

作りましょう 0.11

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 0.11

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 V

U+1000 to U+2FFF

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20

tsuku-21.mp

21

tsuku-24.mp

24

tsuku-25.mp

25

tsuku-26.mp

26

tsuku-27.mp

27

tsuku-2e.mp

2E

tsuku-2f.mp

2F


```

1 %
2 % Unicode page 20 (Punctuation) 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 punct.mp;
39
40 do_late_includes;
41
42 

---


43

```

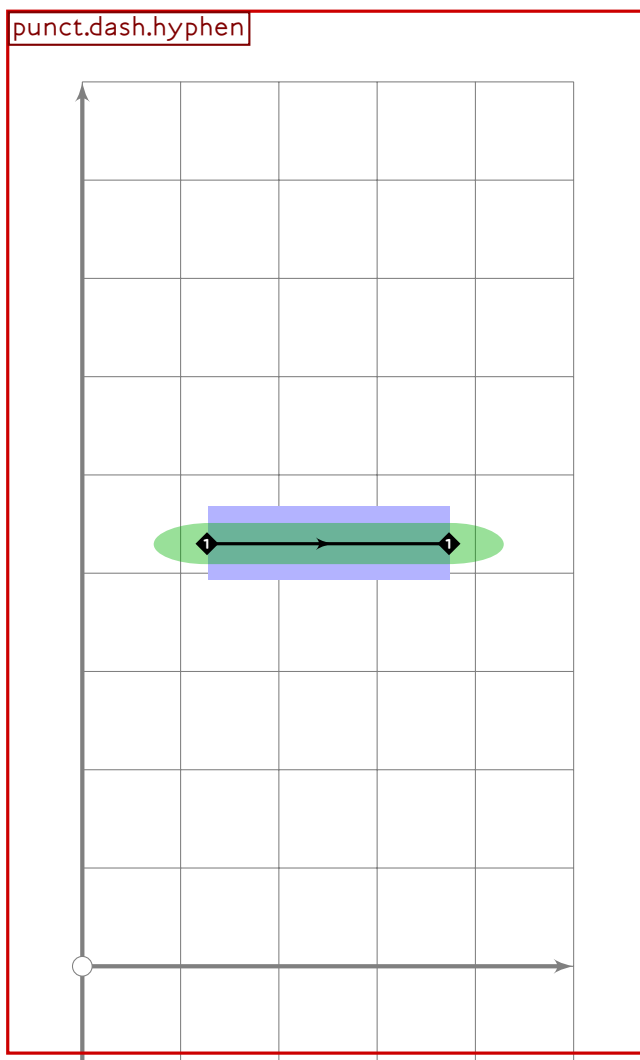
General Punctuation

```

44 % GENERAL PUNCTUATION
45
46 % WARNING changing rescale setting
47 tsu_rescale_half;
48
49 % hyphen
50 begintsuglyph("uni2010",16);
51   punct.dash.hyphen;
52   tsu_render;
53 endtsuglyph;
54

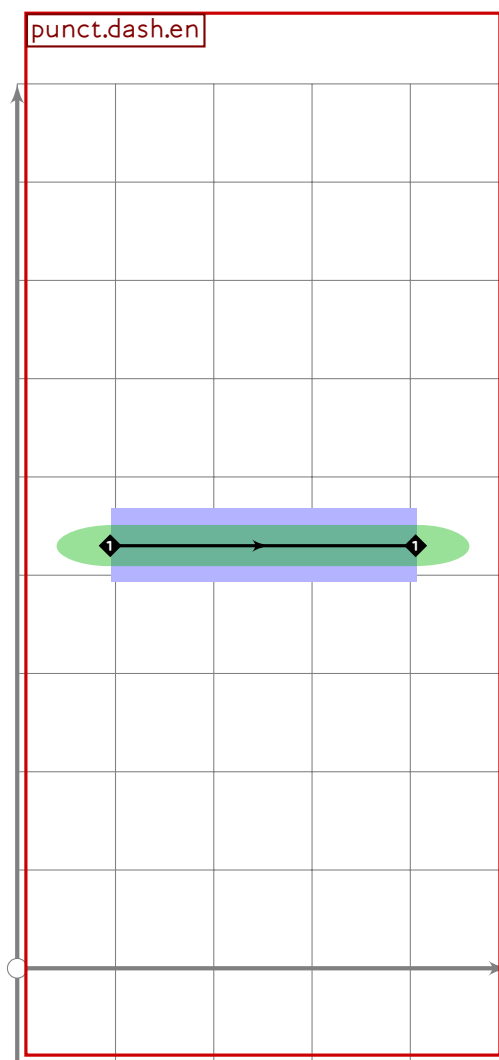
```

[see page 385]



```
55 % non-breaking hyphen
56 begintsuglyph("uni2011";17);
57   punct.dash.hyphen;
58   tsu_render;
59 endtsuglyph;
60
61 % figure dash
62 begintsuglyph("figuredash";18);
63   punct.dash.en;
64   tsu_render;
65 endtsuglyph;
66
```

[see page 384]

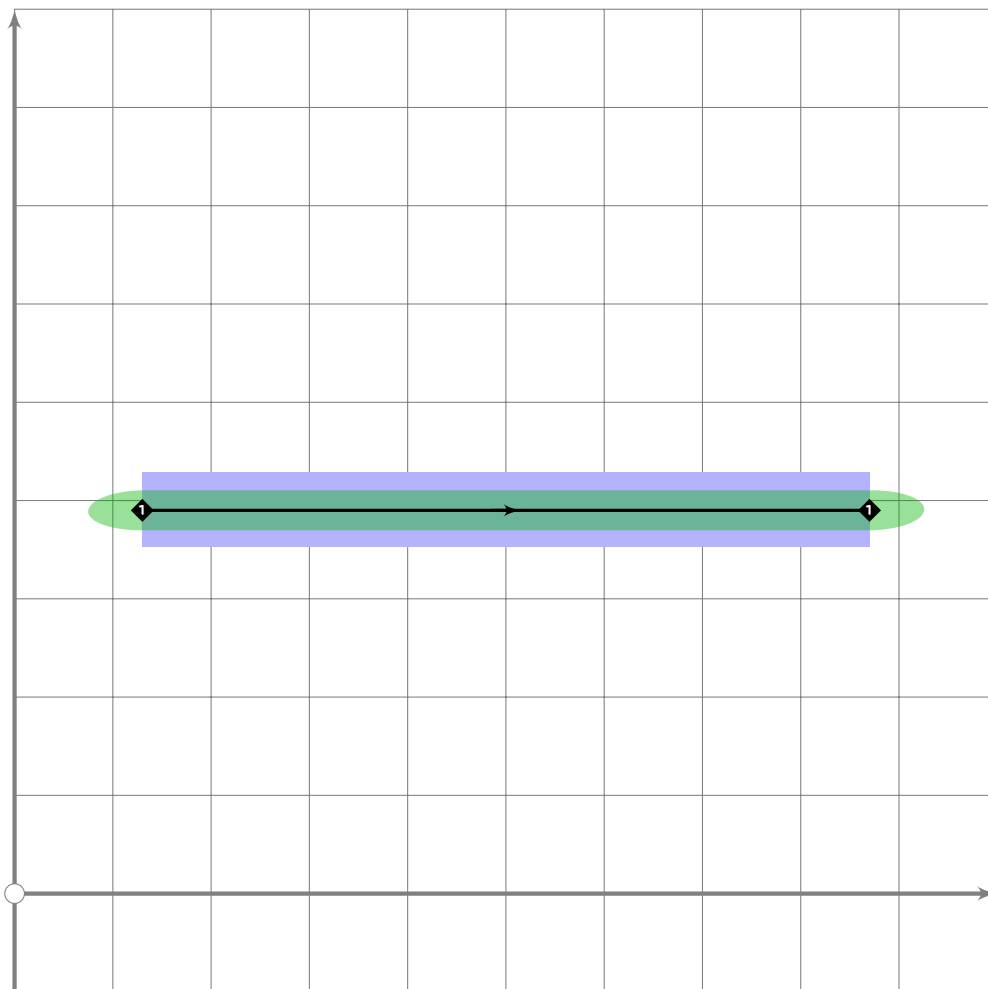


```

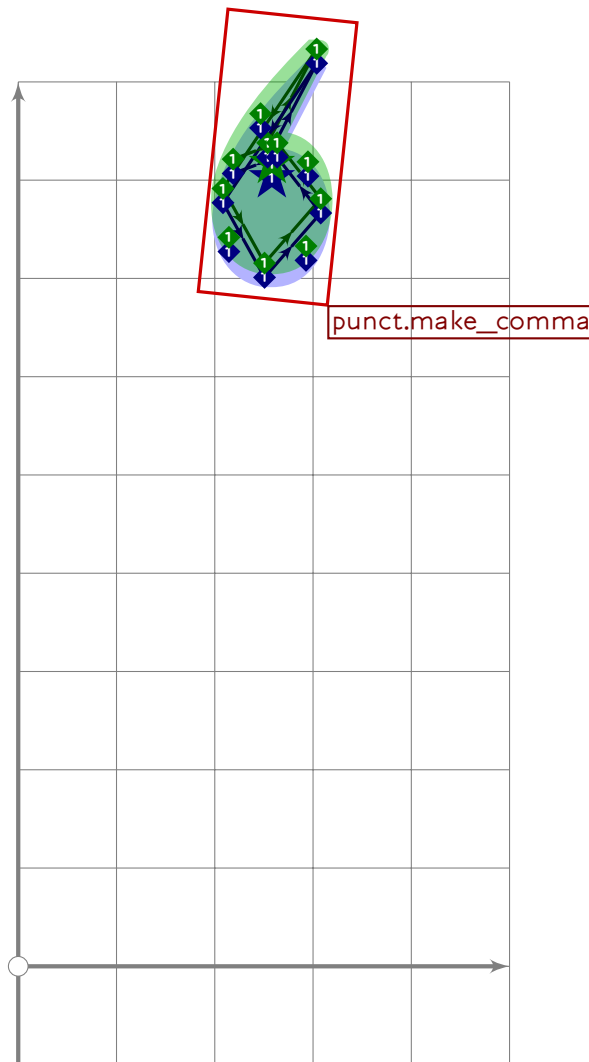
67 % en dash
68 begintsuglyph("endash",19);
69   punct.dash.en;
70   tsu_render;
71 endtsuglyph;
72
73 % WARNING changing rescale setting
74 tsu_rescale_full;
75
76 % em dash
77 begintsuglyph("emdash",20);
78   punct.dash.em;
79   tsu_render;
80 endtsuglyph;
81

```

[see page 383]



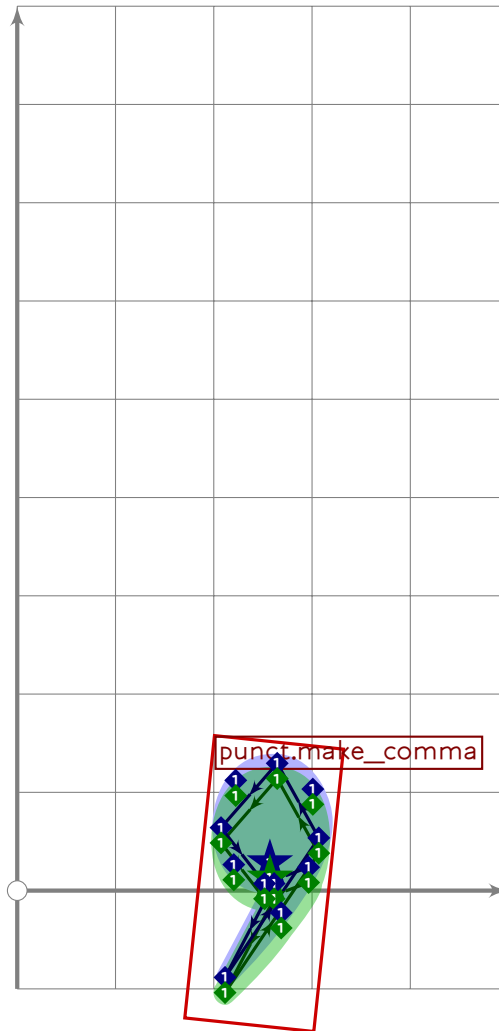
```
82 % horizontal bar
83 beginsuglyph("uni2015";21);
84   push_stroke((130,390)-(870,390),(2,2)-(2,2));
85   tsu_render;
86 endsuglyph;
87
88 % WARNING changing rescale setting
89 tsu_rescale_half;
90
```



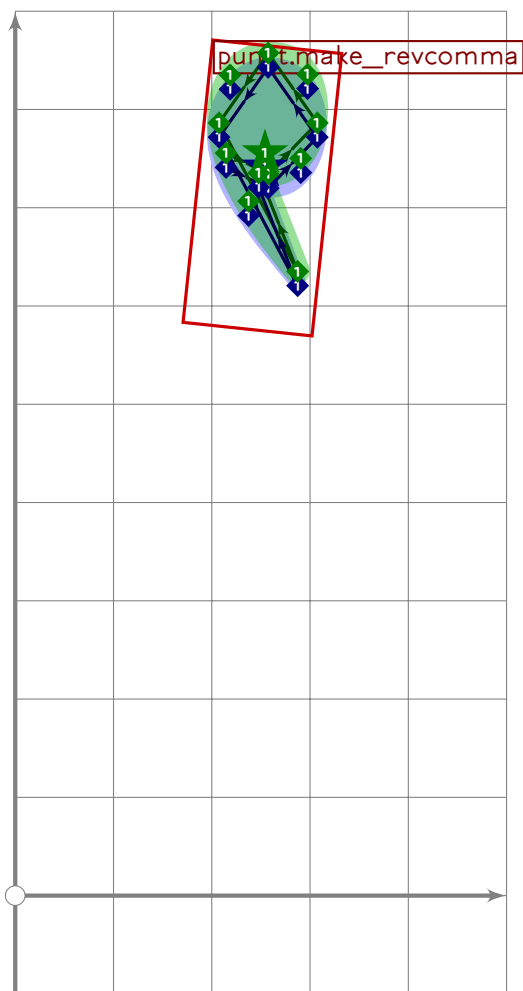
```
91 % high-6
92 beginsuglyph('quoteleft';24);
93   punct.make_comma((520,ymetric(0.94)),180);
94   tsu_render;
95 endsuglyph;
96
```



