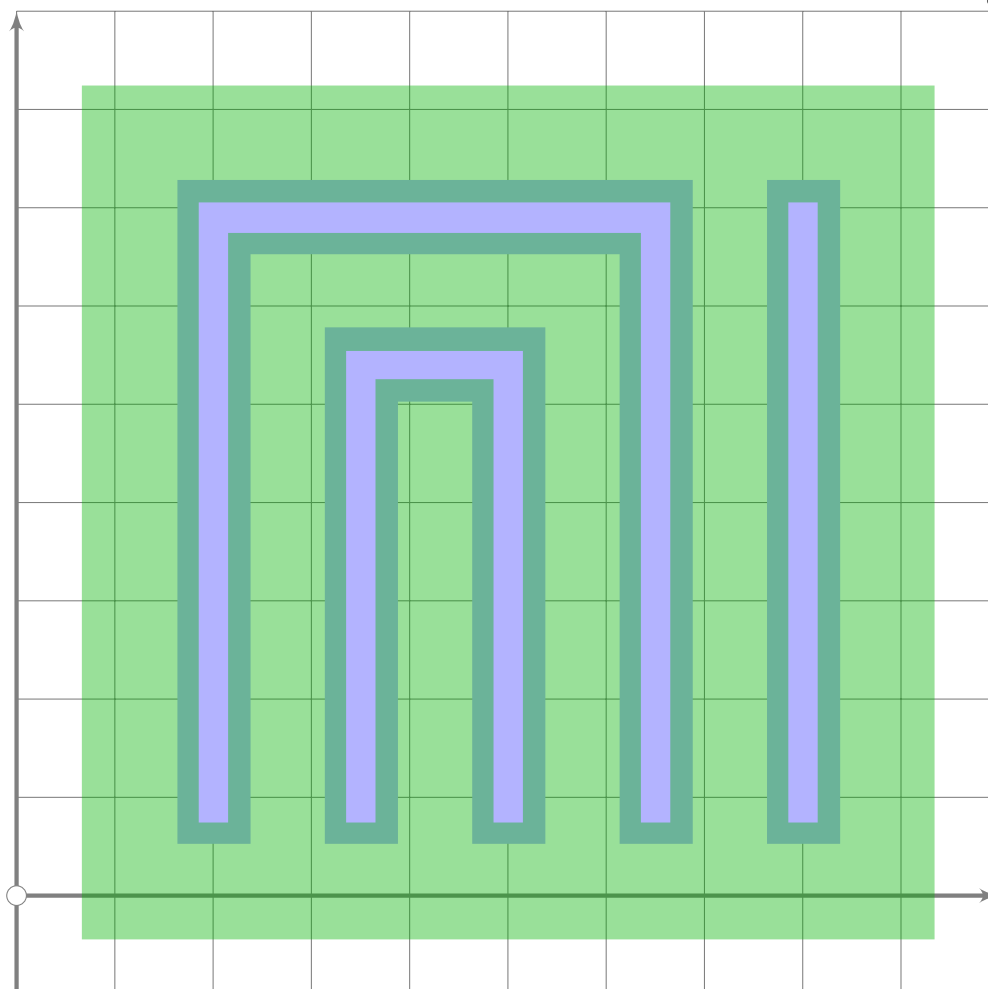


```
685 % #44 Takegawa
686 begint Suglyph("genjimon44",236);
687   genjimon.takegawa;
688 endts Suglyph;
689
```

U+F17ED
tsuku.genjimon45

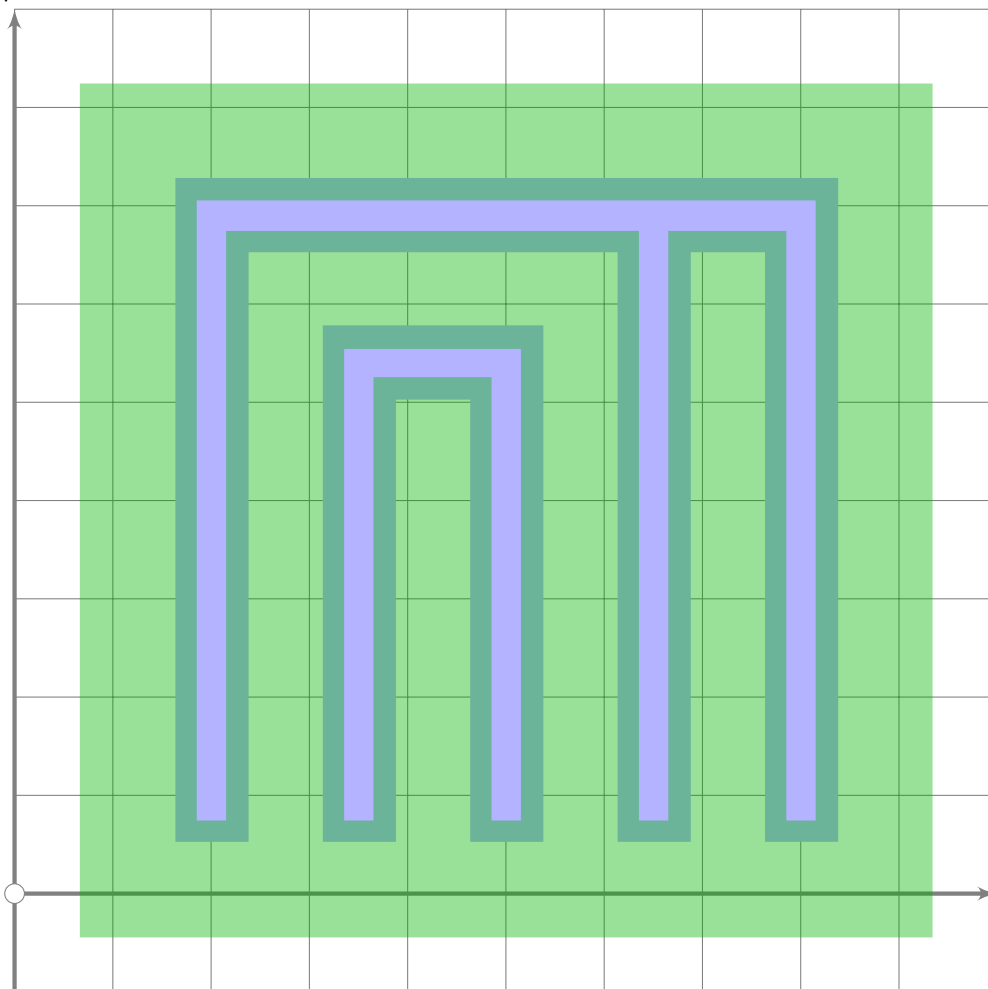


```
690 % #45 Hashihime
691 begintsuglyph("genjimon45",237);
692   genjimon.hashihime;
693 endtsuglyph;
694
```