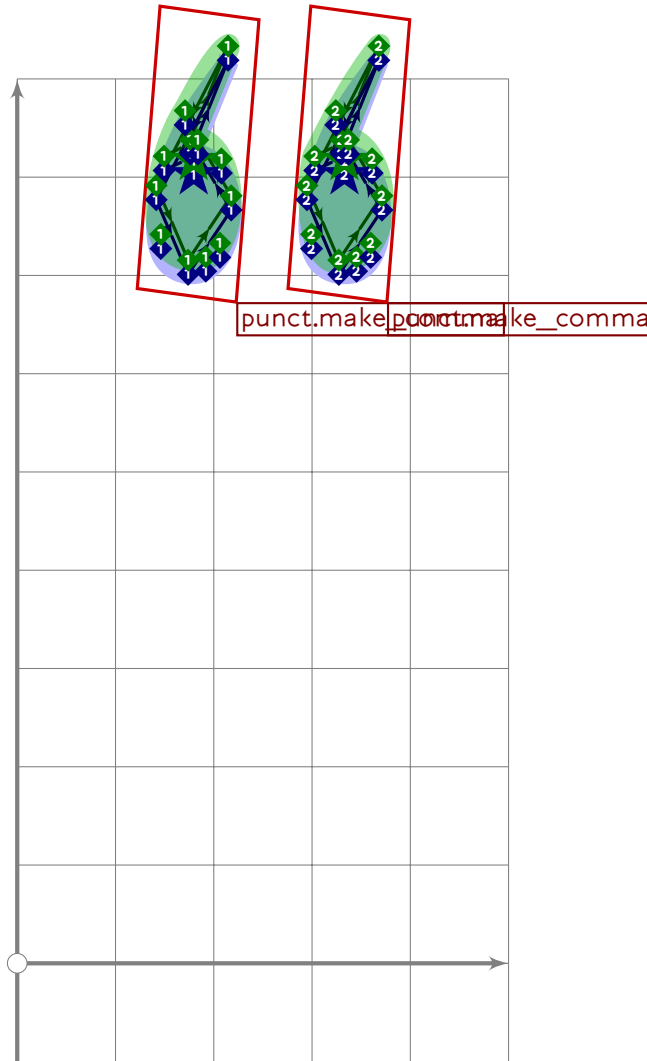
```
97 % high-9
98 begintsuglyph("quoteright";25);
99   punct.make_comma((480,vmetric(0.94)),0);
100   tsu_render;
101 endsuglyph;
102
```



```
103 % low-9
104 begint Suglyph('quotesinglbase',26);
105   punct.make_comma((520,ymetric(0.03)),0);
106   tsu_render;
107 endtsuglyph;
108
```



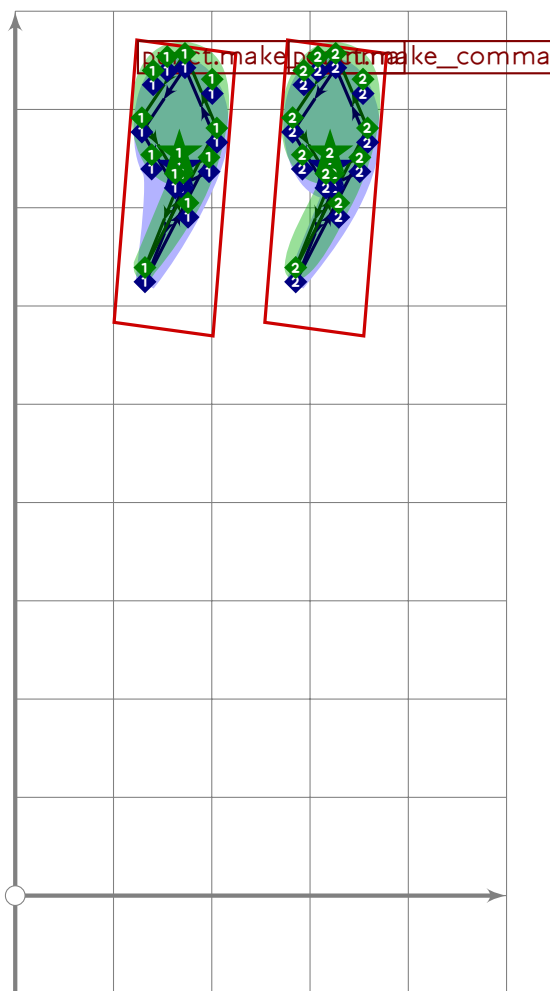
```
109 % high-rev-9
110 begintsuglyph("quotereversed",27);
111   punct.make_revcomma((520,vmetric(0.94)),0);
112   tsu_render;
113 endsuglyph;
114
```



```

115 % high-66
116 begintsuglyph('quotedblleft';28);
117   punct.make_comma((520-tsu_punct_size,vmetric(0.94)),180);
118   punct.make_comma((520+tsu_punct_size,vmetric(0.94)),180);
119   tsu_render;
120 endsuglyph;
121

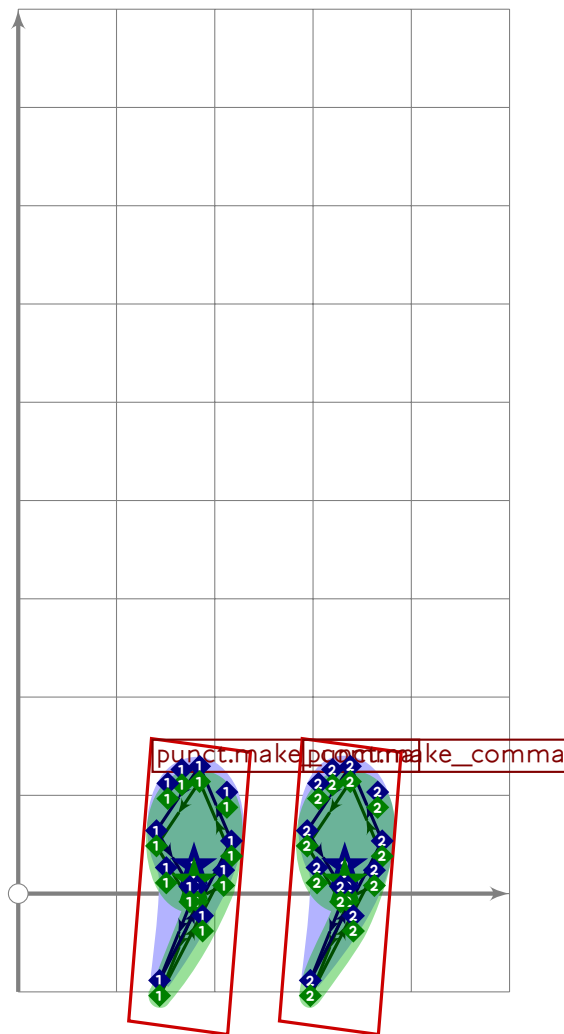
```



```

122 % high-99
123 begintsuglyph("quotedblright";29);
124   punct.make_comma((480-tsu_punct_size,vmetric(0.94)),0);
125   punct.make_comma((480+tsu_punct_size,vmetric(0.94)),0);
126   tsu_render;
127 endtsuglyph;
128

```

```

129 % low-99
130 begint Suglyph("quotedblbase",30);
131   punct.make_comma((520-tsu_punct_size,vmetric(0.03)),0);
132   punct.make_comma((520+tsu_punct_size,vmetric(0.03)),0);
133   tsu_render;
134 endtsuglyph;
135

```



```

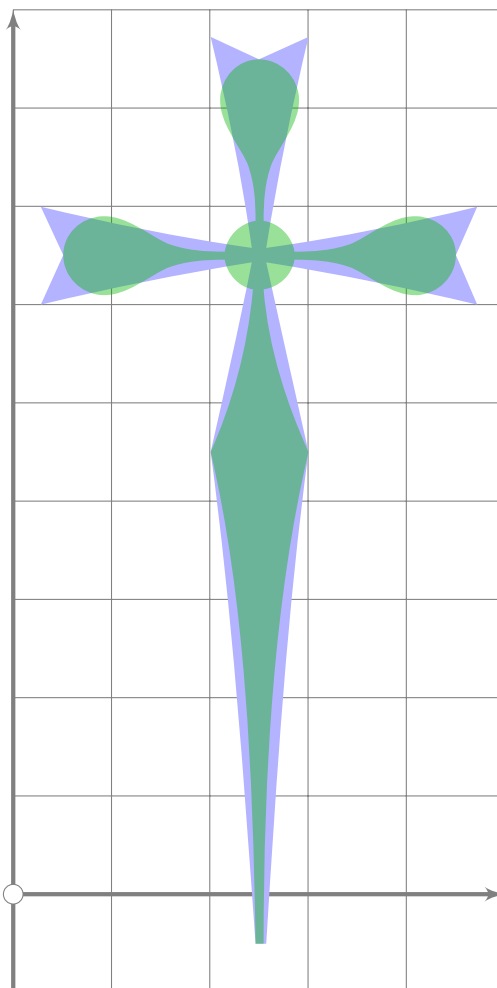
136 % high-rev-99
137 begint Suglyph("quotedblreversed";31);
138 punct.make_revcomma((520-tsu_punct_size,vmetric(0.94)),0);
139 punct.make_revcomma((520+tsu_punct_size,vmetric(0.94)),0);
140 tsu_render;
141 endtsuglyph;
142
143 % WARNING changing rescale setting
144 tsu_rescale_native_narrow;
145
146 vardef dagger_spur =
147   if sharp_corners:
148     dagger_x:=(tsu_punct_size-60)*1.25;
149     if dagger_x<12: dagger_x:=15; fi;
150     (4,mincho*30){curl 0}..
151     (0.5[(0,mincho*20),(dagger_x,222-mincho*72)]+mincho*(-7,4))..
152     {curl 1}(dagger_x,222-mincho*72)-(0,200)-
153     (-dagger_x,222-mincho*72){curl 1}..
154     (0.5[(0,mincho*20),(-dagger_x,222-mincho*72)]+mincho*(7,4))..
155     {curl 0}(-4,mincho*30)-cycle
156   else:

```

```

157 dagger_x:=tsu_punct_size-60;
158 if dagger_x<12: dagger_x:=15; fi;
159 (4,mincho*30){curl 0}..
160   (0.5[(0,mincho*20),(dagger_x,160)]+mincho*(-74))..
161   (dagger_x,160)..(0,200)..(-dagger_x,160)..
162   (0.5[(0,mincho*20),(-dagger_x,160)]+mincho*(74))..
163   {curl 0}(-4,mincho*30)-cycle
164 fi
165 enddef;
166

```



```

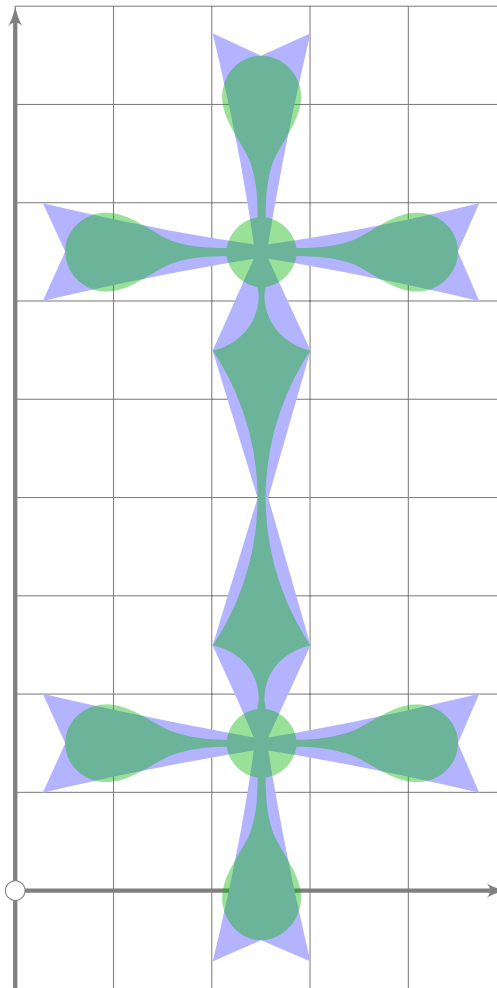
167 % dagger
168 begintsuglyph("dagger",32);
169 begingroup
170   save tsx;
171   transform tsx;
172
173   tsx:=tsu_slant_xform;
174
175   dangerousFill (dagger_spur rotated 90 shifted (250,650)
176     transformed tsx);
177   dangerousFill (dagger_spur shifted (250,650)

```

```

178     transformed tsx);
179 dangerousFill (dagger_spur rotated -90 shifted (250,650)
180     transformed tsx);
181 dangerousFill (fullcircle scaled (20+mincho*50) shifted (250,650)
182     transformed tsx);
183
184 x1=x5=246;
185 x3=250-(tsu_punct_size-60)*1.25;
186 x2=x4=0.5[x1,x3];
187 x6=x10=500-x1;
188 x7=x9=500-x2;
189 x8=500-x3;
190 x11=x12=0.4[250,x3];
191 x13=x14=500-x11;
192
193 y1=y10=650;
194 y2=y9=550;
195 y3=y8=450;
196 y4=y7=250;
197 y5=y6=-50;
198 y11=y14=535;
199 y12=y13=280;
200
201 dangerousFill (interpath(mincho,
202     z1-z2-z3-z4-z5-z6-z7-z8-z9-z10-cycle,
203     z1{curl 1}..z11.{curl 1}z3{curl 1}..z12..{curl 0}z5-
204     z6{curl 0}..z13..{curl 1}z8{curl 1}..z14..{curl 1}z10-cycle)
205     transformed tsx);
206 endgroup;
207 endtsuglyph;
208

```



```

209 % double dagger
210 begintsuglyph("daggerdbl";33);
211 begingroup
212   save x,y,tsx;
213   numeric x[],y[];
214   transform tsx;
215
216   tsx:=tsu_slant_xform;
217
218   dangerousFill (dagger_spur rotated 90 shifted (250,650)
219     transformed tsx);
220   dangerousFill (dagger_spur shifted (250,650)
221     transformed tsx);
222   dangerousFill (dagger_spur rotated -90 shifted (250,650)
223     transformed tsx);
224   dangerousFill (fullcircle scaled (20+mincho*50) shifted (250,650)
225     transformed tsx);
226   dangerousFill (dagger_spur rotated -90 shifted (250,150)
227     transformed tsx);
228   dangerousFill (dagger_spur rotated 180 shifted (250,150)
229     transformed tsx);

```

```

230     dangerousFill (dagger_spur rotated 90 shifted (250,150)
231         transformed tsx);
232     dangerousFill (fullcircle scaled (20+mincho*50) shifted (250,150)
233         transformed tsx);
234
235     x1=x4=x7=246;
236     x3=x5=250-(tsu_punct_size-60)*1.25;
237     x2=x6=0.5[x1,x3];
238     x8=x11=x14=500-x1;
239     x9=x13=500-x2;
240     x10=x12=500-x3;
241
242     y1=y14=650-mincho*30;
243     y3=y12=550;
244     y2=y13=0.5[y1,y3];
245     y4=y11=400;
246     y5=y10=800-y3;
247     y6=y9=800-y2;
248     y7=y8=800-y1;
249
250     x15=x16=x2+7*mincho;
251     x17=x18=500-x15;
252
253     y15=y18=y2-20*mincho;
254     y16=y17=800-y15;
255
256     dangerousFill (interpath(mincho,
257         z1-z2-z3-z4-z5-z6-z7-z8-z9-z10-z11-z12-z13-z14-cycle,
258         z1{curl 1}..z15.{curl 1}z3{curl 1}..z4..
259         {curl 1}z5{curl 1}..z16.{curl 1}z7-
260         z8{curl 1}..z17.{curl 1}z10{curl 1}..z11..
261         {curl 1}z12{curl 1}..z18.{curl 1}z14-cycle)
262         transformed tsx);
263     endgroup;
264 endtsuglyph;
265
266 % WARNING changing rescale setting
267 tsu_rescale_full;
268
269 % euro symbol
270 begintsuglyph("Euro",172);
271     punct.euro;
272     tsu_render;
273 endtsuglyph;
274
275
276
277 endfont;

```

[see page 387]