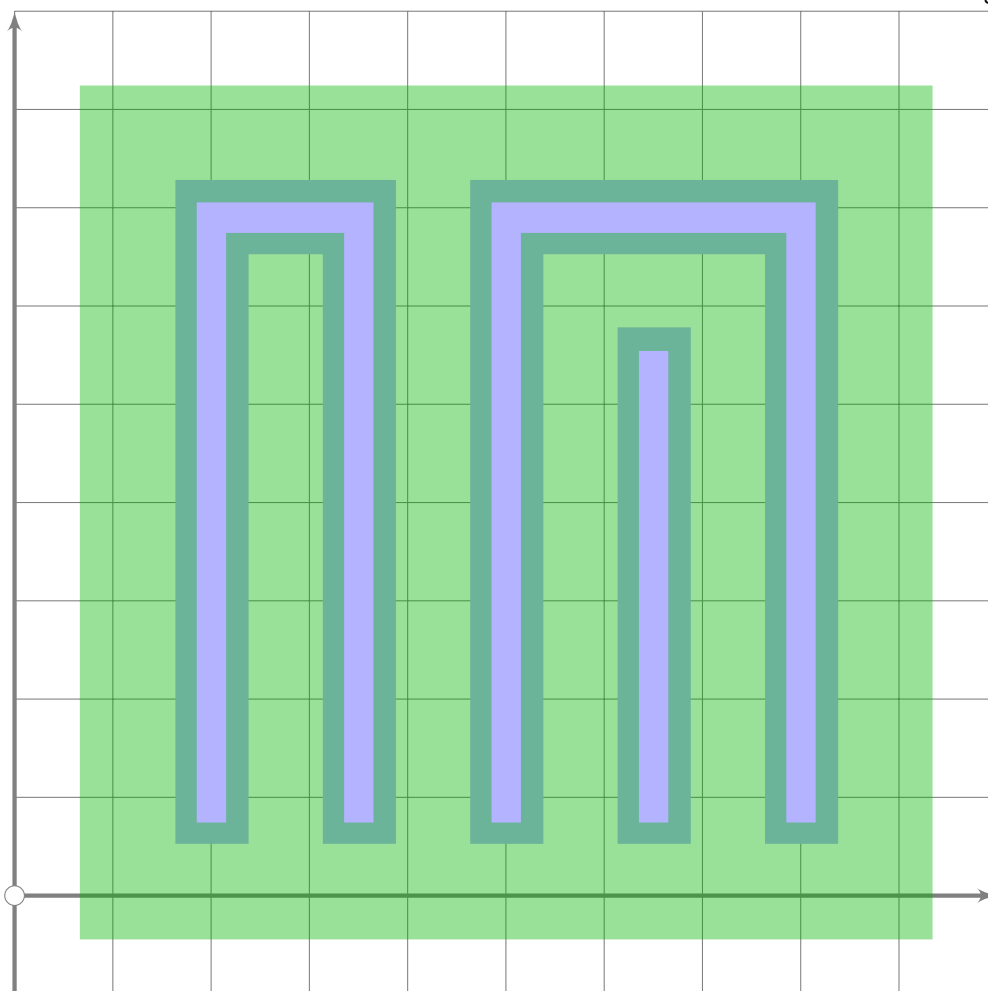
```
695 % #46 Shii ga Moto
696 begintsuglyph("genjimon46";238);
697   genjimon.shii_ga_moto;
698 endtsuglyph;
699
```


U+F17EF
tsuku.genjimon47



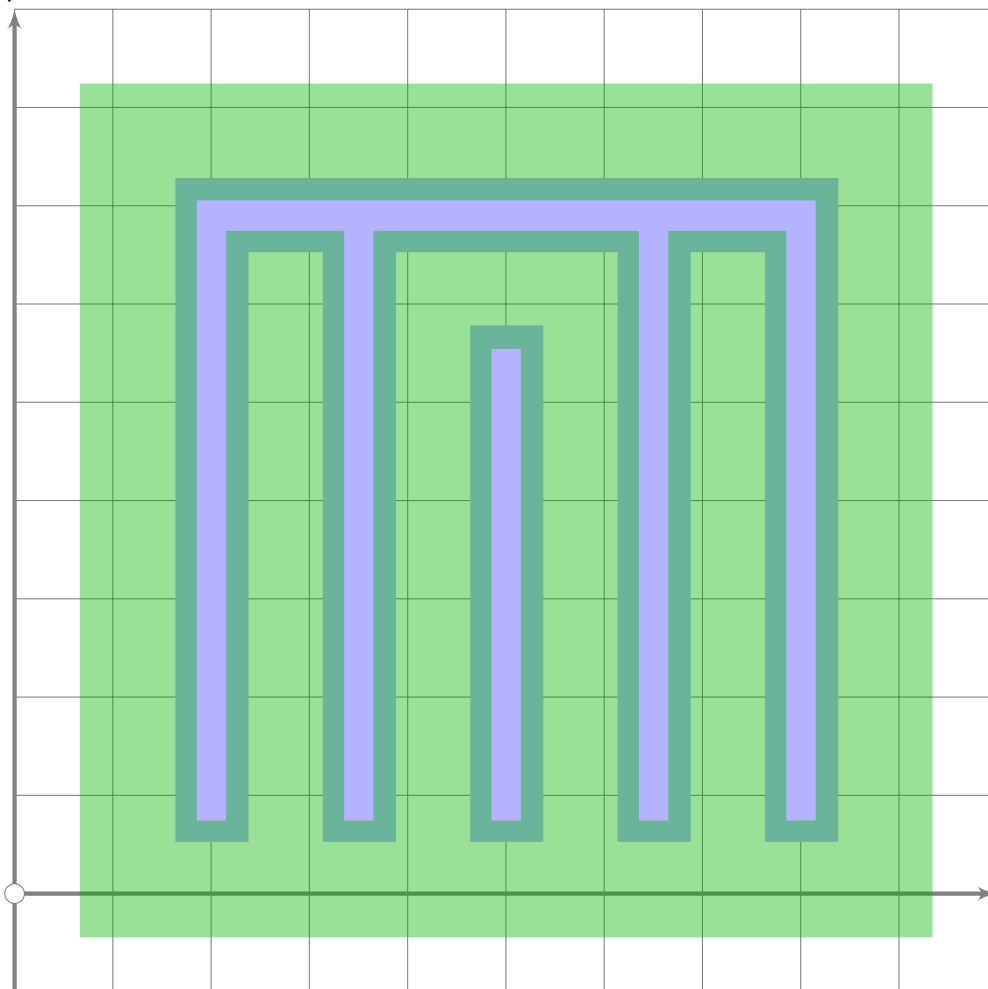
```
700 % #47 Agemaki
701 begintsuglyph("genjimon47",239);
702   genjimon.agemaki;
703 endtsuglyph;
704
```