278

279

tsuku-21.mp

21

```
1 %
2 % Unicode page 21 (Symbols) for Tsukurimashou
3 % Copyright (C) 2011, 2012, 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---

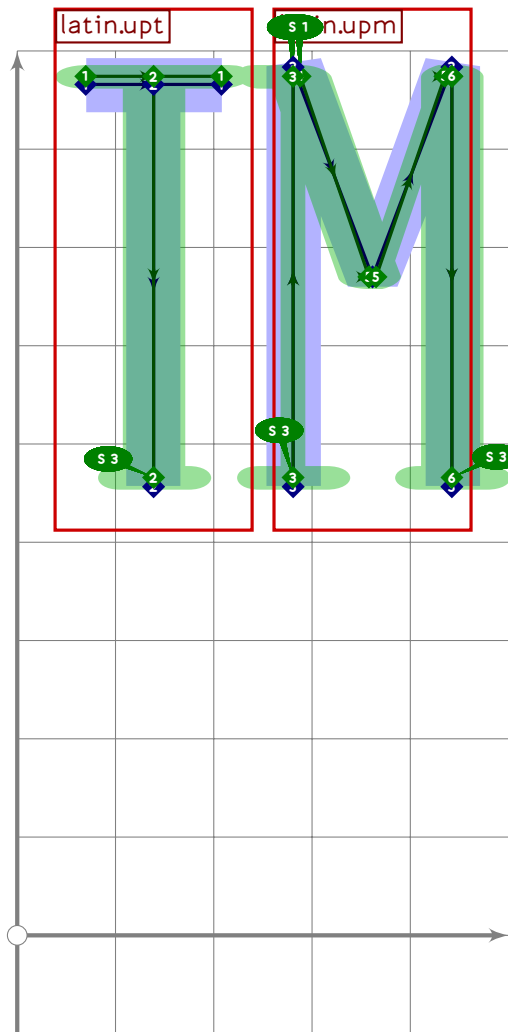

32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input latin.mp;
39 input punct.mp;
40
41 do_late_includes;
42
43 

---


44
```

Symbols Required By Mes-1

```
45 % SYMBOLS REQUIRED BY MES-1
46
47 % WARNING changing rescale setting
48 tsu_rescale_half;
49
```

```

50 % trademark symbol
51 begintsuglyph("trademark";34);
52 tsu_xform(identity scaled 0.5 shifted (0,400))(latin.upt);
53 numeric x[],y[];
54 tsu_xform(identity scaled 0.5 shifted (500,400))(latin.upm);
55 tsu_render;
56 endtsuglyph;
57
58 % ohm (resistance unit) symbol
59 begintsuglyph("uni2126";38);
60 punct.ohm;
61 tsu_render;
62 endtsuglyph;
63
64 % Note: 0x5B through 0x5E, which are x/8 fractions, are assembled by the
65 % assemble-font script
66
67 % WARNING changing rescale setting
68 tsu_rescale_full;
69

```

[see page 395]

U+2190

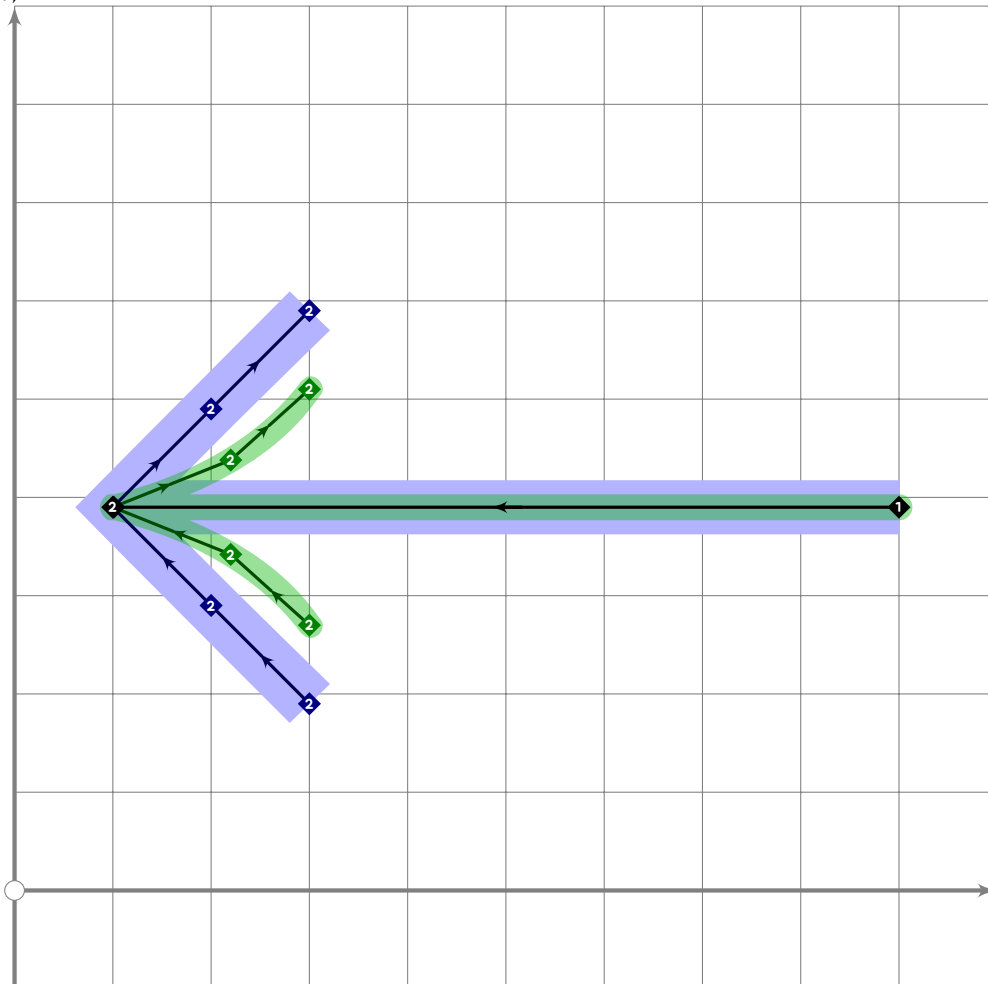
tsuku.arrowleft

21

```

70 vardef arrow(expr rot) =
71   push_stroke(((−4,0)−(399,0))
72     scaled tsu_punct_size rotated rot shifted centre_pt,
73     (1.6,1.6)−(1.6,1.6));
74   set_bobrush(0,bralternate);
75   set_bosize(0,80);
76   push_stroke(((2,2)..((3,1)+(0.2*mincho*(−1,−1)))..
77     {curl 1}(4,0){curl 1}..
78     ((3,1)+(0.2*mincho*(−1,1)))..(2,2))
79     xyscaled (1,1−0.4*mincho)
80     scaled tsu_punct_size rotated rot shifted centre_pt,
81     (1.6,1.6)−(1.6,1.6)−(1.6,1.6)−(1.6,1.6)−(1.6,1.6));
82   set_botip(0,2,1);
83   set_bobrush(0,bralternate);
84   set_bosize(0,80);
85 enddef;

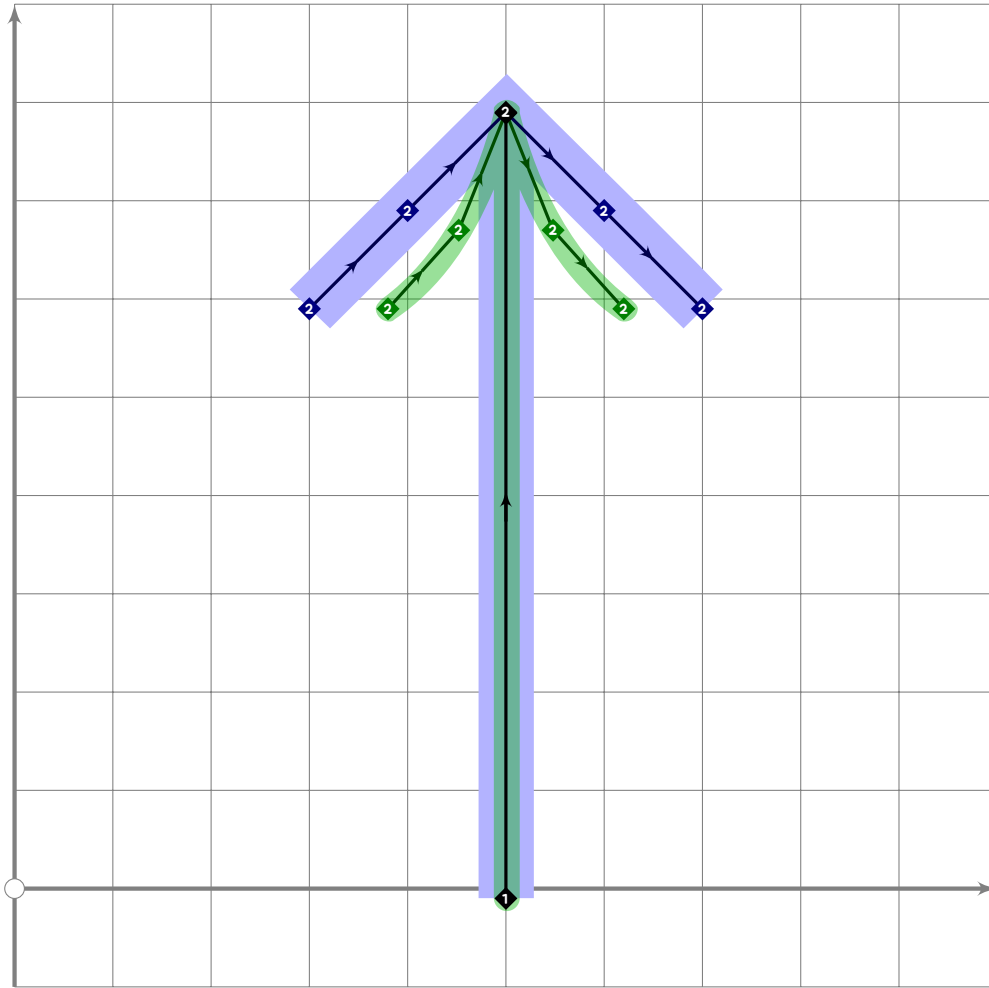
```



```

86
87 begintsuglyph("arrowleft",144);
88   arrow(180);
89   tsu_render;
90 endtsuglyph;

```



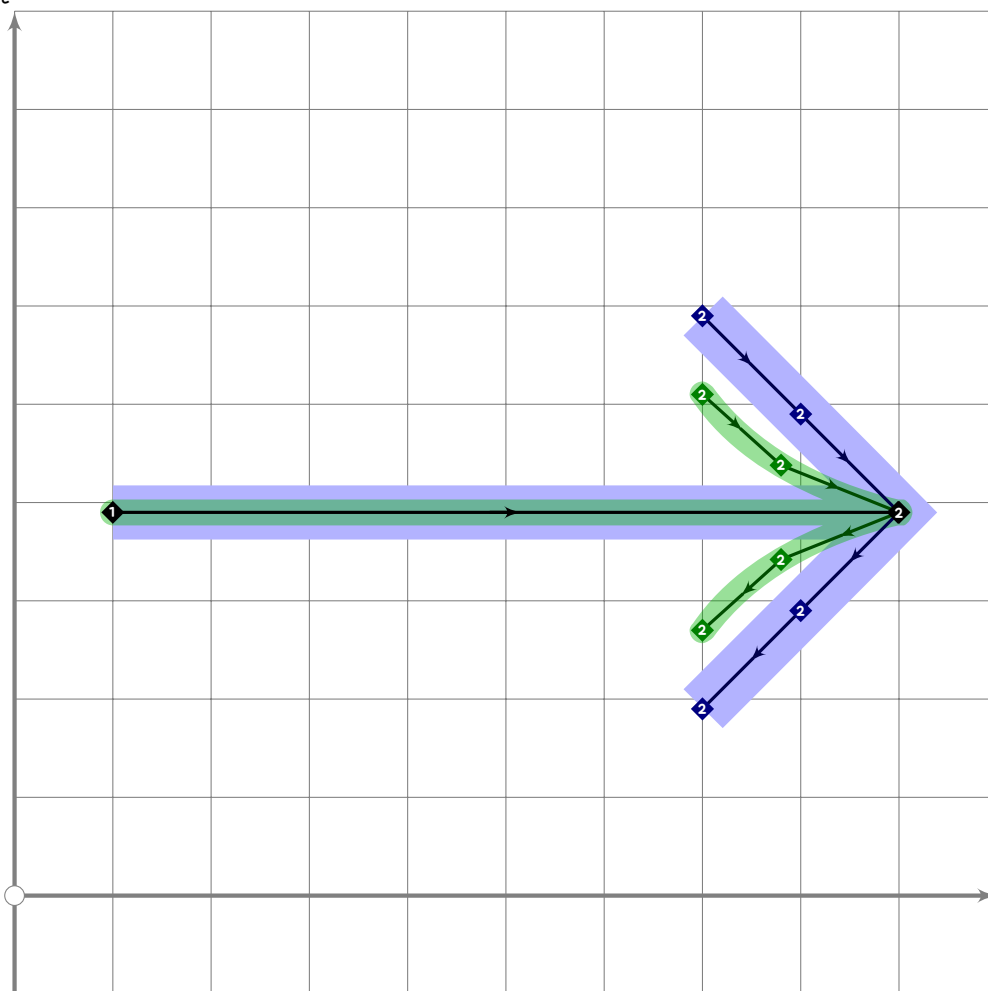
```

91
92 begint Suglyph("arrowup",145);
93   arrow(90);
94   tsu_render;
95 endtsuglyph;

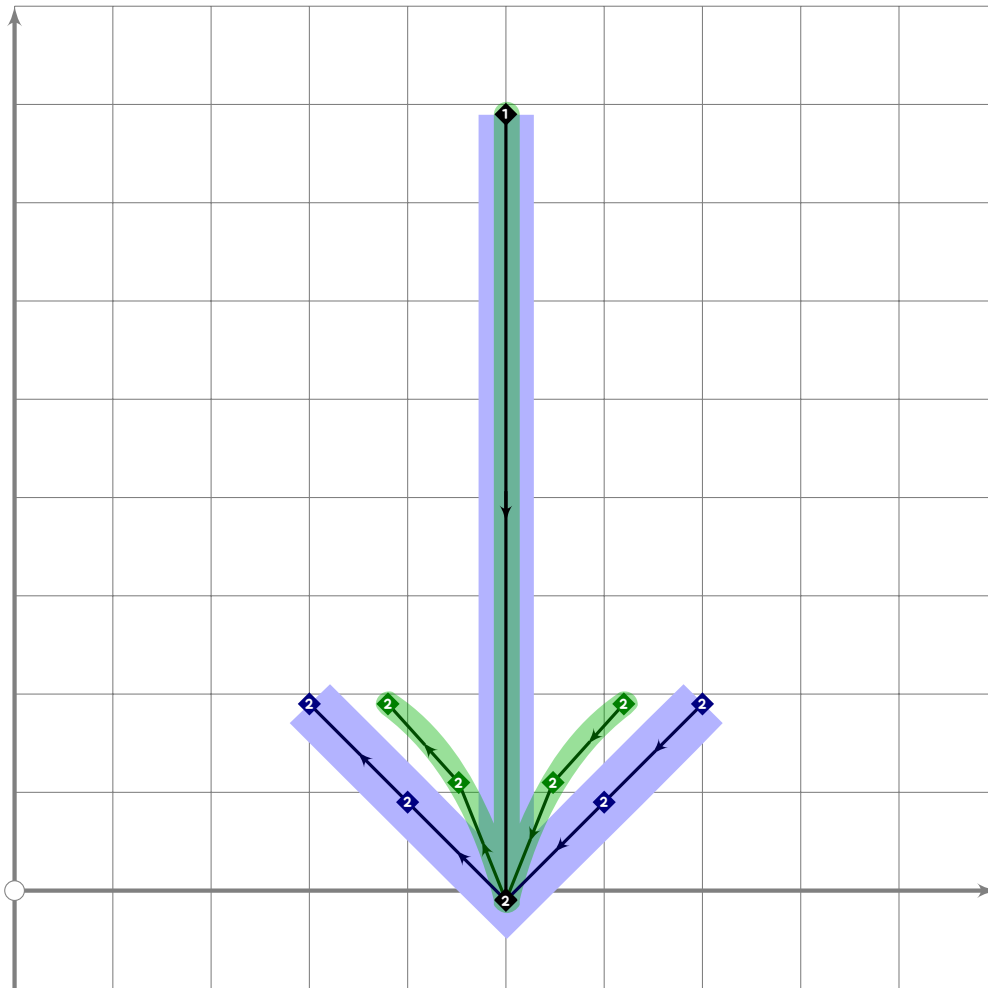
```