F17



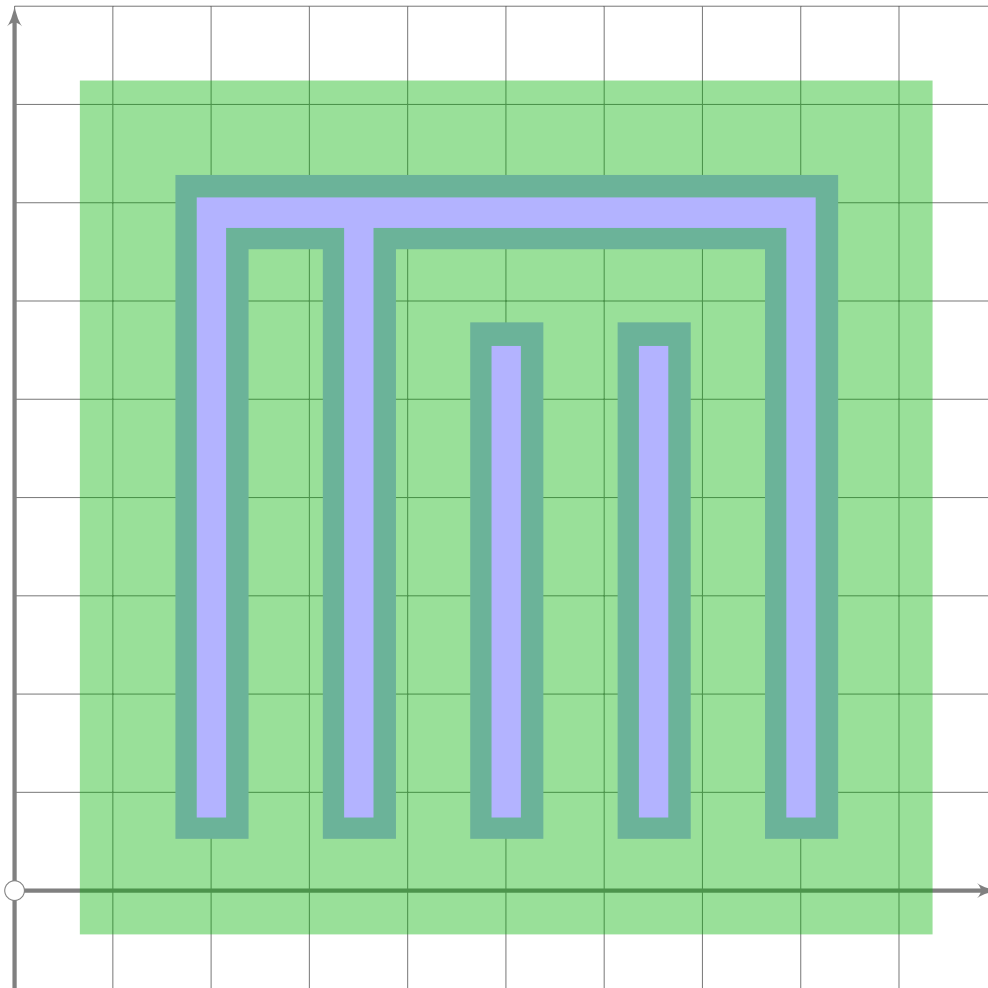
```
705 % #48 Sawarabi
706 begintsuglyph("genjimon48",240);
707   genjimon.sawarabi;
708 endtsuglyph;
709
```

U+F17F1
tsuku.genjimon49



```
710 % #49 Yadorigi  
711 begintsuglyph("genjimon49",241);  
712   genjimon.yadorigi;  
713 endtsuglyph;  
714
```