U+2192
tsuku.arrowright

21



```
96  
97 begintsuglyph("arrowright",146);  
98   arrow(0);  
99   tsu_render;  
100 endtsuglyph;
```



```

101
102 begint Suglyph("arrowdown",147);
103   arrow(270);
104   tsu_render;
105 endtsuglyph;
106
107 _____
108
109 endfont;
110
111 _____

```

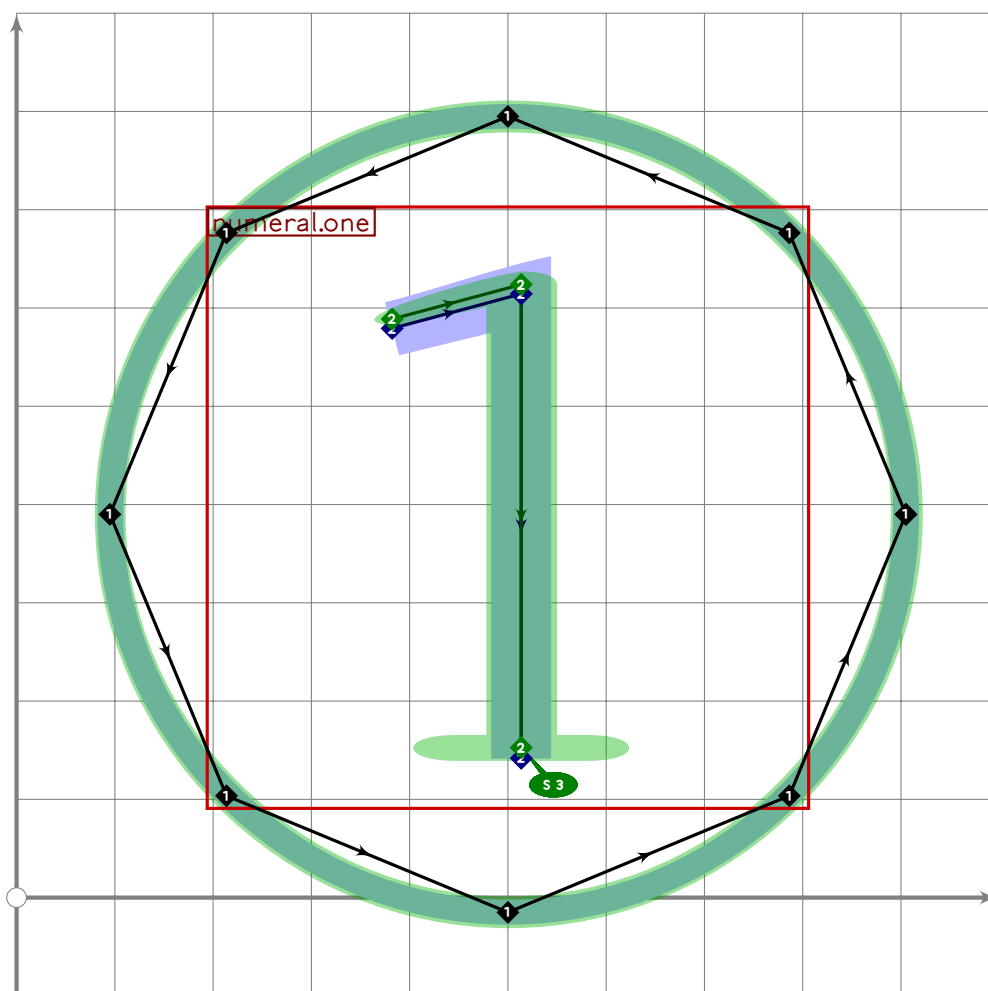
tsuku-24.mp

24

```
1 %
2 % Unicode page 24 (Enclosed Numerics) for Tsukurimashou
3 % Copyright (C) 2011, 2012, 2021 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 input numerals.mp;
41
42 do_late_includes;
43
44
45
```

Circled Numerals

```
46 % CIRCLED NUMERALS
47
```



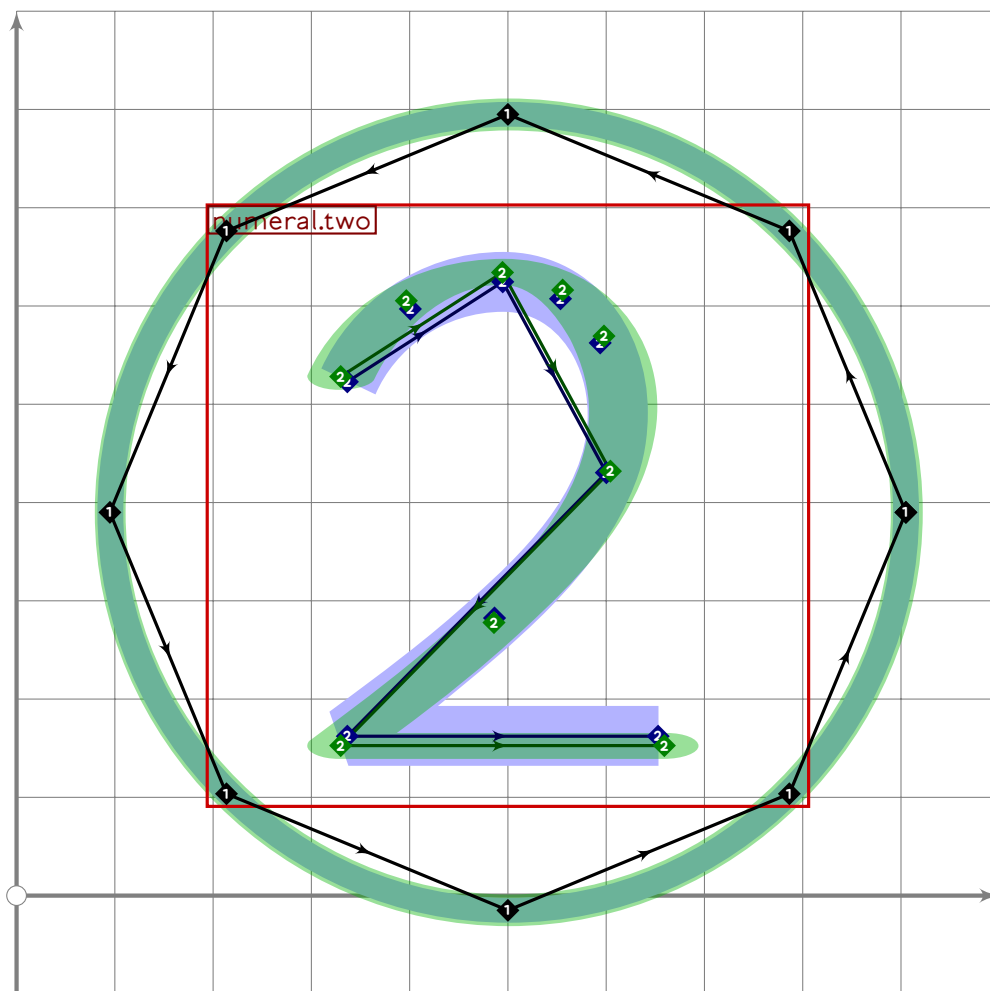
```

48 % 1
49 begintsuglyph("uni2460",96);
50   circle.single;
51   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.one);
52   tsu_render;
53 endtsuglyph;
54

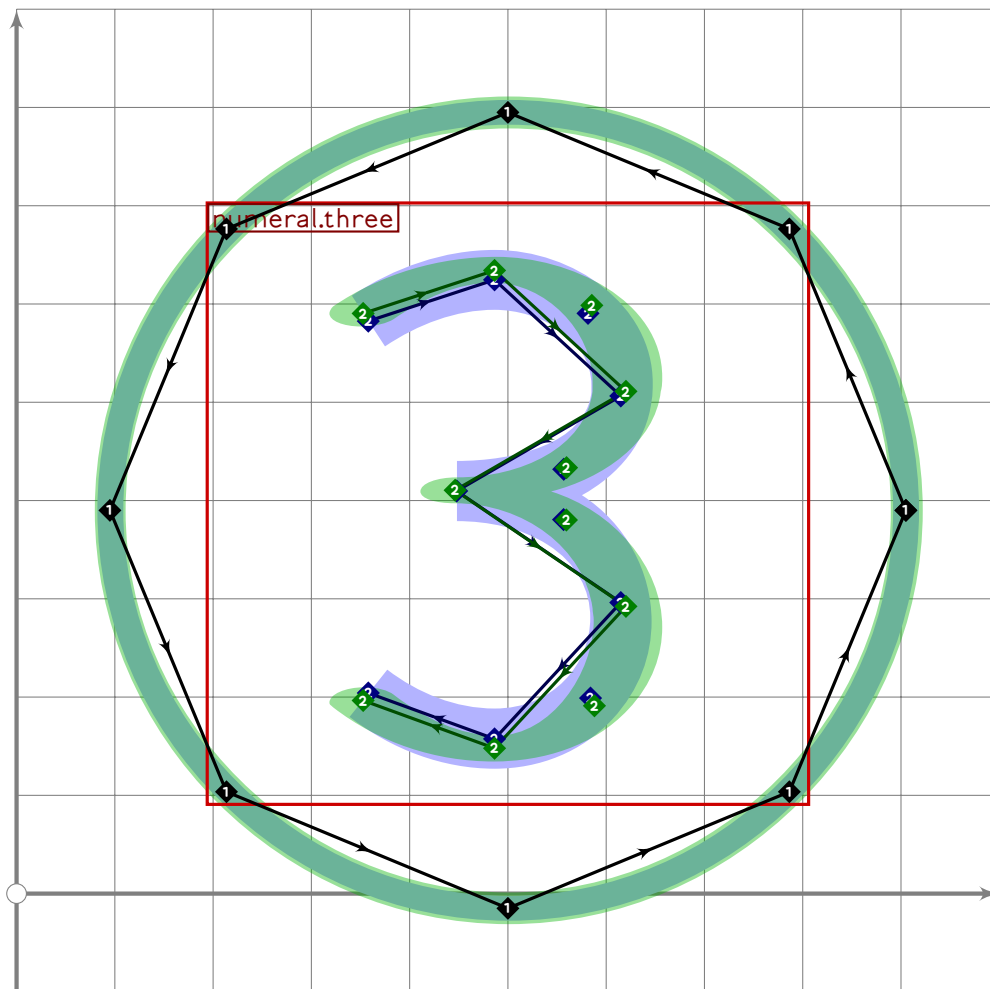
```

U+2461
tsuku.uni2461

24



```
55 % 2
56 begintsuglyph("uni2461";97);
57   circle.single;
58   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.two);
59   tsu_render;
60 endtsuglyph;
61
```

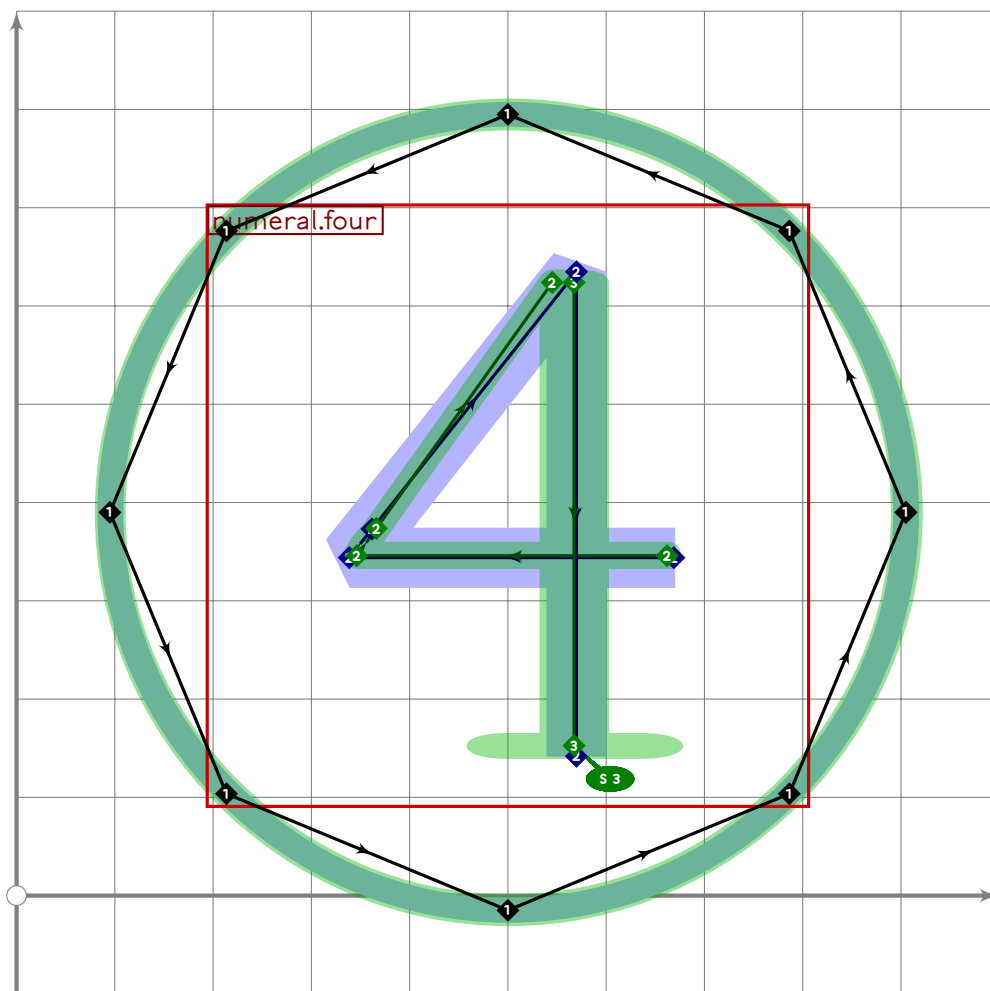
```

62 % 3
63 begintsuglyph("uni2462",98);
64   circle.single;
65   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.three);
66   tsu_render;
67 endtsuglyph;
68

```

U+2463
tsuku.uni2463

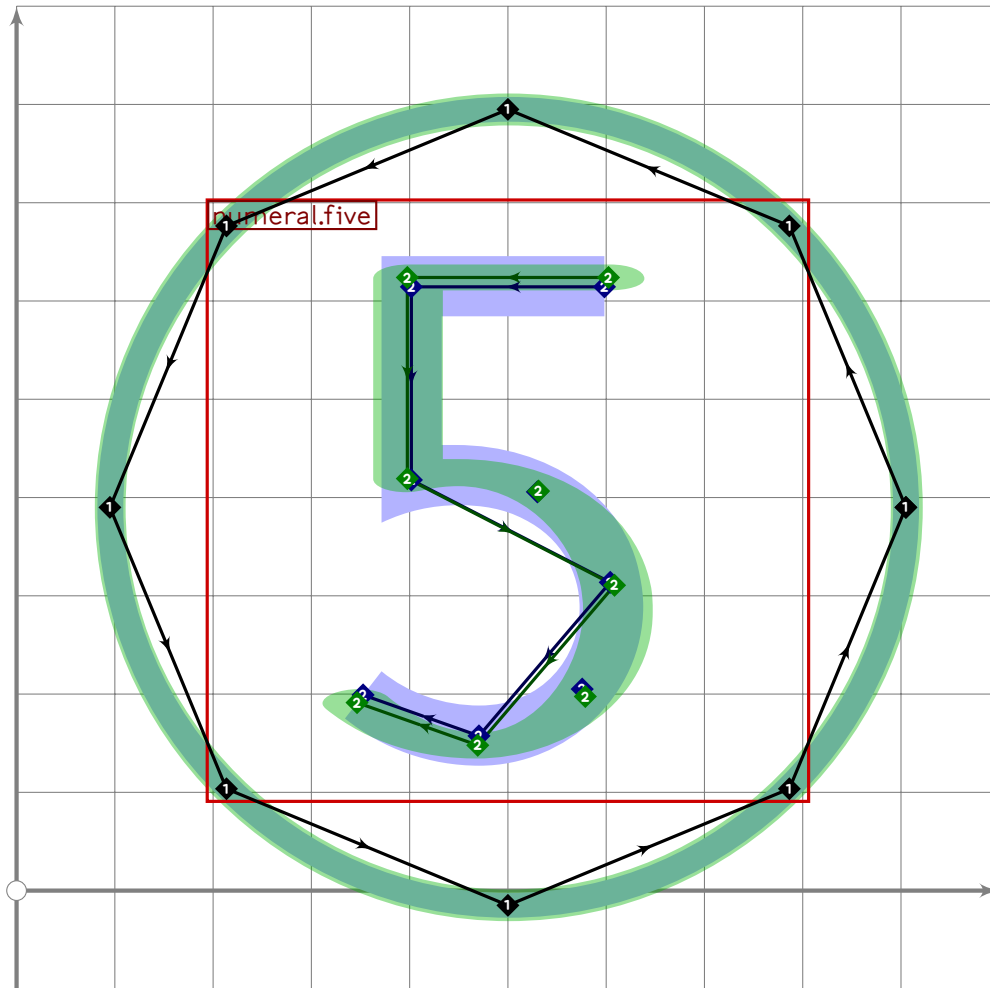
24



```

69 % 4
70 begintsuglyph("uni2463";99);
71   circle.single;
72   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.four);
73   tsu_render;
74 endtsuglyph;
75

```



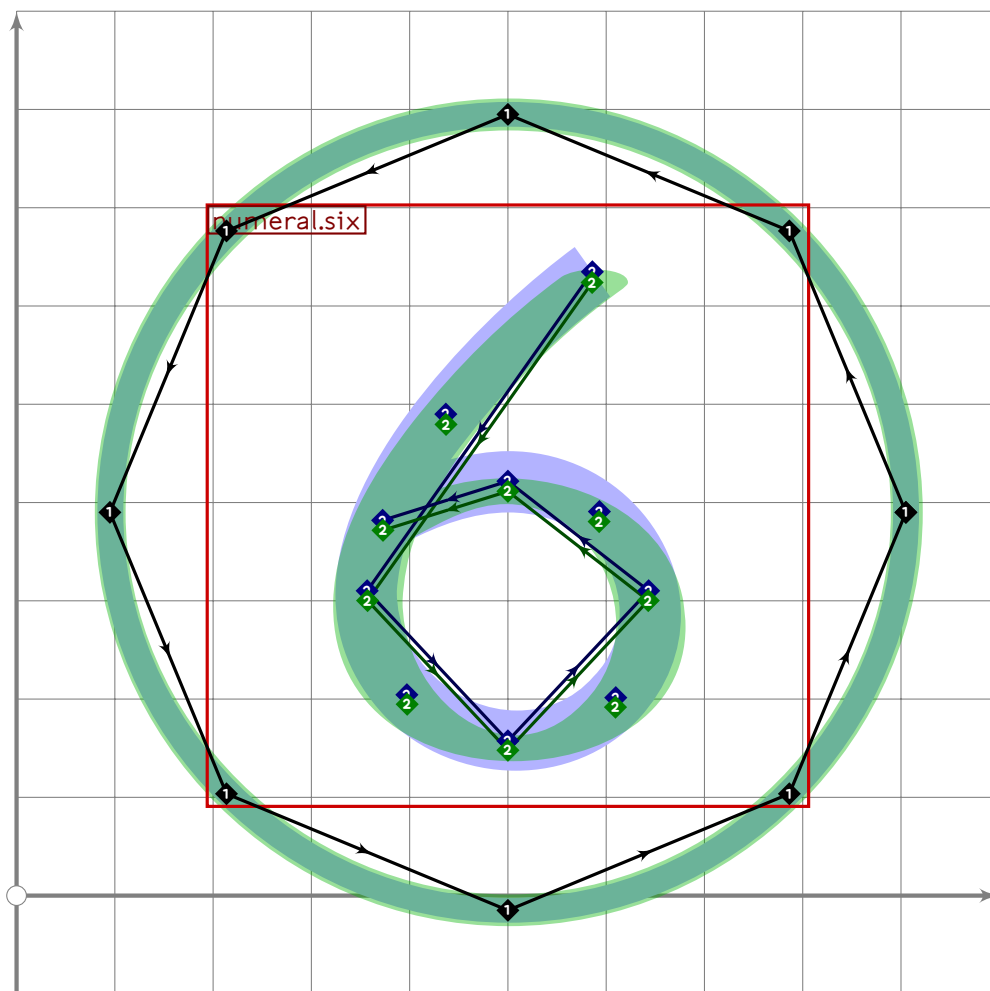
```

76 % 5
77 begintsuglyph("uni2464",100);
78   circle.single;
79   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.five);
80   tsu_render;
81 endtsuglyph;
82

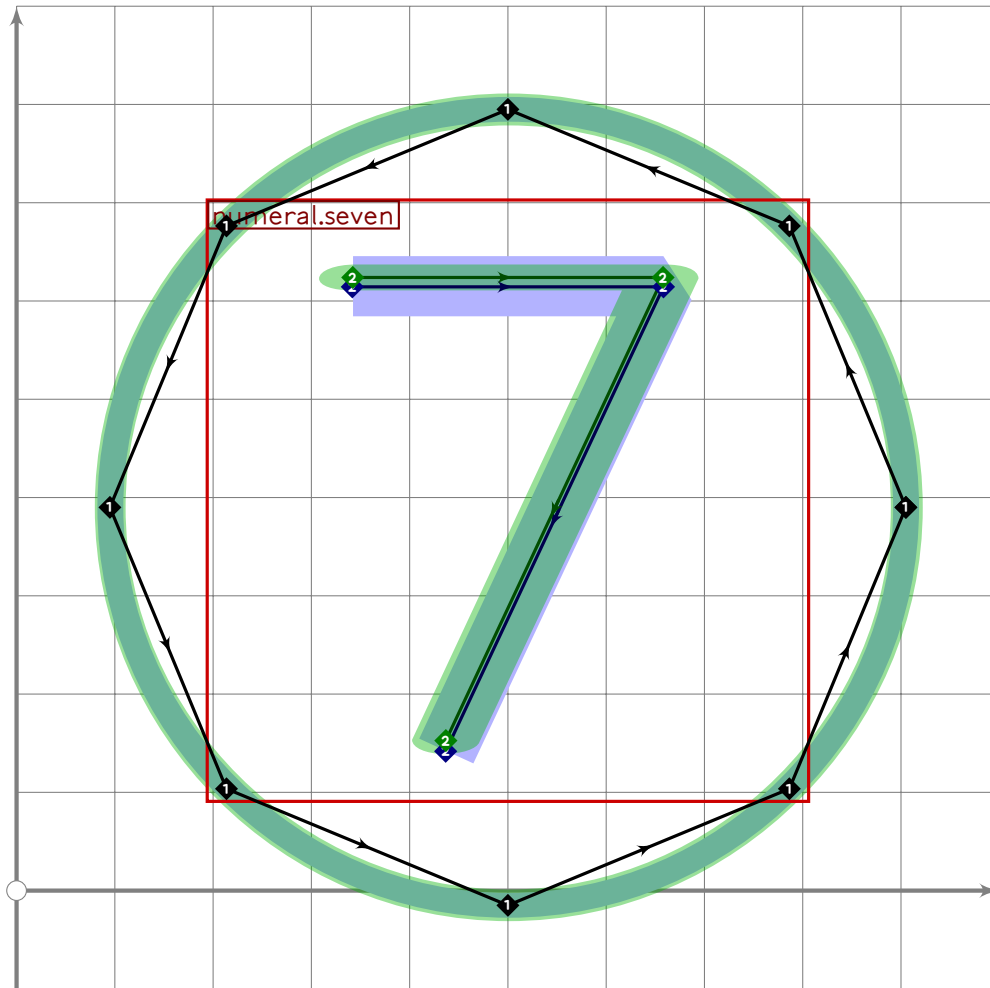
```

U+2465
tsuku.uni2465

24



```
83 % 6
84 begintsuglyph("uni2465";101);
85   circle.single;
86   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.six);
87   tsu_render;
88 endtsuglyph;
89
```



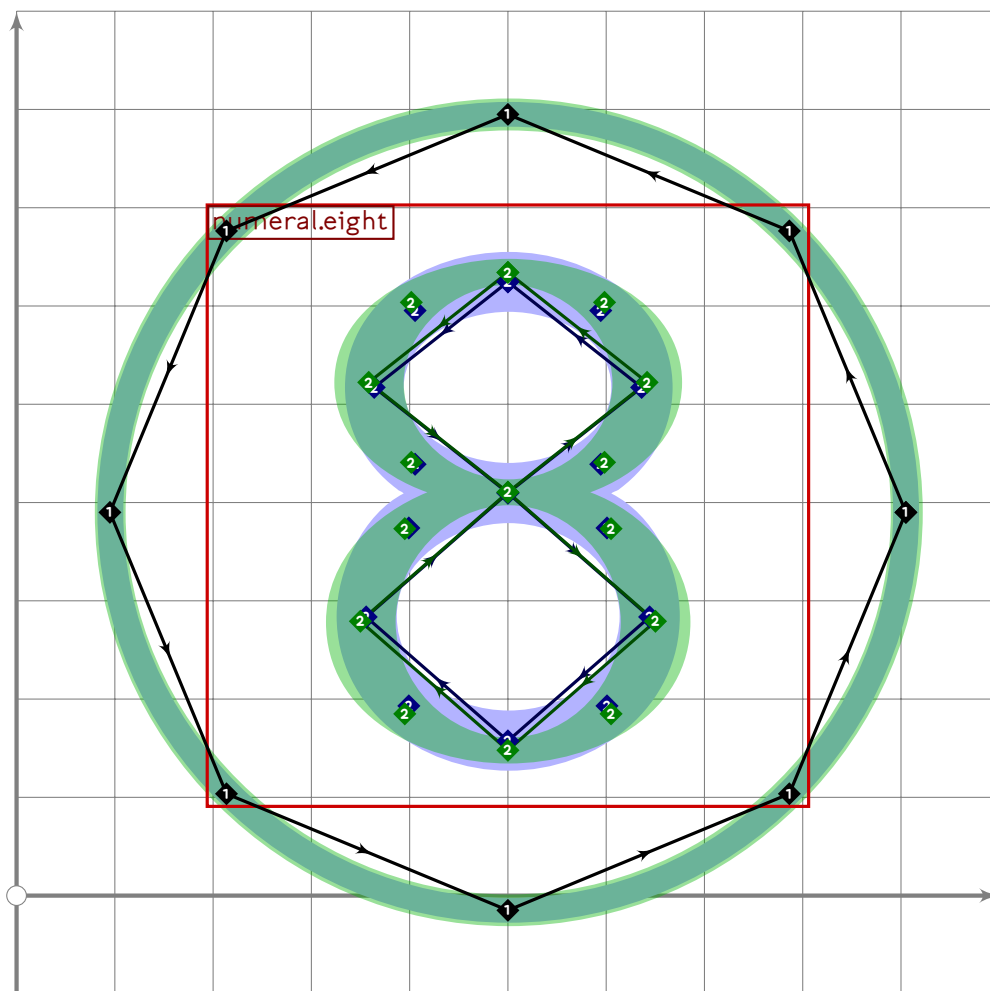
```

90 % 7
91 begintsuglyph("uni2466",102);
92   circle.single;
93   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.seven);
94   tsu_render;
95 endtsuglyph;
96

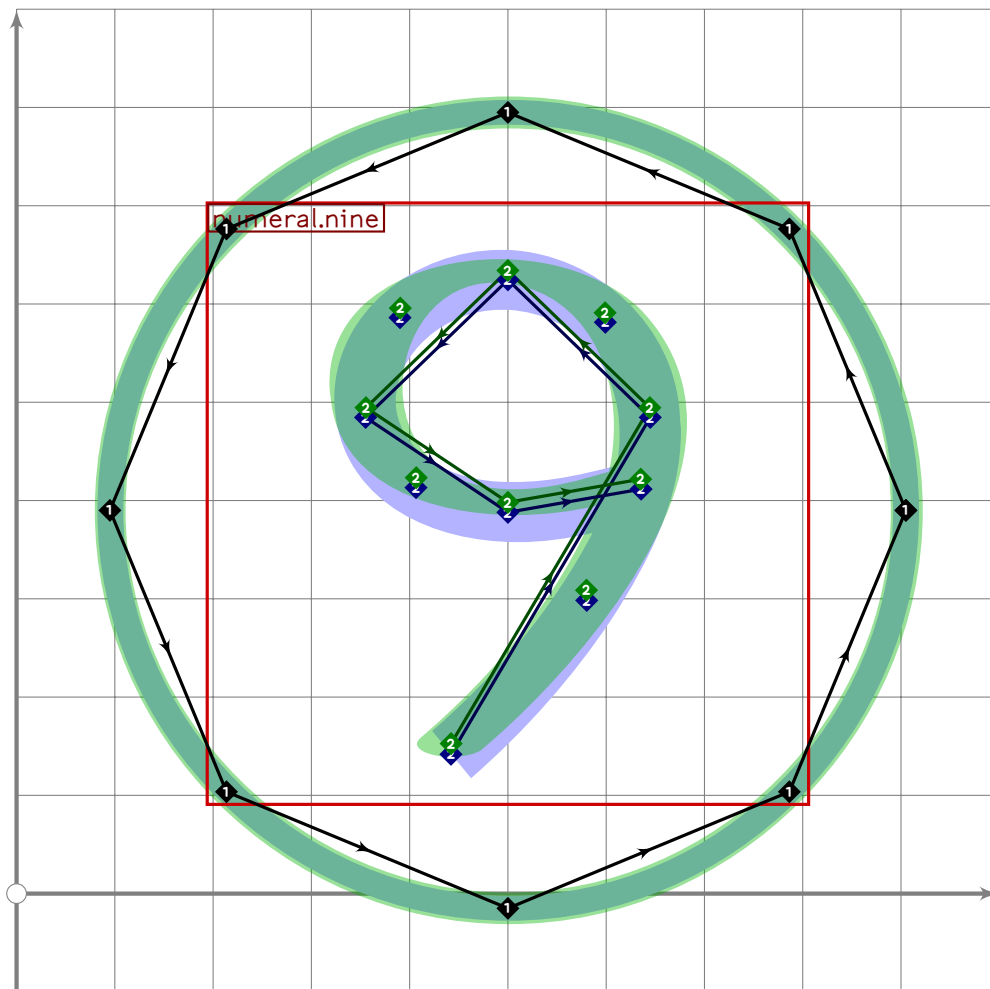
```