F17

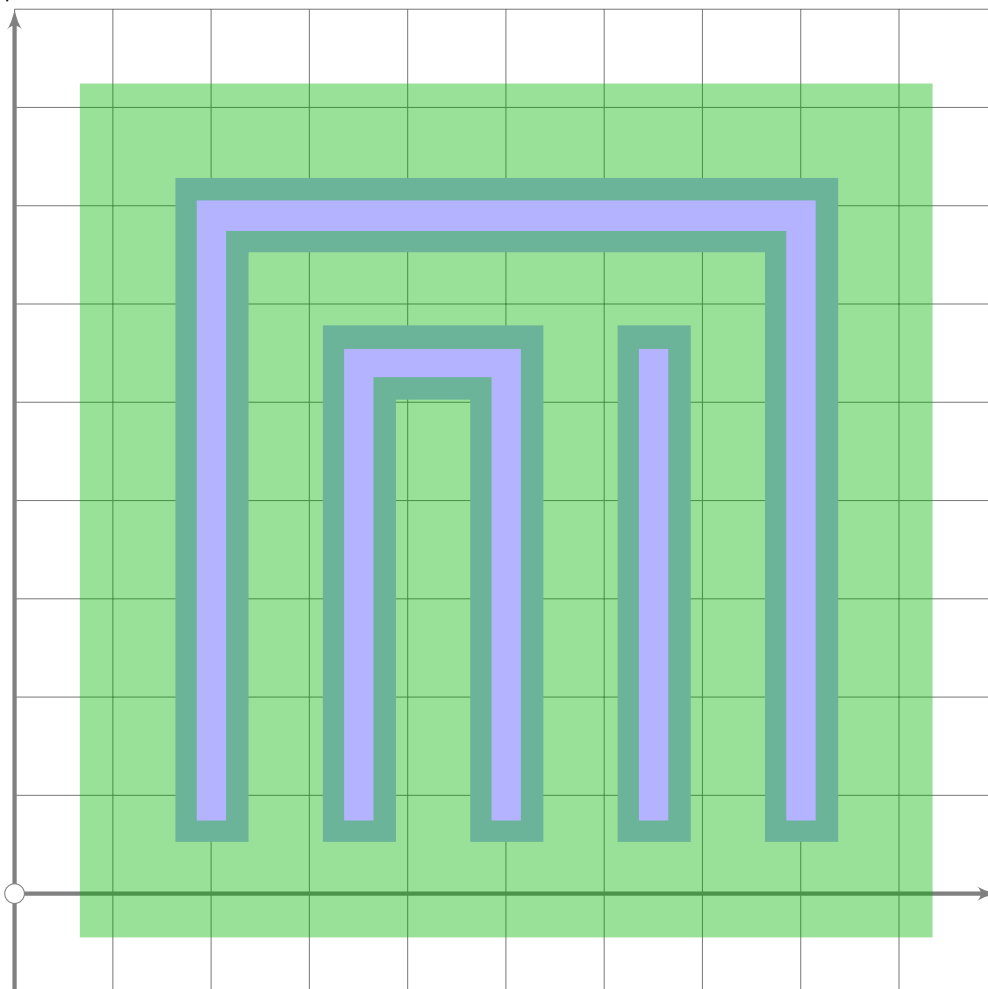


```

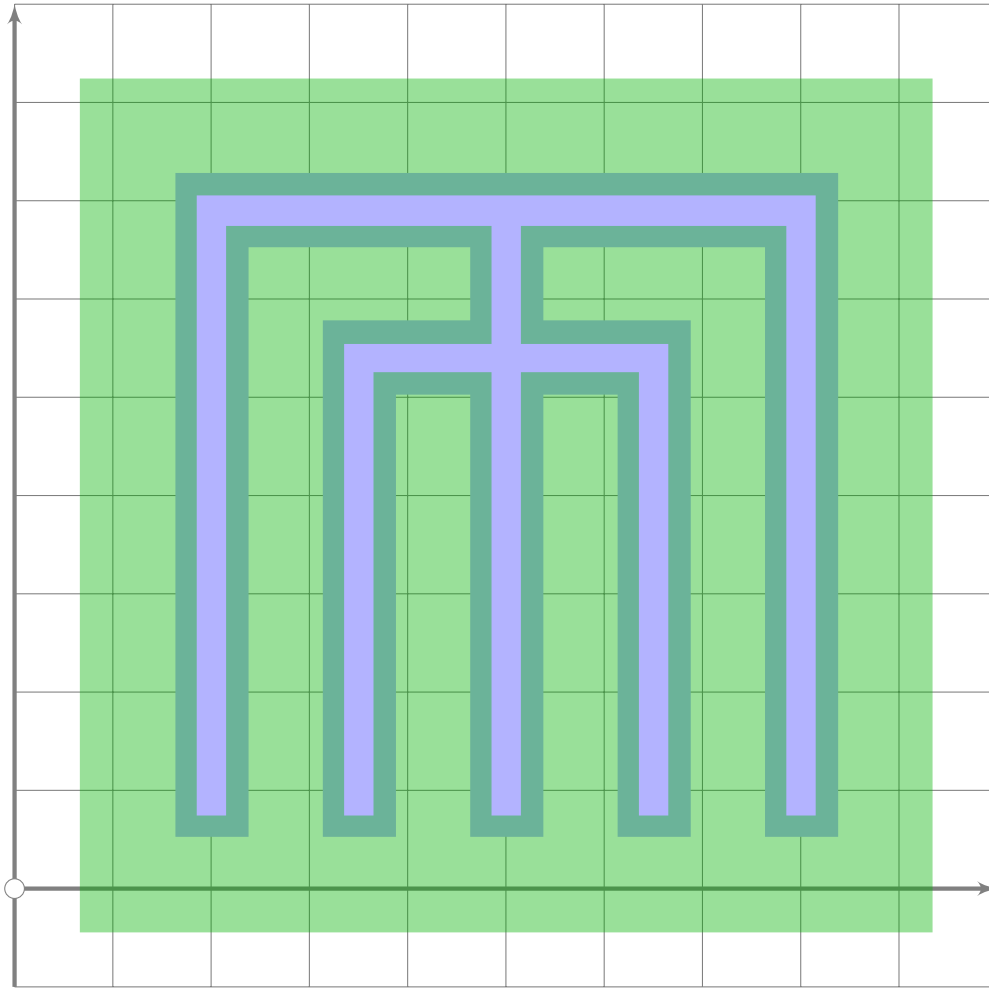
715 % #50 Azumaya
716 begint Suglyph("genjimon50",242);
717   genjimon.azumaya;
718 endts Suglyph;
719