U+2467
tsuku.uni2467

24



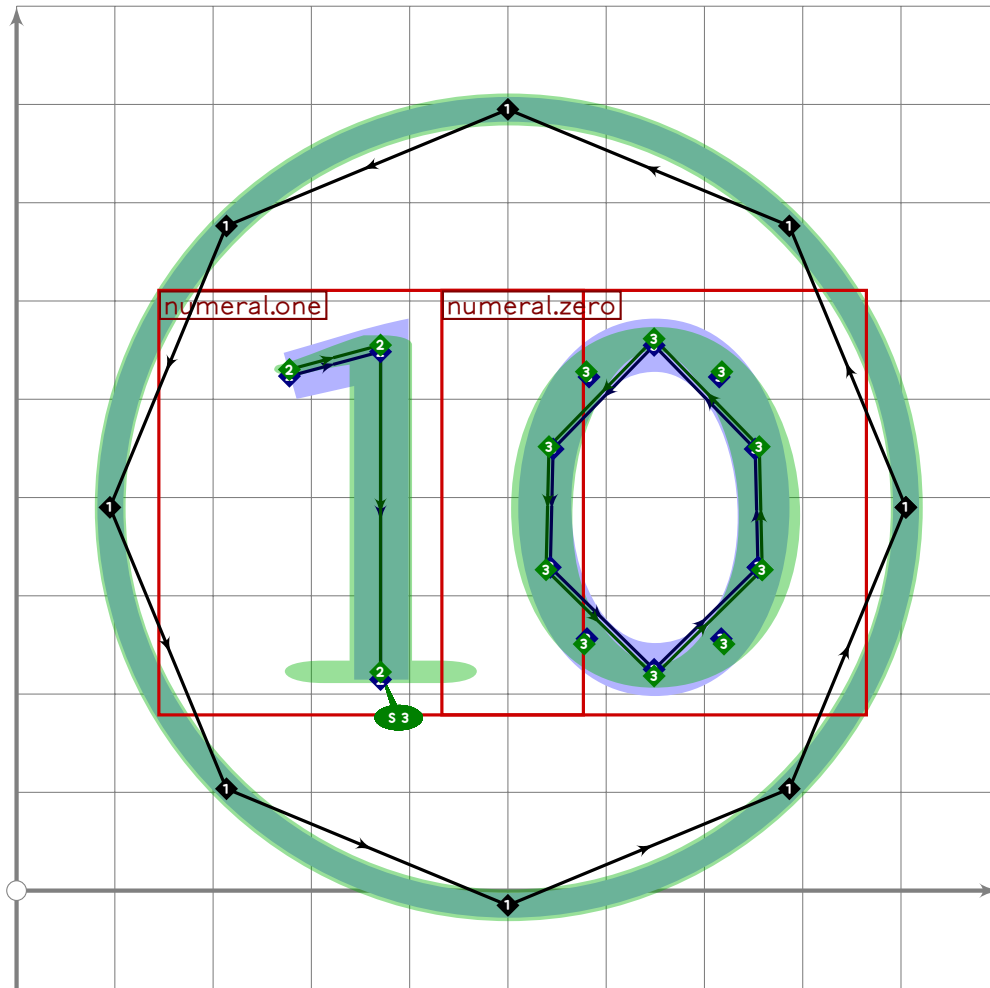
```
97 % 8
98 begintsuglyph("uni2467";103);
99   circle.single;
100   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.eight);
101   tsu_render;
102 endtsuglyph;
103
```



```

104 % 9
105 begintsuglyph("uni2468",104);
106   circle.single;
107   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.nine);
108   tsu_render;
109 endtsuglyph;
110

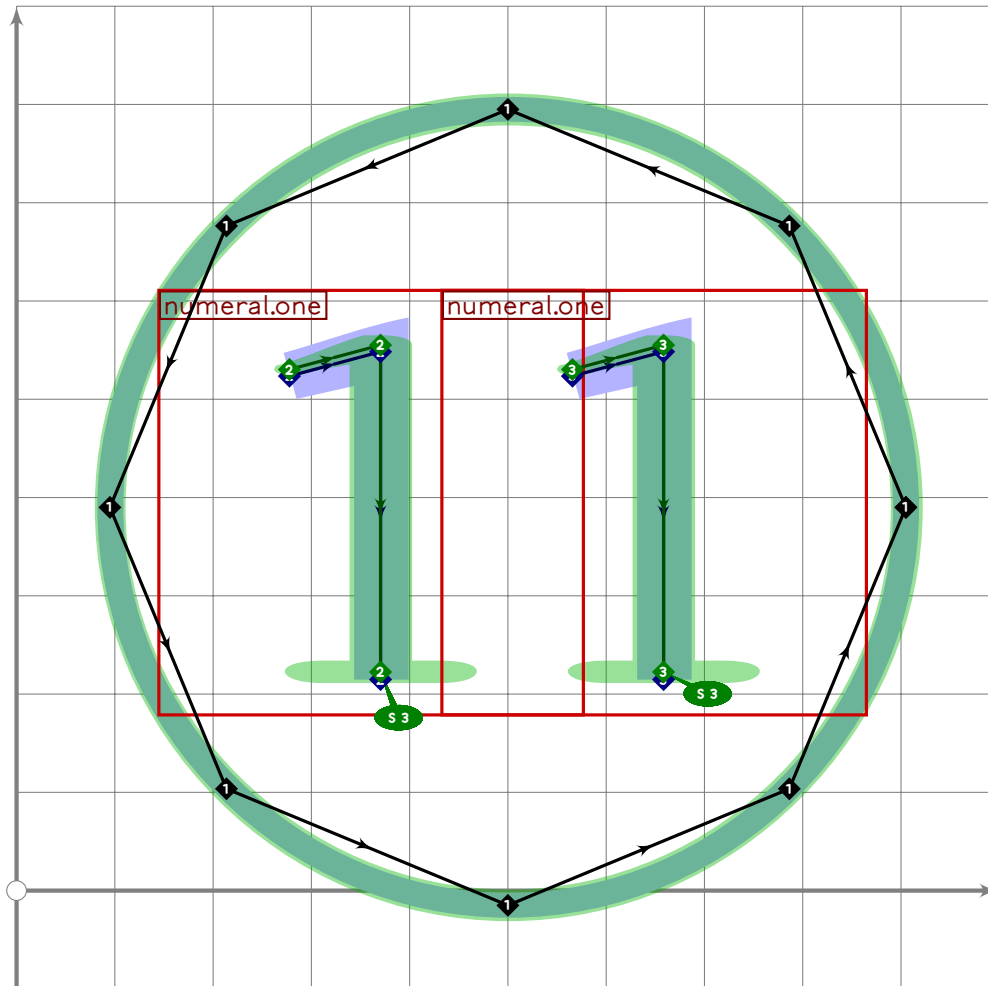
```



```

111 % 10
112 beginsuglyph("uni2469",105);
113   circle.single;
114   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
115   numeric x[],y[];
116   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
117   tsu_render;
118 endtsuglyph;
119

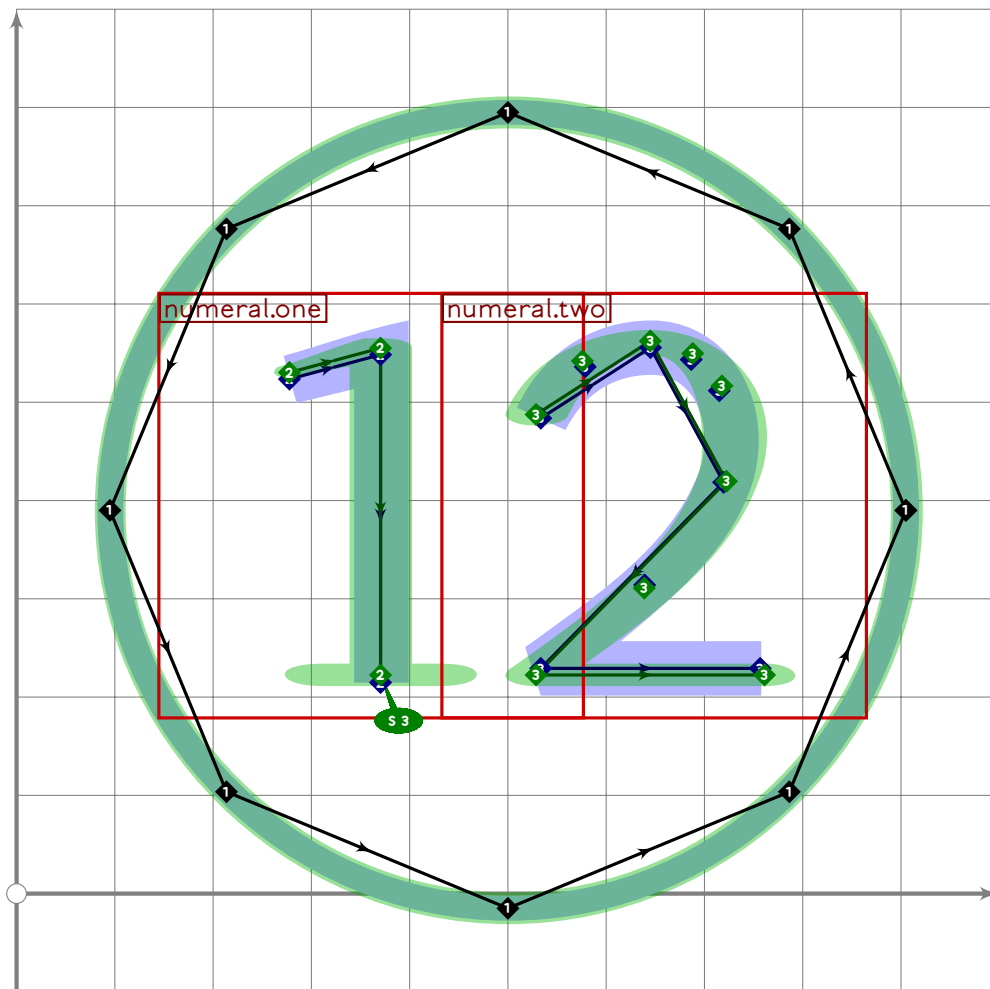
```

```

120 % 11
121 begintsuglyph("uni246A",106);
122   circle.single;
123   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
124   numeric x[],y[];
125   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.one);
126   tsu_render;
127 endtsuglyph;
128

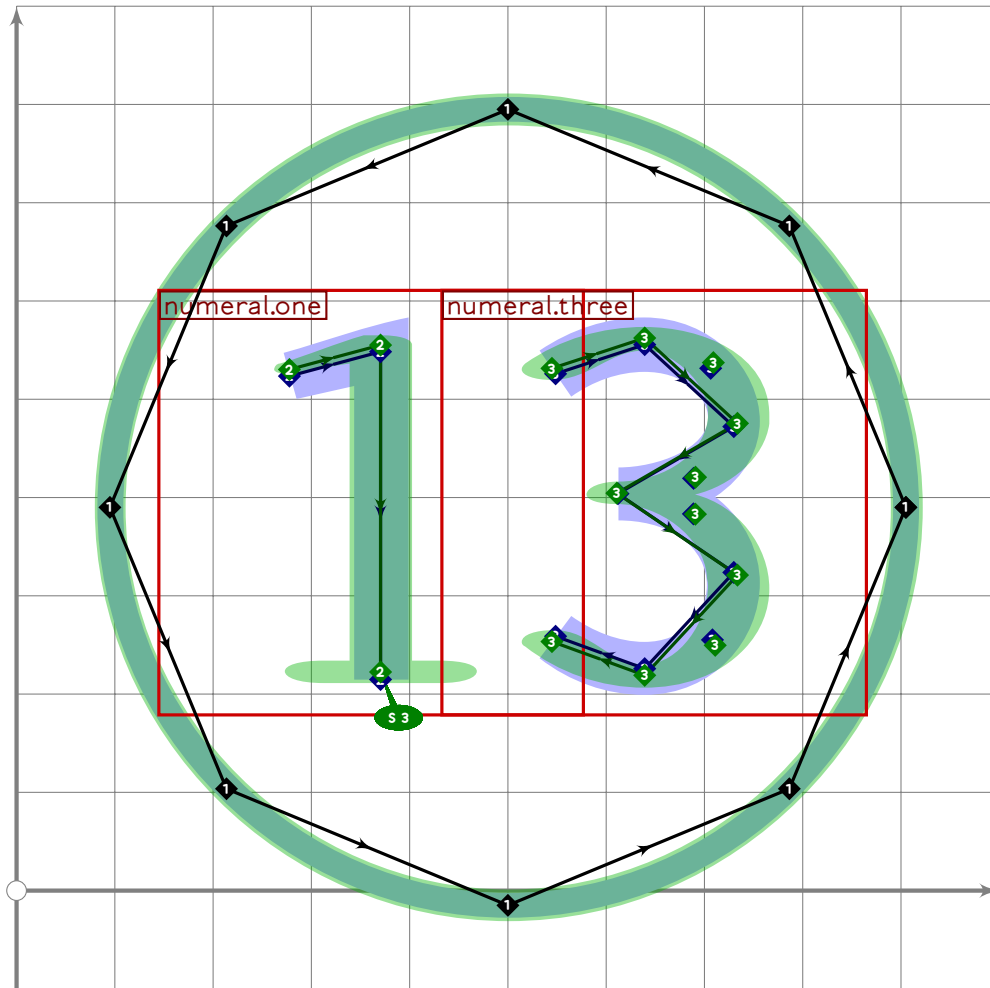
```



```

129 % 12
130 beginsuglyph("uni246B",107);
131   circle.single;
132   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
133   numeric x[],y[];
134   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.two);
135   tsu_render;
136 endtsuglyph;
137

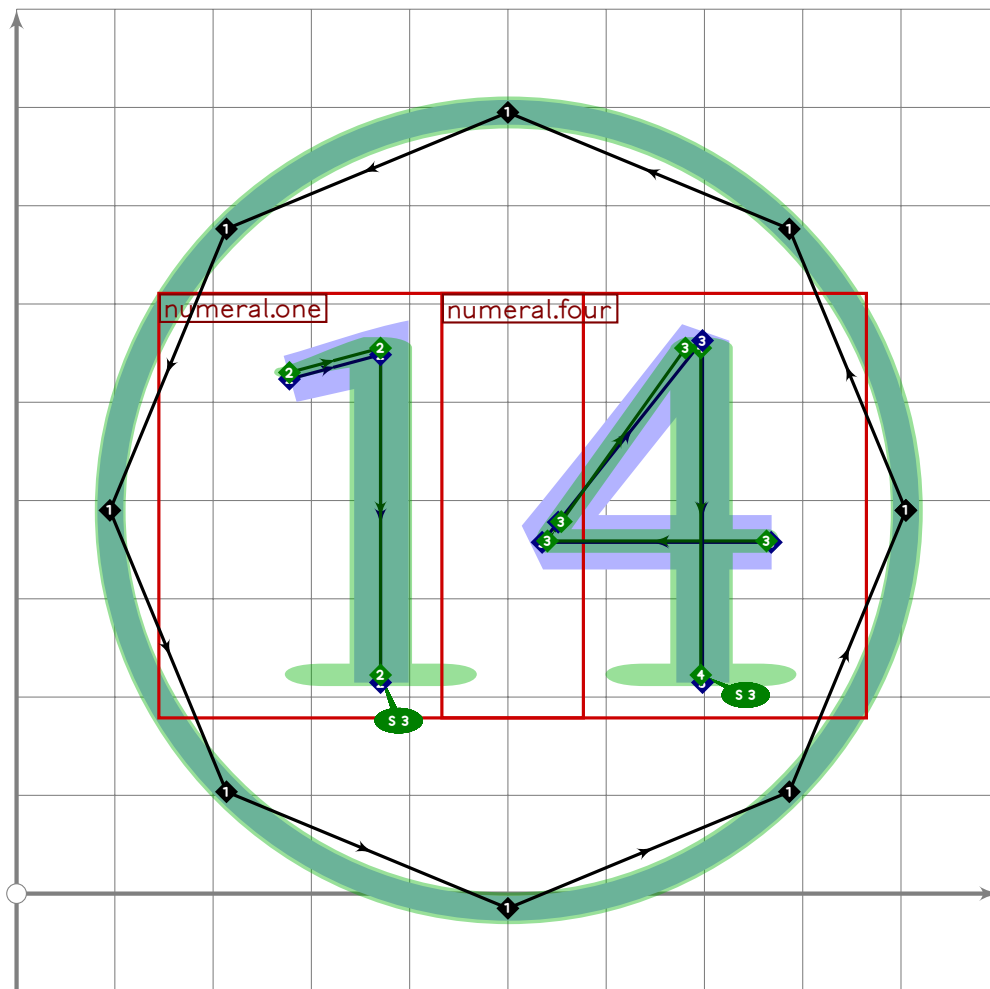
```



```

138 % 13
139 begint Suglyph("uni246C",108);
140   circle.single;
141   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
142   numeric x[],y[];
143   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)
144     (numeral.three);
145   tsu_render;
146 endtsuglyph;
147

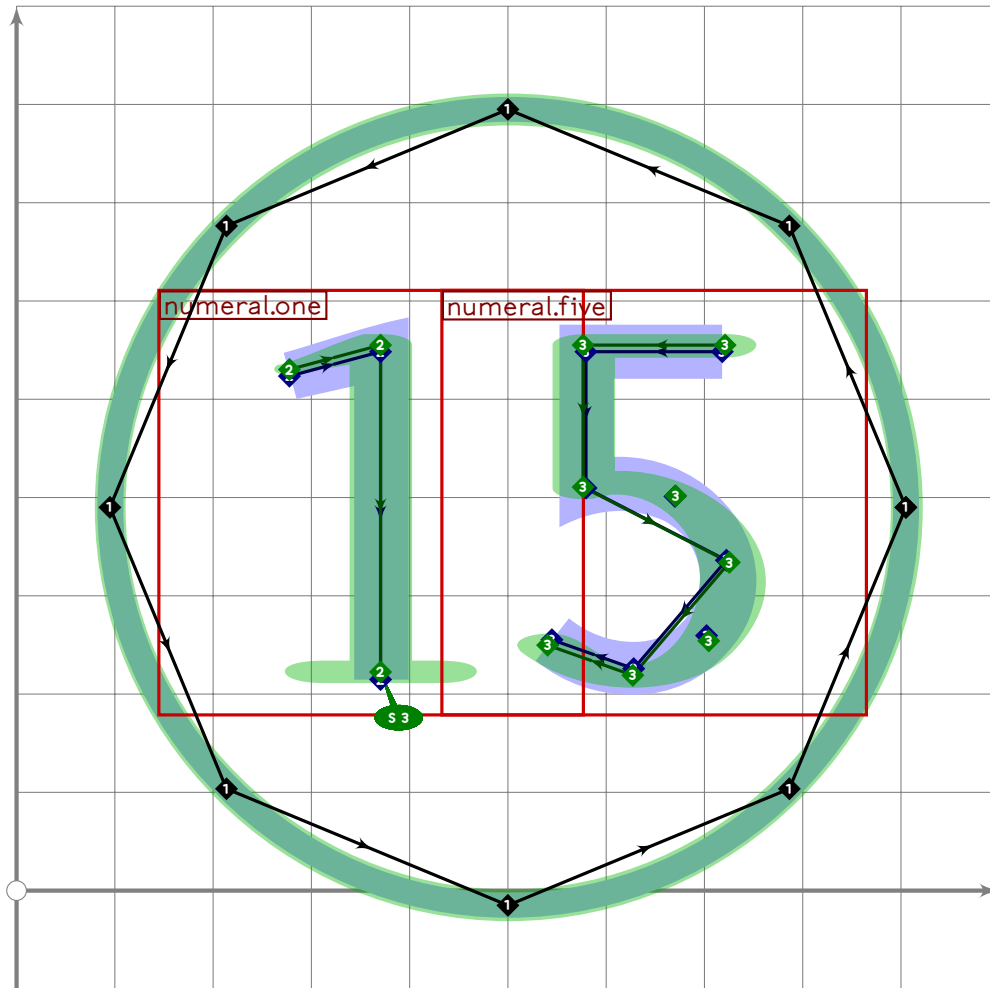
```



```

148 % 14
149 begintsuglyph("uni246D";109);
150   circle.single;
151   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
152   numeric x[],y[];
153   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.four);
154   tsu_render;
155 endtsuglyph;
156