```

U+F17F3
tsuku.genjimon51

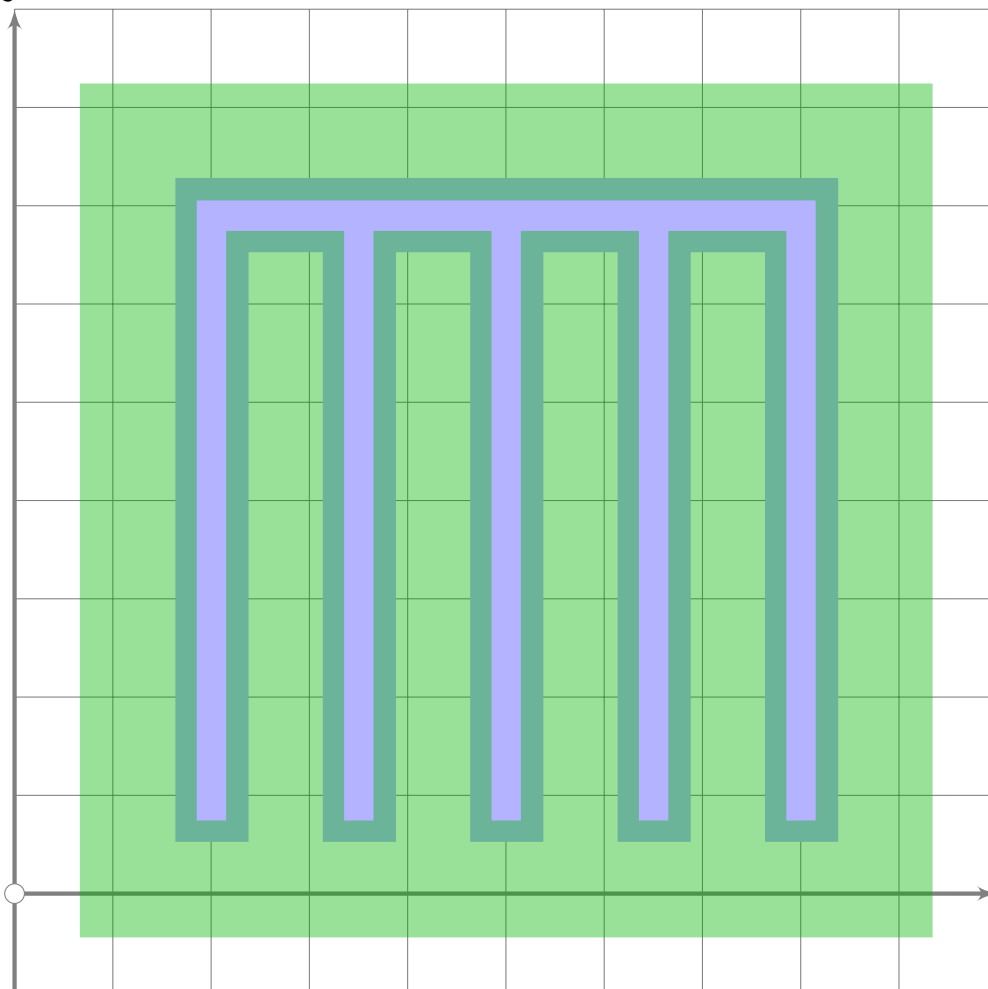


```
720 % #51 Ukifune
721 begintsuglyph("genjimon51";243);
722   genjimon.ukifune;
723 endtsuglyph;
724
```

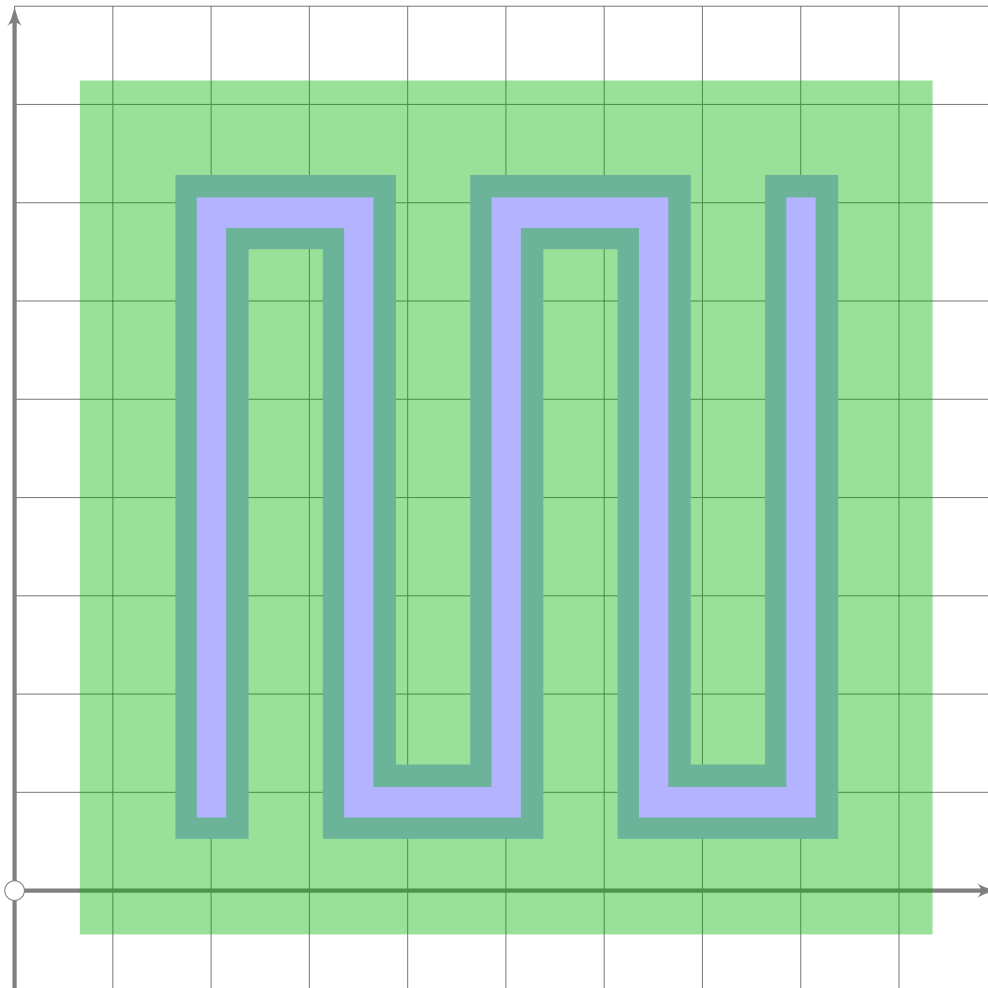


```
725 % #52 Kagerou
726 beginsuglyph("genjimon52",244);
727   genjimon.kagerou;
728 endsuglyph;
729
```

U+F17F5
tsuku.genjimon53



```
730 % #53 Tenarai
731 begintsuglyph("genjimon53";245);
732   genjimon.tenarai;
733 endtsuglyph;
734
```



```

735 % #54 Yume no Ukihashi
736 begintsuglyph("genjimon54";246);
737   genjimon.yume_no_ukihashi;
738 endtsuglyph;
739
740 endgroup;
741
742
743
744 endfont;
745
746

```


tsuku-ff0.mp

```
1 %
2 % Unicode page FF0 (Fraction Numerators) for Tsukurimashou
3 % Copyright (C) 2011 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 _____
32
33 beginfont
34
35 input latin-intro.mp;
36 input numerals.mp;
37 input frac-intro.mp;
38
39 _____
40
```

Fraction Numerators

```
41 % FRACTION NUMERATORS
42
43 transform nxf[];
44
45 (frac.in.x1,frac.in.y1) transformed nxf1=(frac.one.x1,frac.one.y4);
46 (frac.in.x2,frac.in.y1) transformed nxf1=(frac.one.x2,frac.one.y4);
47 (frac.in.x1,frac.in.y2) transformed nxf1=(frac.one.x1,frac.one.y5);
48
49 (frac.in.x1,frac.in.y1) transformed nxf2=(frac.two.x1,frac.two.y4);
50 (frac.in.x2,frac.in.y1) transformed nxf2=(frac.two.x2,frac.two.y4);
51 (frac.in.x1,frac.in.y2) transformed nxf2=(frac.two.x1,frac.two.y5);
52 (frac.in.x1,frac.in.y1) transformed nxf3=(frac.two.x2,frac.two.y4);
53 (frac.in.x2,frac.in.y1) transformed nxf3=(frac.two.x3,frac.two.y4);
54 (frac.in.x1,frac.in.y2) transformed nxf3=(frac.two.x2,frac.two.y5);
55
56 (frac.in.x1,frac.in.y1) transformed nxf4=(frac.three.x1,frac.three.y4);
57 (frac.in.x2,frac.in.y1) transformed nxf4=(frac.three.x2,frac.three.y4);
58 (frac.in.x1,frac.in.y2) transformed nxf4=(frac.three.x1,frac.three.y5);
59 (frac.in.x1,frac.in.y1) transformed nxf5=(frac.three.x2,frac.three.y4);
60 (frac.in.x2,frac.in.y1) transformed nxf5=(frac.three.x3,frac.three.y4);
61 (frac.in.x1,frac.in.y2) transformed nxf5=(frac.three.x2,frac.three.y5);
62 (frac.in.x1,frac.in.y1) transformed nxf6=(frac.three.x3,frac.three.y4);
63 (frac.in.x2,frac.in.y1) transformed nxf6=(frac.three.x4,frac.three.y4);
64 (frac.in.x1,frac.in.y2) transformed nxf6=(frac.three.x3,frac.three.y5);
65
66 (frac.in.x1,frac.in.y1) transformed nxf7=(frac.four.x1,frac.four.y4);
67 (frac.in.x2,frac.in.y1) transformed nxf7=(frac.four.x2,frac.four.y4);
```

```

68 (frac.in.x1,frac.in.y2) transformed nxf7=(frac.four.x1,frac.four.y5);
69 (frac.in.x1,frac.in.y1) transformed nxf8=(frac.four.x2,frac.four.y4);
70 (frac.in.x2,frac.in.y1) transformed nxf8=(frac.four.x3,frac.four.y4);
71 (frac.in.x1,frac.in.y2) transformed nxf8=(frac.four.x2,frac.four.y5);
72 (frac.in.x1,frac.in.y1) transformed nxf9=(frac.four.x3,frac.four.y4);
73 (frac.in.x2,frac.in.y1) transformed nxf9=(frac.four.x4,frac.four.y4);
74 (frac.in.x1,frac.in.y2) transformed nxf9=(frac.four.x3,frac.four.y5);
75 (frac.in.x1,frac.in.y1) transformed nxf10=(frac.four.x4,frac.four.y4);
76 (frac.in.x2,frac.in.y1) transformed nxf10=(frac.four.x5,frac.four.y4);
77 (frac.in.x1,frac.in.y2) transformed nxf10=(frac.four.x4,frac.four.y5);
78
79 (frac.in.x1,frac.in.y1) transformed nxf11=(frac.half.x1,frac.half.y4);
80 (frac.in.x2,frac.in.y1) transformed nxf11=(frac.half.x2,frac.half.y4);
81 (frac.in.x1,frac.in.y2) transformed nxf11=(frac.half.x1,frac.half.y5);
82
83 tsu_rescale_native_zero;

```



```

84
85 beginsuglyph("fraction.1",1);
86 push_stroke(((0.25)[(frac.one.x1,frac.one.y3),(frac.one.x2,frac.one.y3)])
87   -(1.25[(frac.one.x1,frac.one.y3),(frac.one.x2,frac.one.y3)]),
88   (2,2)-(2,2));

```

U+FF002

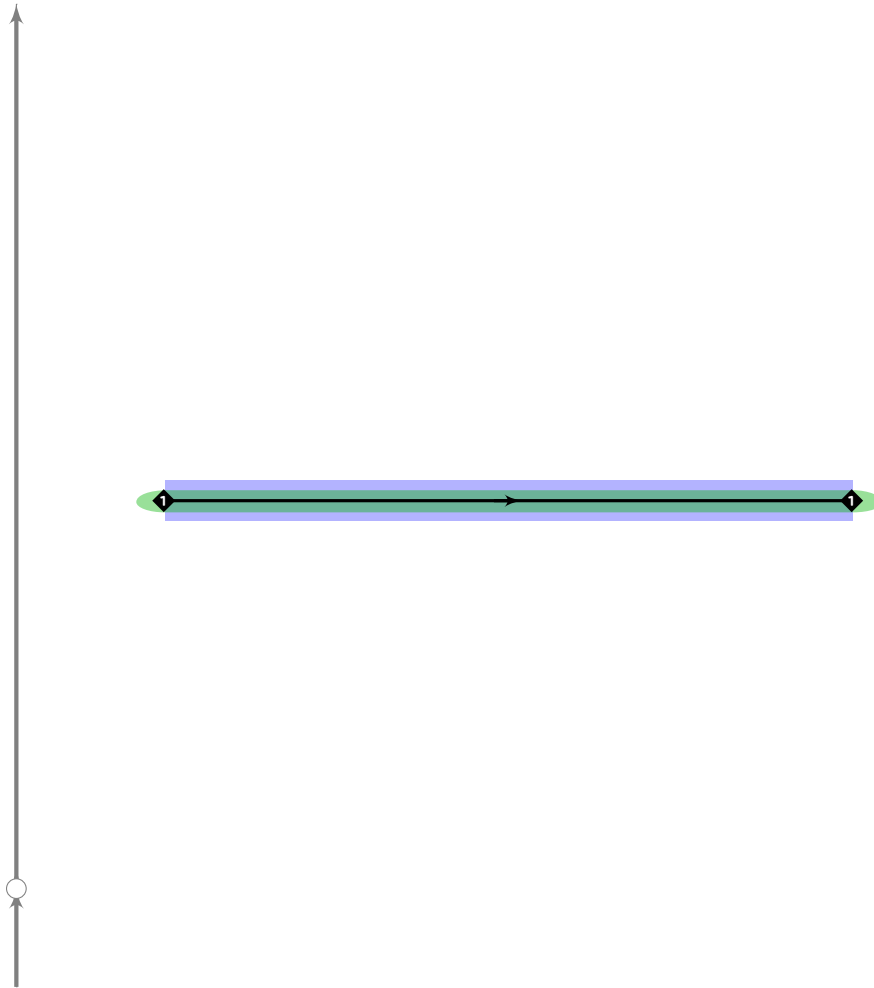
tsuku.fraction.2

```
89  set_bosize(0,60);  
90  tsu_render;  
91  endtsuglyph;
```