```



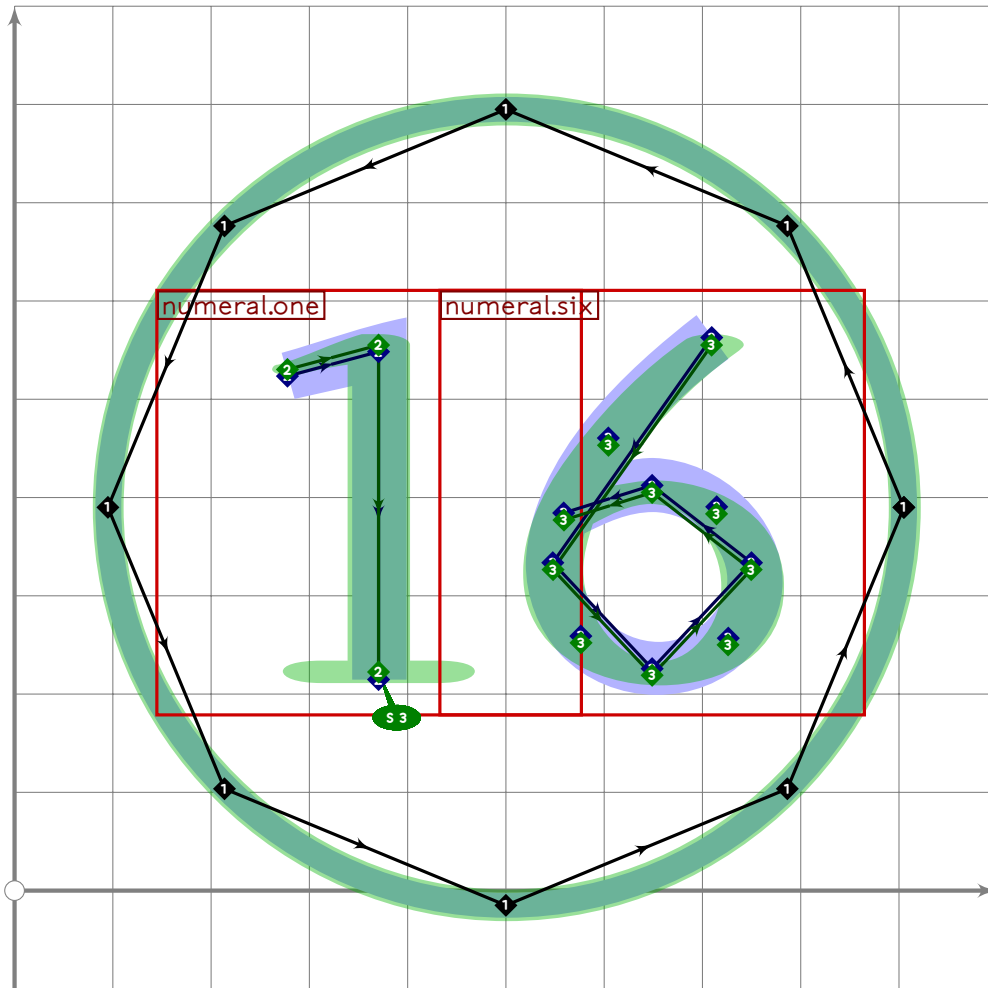
```

157 % 15
158 begintsuglyph("uni246E",110);
159   circle.single;
160   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
161   numeric x[],y[];
162   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.five);
163   tsu_render;
164 endtsuglyph;
165