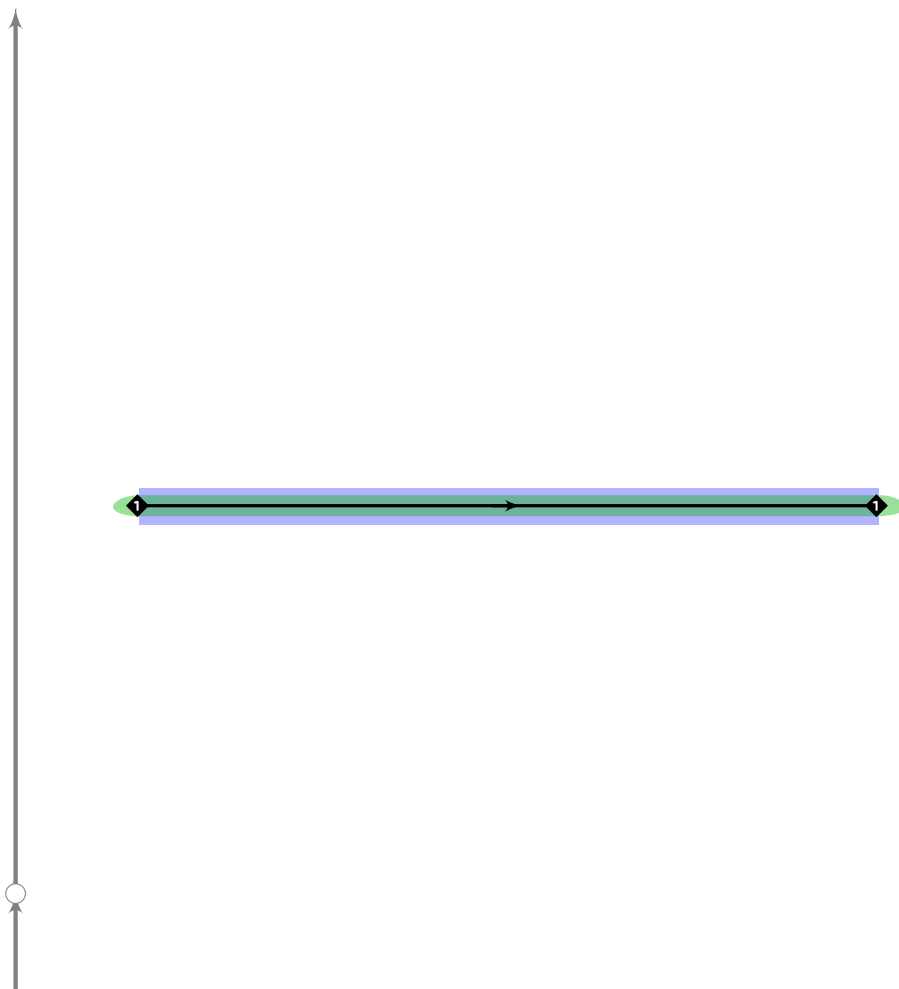
```
92  
93  begint Suglyph("fraction.2";2);  
94  push_stroke(((0.07)[(frac.two.x1,frac.two.y3),(frac.two.x3,frac.two.y3)])  
95    -((1.07)[(frac.two.x1,frac.two.y3),(frac.two.x3,frac.two.y3)]),  
96    (2,2)-(2,2));  
97  set_bosize(0,60);  
98  tsu_render;  
99  endtsuglyph;
```

FF0

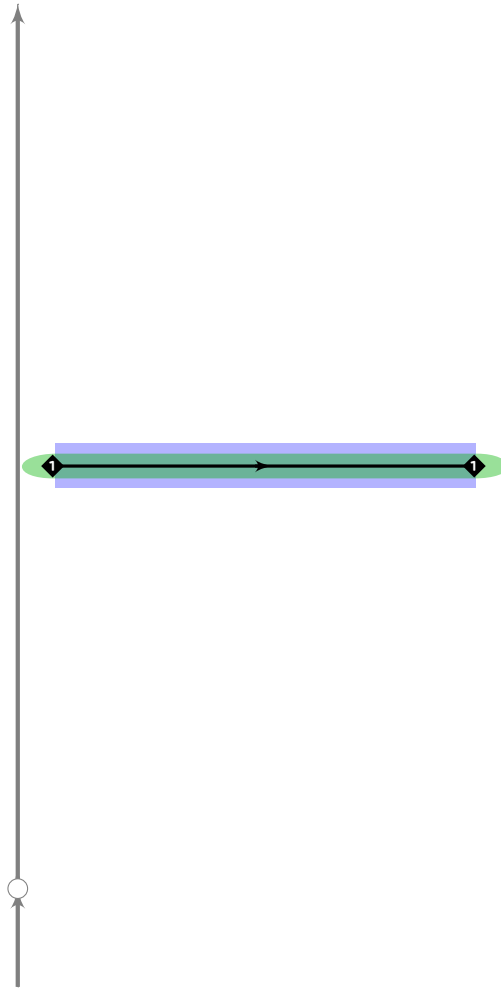


```
100
101 begint Suglyph("fraction.3";3);
102   push_stroke((frac.three.x1,frac.three.y3)-(frac.three.x4,frac.three.y3),
103     (2,2)-(2,2));
104   set_bosize(0,55);
105   tsu_render;
106 endtsuglyph;
```

U+FF004
tsuku.fraction.4



```
107
108 begintsuglyph("fraction.4";4);
109   push_stroke((0.03[(frac.four.x1,frac.four.y3),(frac.four.x5,frac.four.y3]])
110     -(0.97[(frac.four.x1,frac.four.y3),(frac.four.x5,frac.four.y3)]),
111     (2,2)-(2,2));
112   set__bosize(0,50);
113   tsu__render;
114 endtsuglyph;
```



```

115
116 begintsuglyph("fraction.latn",5);
117   push_stroke(
118     ((-0.15)[(frac.half.x1,frac.half.y3),(frac.half.x2,frac.half.y3)])
119     -(1.15[(frac.half.x1,frac.half.y3),(frac.half.x2,frac.half.y3)]),
120     (2,2)-(2,2));
121   set_bosize(0,60);
122   tsu_render;
123 endtsuglyph;
124
125 make_digit_set(nxf1,"0","1");
126
127 make_digit_set(nxf2,"0","2");
128 make_digit_set(nxf3,"0","3");
129
130 make_digit_set(nxf4,"0","4");
131 make_digit_set(nxf5,"0","5");
132 make_digit_set(nxf6,"0","6");
133
134 make_digit_set(nxf7,"0","7");
135 make_digit_set(nxf8,"0","8");

```

```
136 make_digit_set(nxf9,"0","9");
137 make_digit_set(nxf10,"0","a");
138
139 make_digit_set(nxf11,"0","b");
140
141 _____
142
143 endfont;
144
145 _____
```

tsuku-ff1.mp

```
1 %
2 % Unicode page FF1 (Fraction Denominators) for Tsukurimashou
3 % Copyright (C) 2011 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 _____
32
33 beginfont
34
35 input latin-intro.mp;
36 input numerals.mp;
37 input frac-intro.mp;
38
39 _____
40
```

Fraction Denominators

```
41 % FRACTION DENOMINATORS
42
43 transform nxf[];
44
45 (frac.in.x1,frac.in.y1) transformed nxf1=(frac.one.x1,frac.one.y1);
46 (frac.in.x2,frac.in.y1) transformed nxf1=(frac.one.x2,frac.one.y1);
47 (frac.in.x1,frac.in.y2) transformed nxf1=(frac.one.x1,frac.one.y2);
48
49 (frac.in.x1,frac.in.y1) transformed nxf2=(frac.two.x1,frac.two.y1);
50 (frac.in.x2,frac.in.y1) transformed nxf2=(frac.two.x2,frac.two.y1);
51 (frac.in.x1,frac.in.y2) transformed nxf2=(frac.two.x1,frac.two.y2);
52 (frac.in.x1,frac.in.y1) transformed nxf3=(frac.two.x2,frac.two.y1);
53 (frac.in.x2,frac.in.y1) transformed nxf3=(frac.two.x3,frac.two.y1);
54 (frac.in.x1,frac.in.y2) transformed nxf3=(frac.two.x2,frac.two.y2);
55
56 (frac.in.x1,frac.in.y1) transformed nxf4=(frac.three.x1,frac.three.y1);
57 (frac.in.x2,frac.in.y1) transformed nxf4=(frac.three.x2,frac.three.y1);
58 (frac.in.x1,frac.in.y2) transformed nxf4=(frac.three.x1,frac.three.y2);
59 (frac.in.x1,frac.in.y1) transformed nxf5=(frac.three.x2,frac.three.y1);
60 (frac.in.x2,frac.in.y1) transformed nxf5=(frac.three.x3,frac.three.y1);
61 (frac.in.x1,frac.in.y2) transformed nxf5=(frac.three.x2,frac.three.y2);
62 (frac.in.x1,frac.in.y1) transformed nxf6=(frac.three.x3,frac.three.y1);
63 (frac.in.x2,frac.in.y1) transformed nxf6=(frac.three.x4,frac.three.y1);
64 (frac.in.x1,frac.in.y2) transformed nxf6=(frac.three.x3,frac.three.y2);
65
66 (frac.in.x1,frac.in.y1) transformed nxf7=(frac.four.x1,frac.four.y1);
67 (frac.in.x2,frac.in.y1) transformed nxf7=(frac.four.x2,frac.four.y1);
```



```

68 (frac.in.x1,frac.in.y2) transformed nxf7=(frac.four.x1,frac.four.y2);
69 (frac.in.x1,frac.in.y1) transformed nxf8=(frac.four.x2,frac.four.y1);
70 (frac.in.x2,frac.in.y1) transformed nxf8=(frac.four.x3,frac.four.y1);
71 (frac.in.x1,frac.in.y2) transformed nxf8=(frac.four.x2,frac.four.y2);
72 (frac.in.x1,frac.in.y1) transformed nxf9=(frac.four.x3,frac.four.y1);
73 (frac.in.x2,frac.in.y1) transformed nxf9=(frac.four.x4,frac.four.y1);
74 (frac.in.x1,frac.in.y2) transformed nxf9=(frac.four.x3,frac.four.y2);
75 (frac.in.x1,frac.in.y1) transformed nxf10=(frac.four.x4,frac.four.y1);
76 (frac.in.x2,frac.in.y1) transformed nxf10=(frac.four.x5,frac.four.y1);
77 (frac.in.x1,frac.in.y2) transformed nxf10=(frac.four.x4,frac.four.y2);
78
79 (frac.in.x1,frac.in.y1) transformed nxf11=(frac.half.x1,frac.half.y1);
80 (frac.in.x2,frac.in.y1) transformed nxf11=(frac.half.x2,frac.half.y1);
81 (frac.in.x1,frac.in.y2) transformed nxf11=(frac.half.x1,frac.half.y2);
82
83 tsu_rescale_full;
84 make_digit_set(nxf1,"1","1");
85
86 tsu_rescale_native_zero;
87 make_digit_set(nxf2,"1","2");
88 tsu_rescale_full;
89 make_digit_set(nxf3,"1","3");
90
91 tsu_rescale_native_zero;
92 make_digit_set(nxf4,"1","4");
93 make_digit_set(nxf5,"1","5");
94 tsu_rescale_full;
95 make_digit_set(nxf6,"1","6");
96
97 tsu_rescale_native_zero;
98 make_digit_set(nxf7,"1","7");
99 make_digit_set(nxf8,"1","8");
100 make_digit_set(nxf9,"1","9");
101 tsu_rescale_full;
102 make_digit_set(nxf10,"1","a");
103
104 tsu_rescale_native_narrow;
105 make_digit_set(nxf11,"1","b");
106
107 _____
108
109 endfont;
110
111 _____

```