```

U+246F
tsuku.uni246F

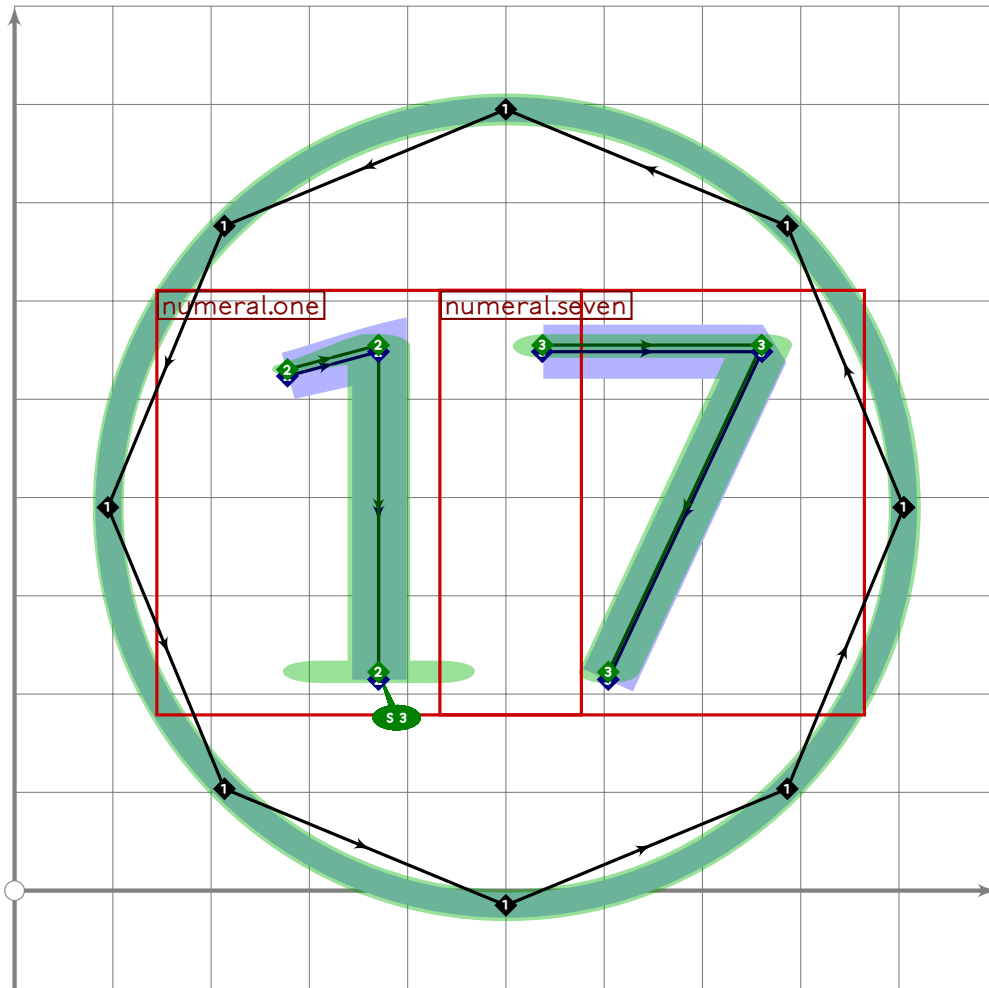
24



```

166 % 16
167 begintuglyph("uni246F",11);
168   circle.single;
169   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
170   numeric x[],y[];
171   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.six);
172   tsu_render;
173 endtuglyph;
174

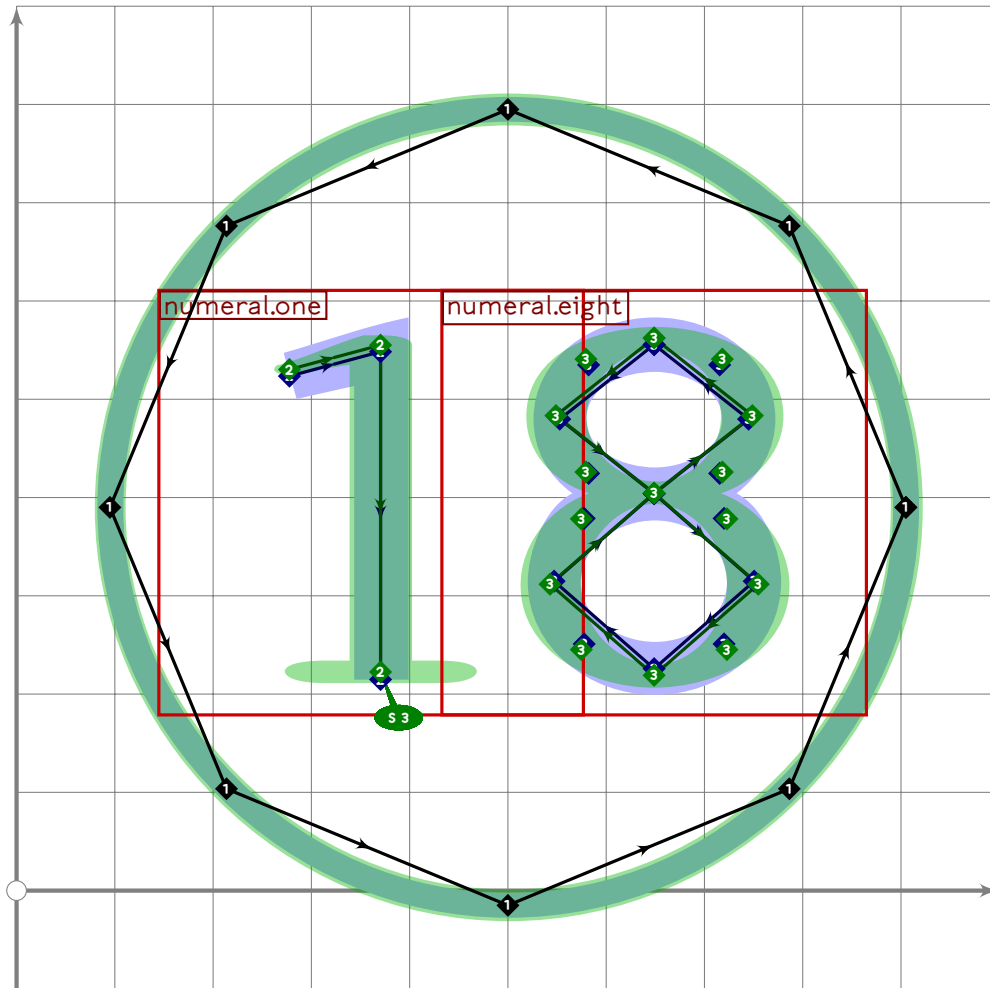
```



```

175 % 17
176 begint Suglyph("uni2470",112);
177   circle.single;
178   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
179   numeric x[],y[];
180   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)
181     (numeral.seven);
182   tsu_render;
183 endtsuglyph;
184

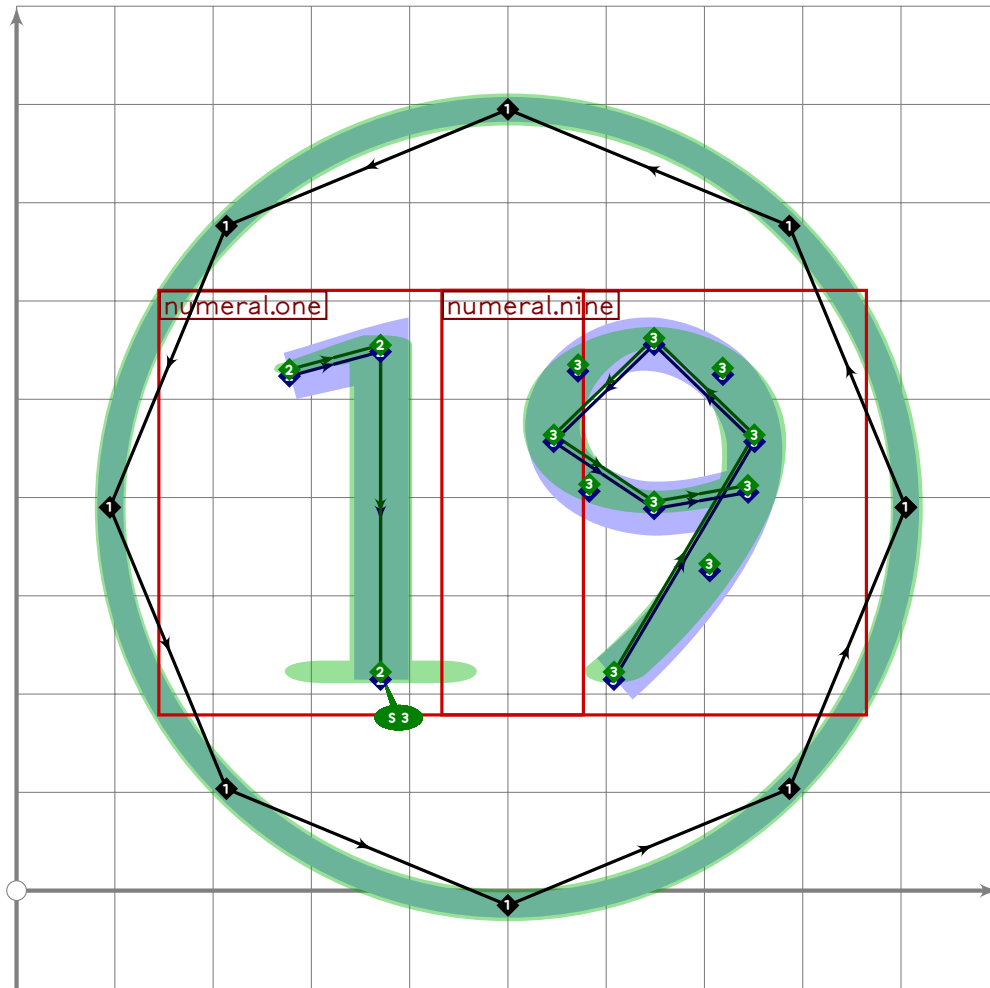
```



```

185 % 18
186 begint Suglyph("uni2471";113);
187   circle.single;
188   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
189   numeric x[],y[];
190   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)
191     (numeral.eight);
192   tsu_render;
193 endtsuglyph;
194

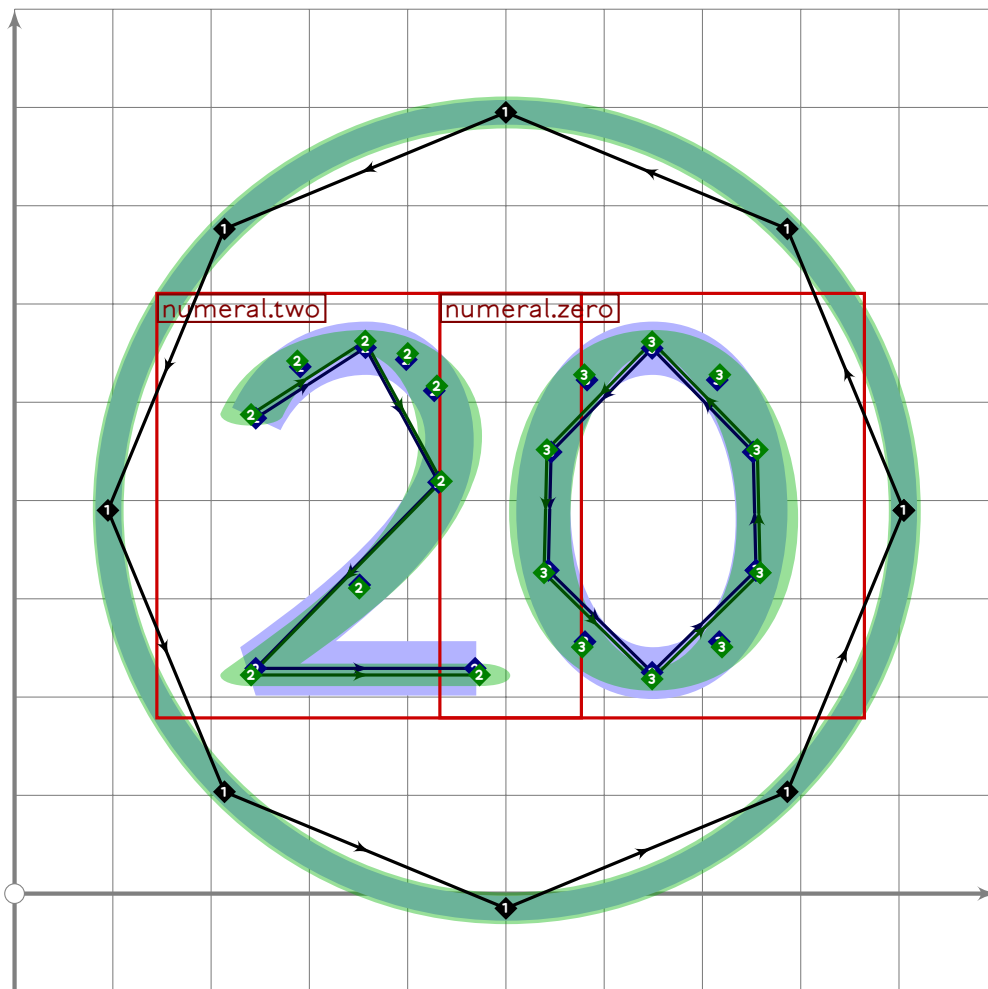
```

```

195 % 19
196 beginsuglyph("uni2472",114);
197   circle.single;
198   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
199   numeric x[],y[];
200   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.nine);
201   tsu_render;
202 endsuglyph;
203

```



```

204 % 20
205 begint Suglyph("uni2473",115);
206   circle.single;
207   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.two);
208   numeric x[],y[];
209   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
210   tsu_render;
211 endtsuglyph;
212
213
214

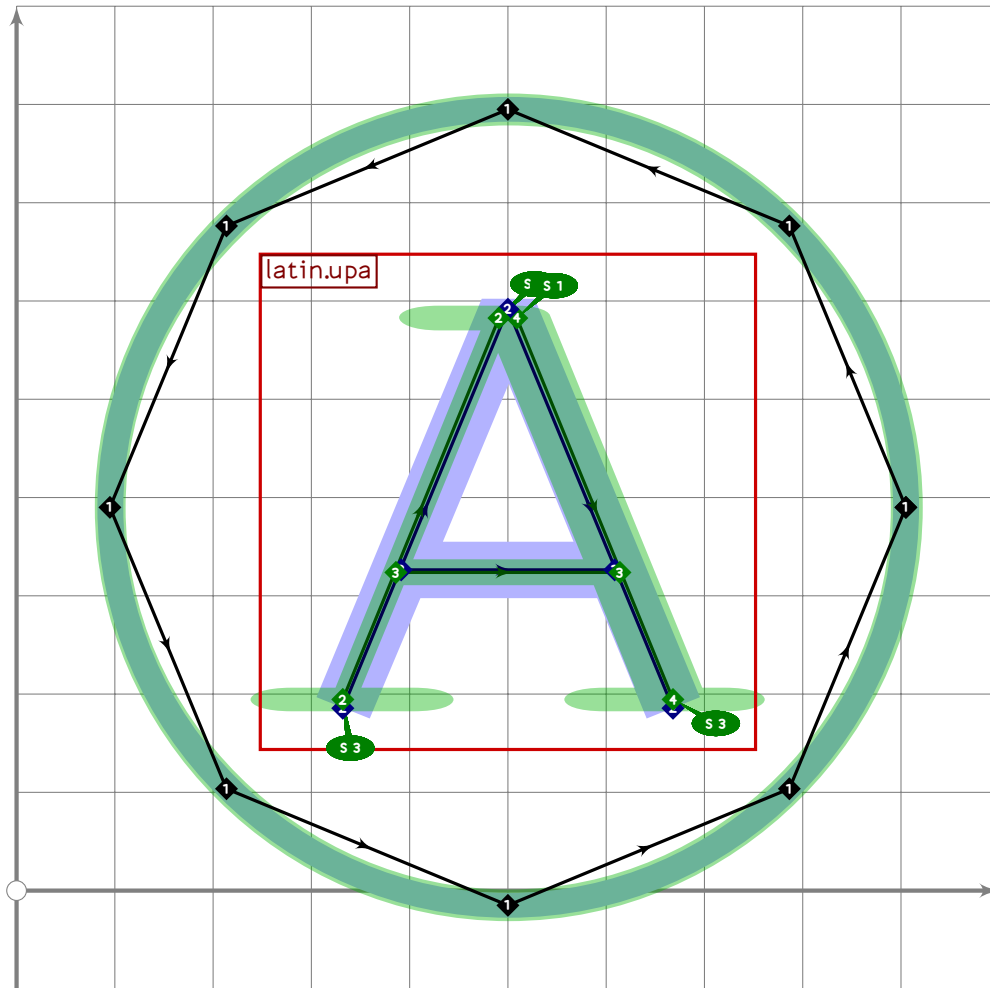
```

Circled Latin And Zero

```

215 % CIRCLED LATIN AND ZERO
216

```



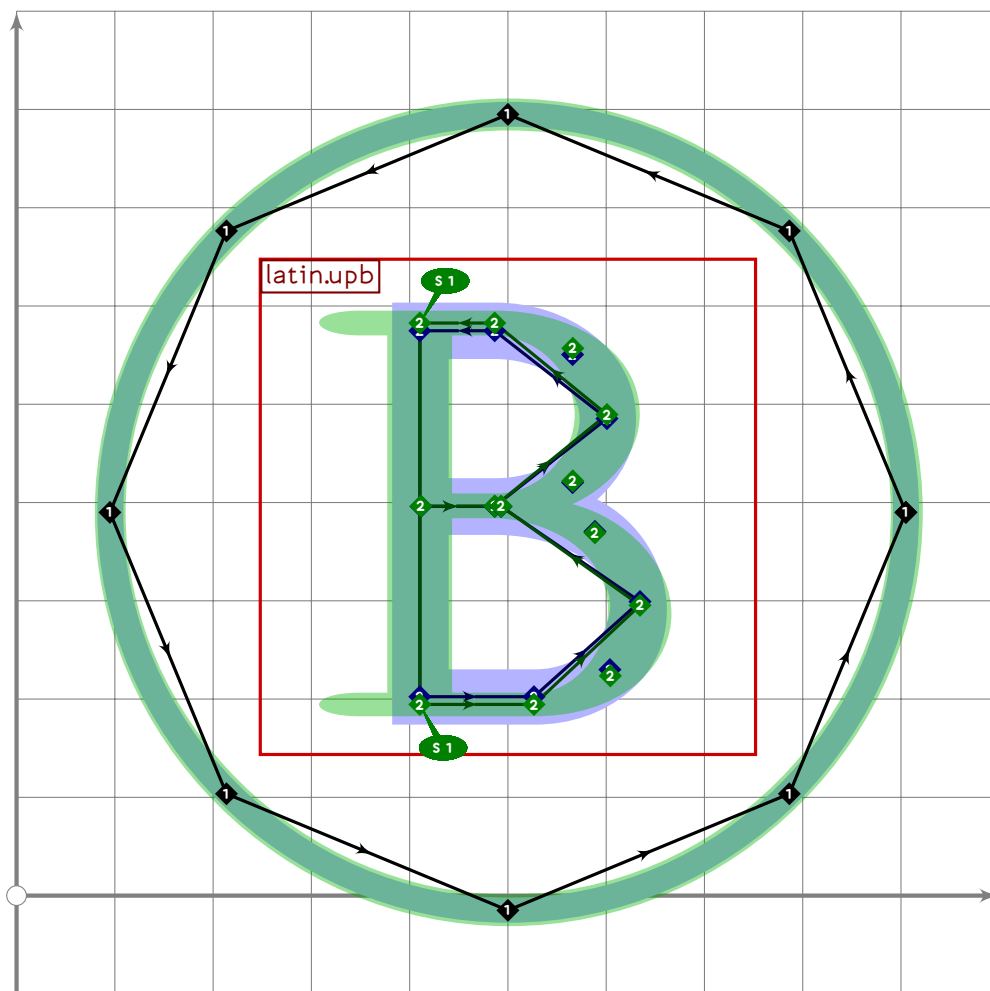
```

217 % A
218 begintsuglyph("uni24B6",182);
219   circle.single;
220   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upa);
221   tsu_render;
222 endtsuglyph;
223

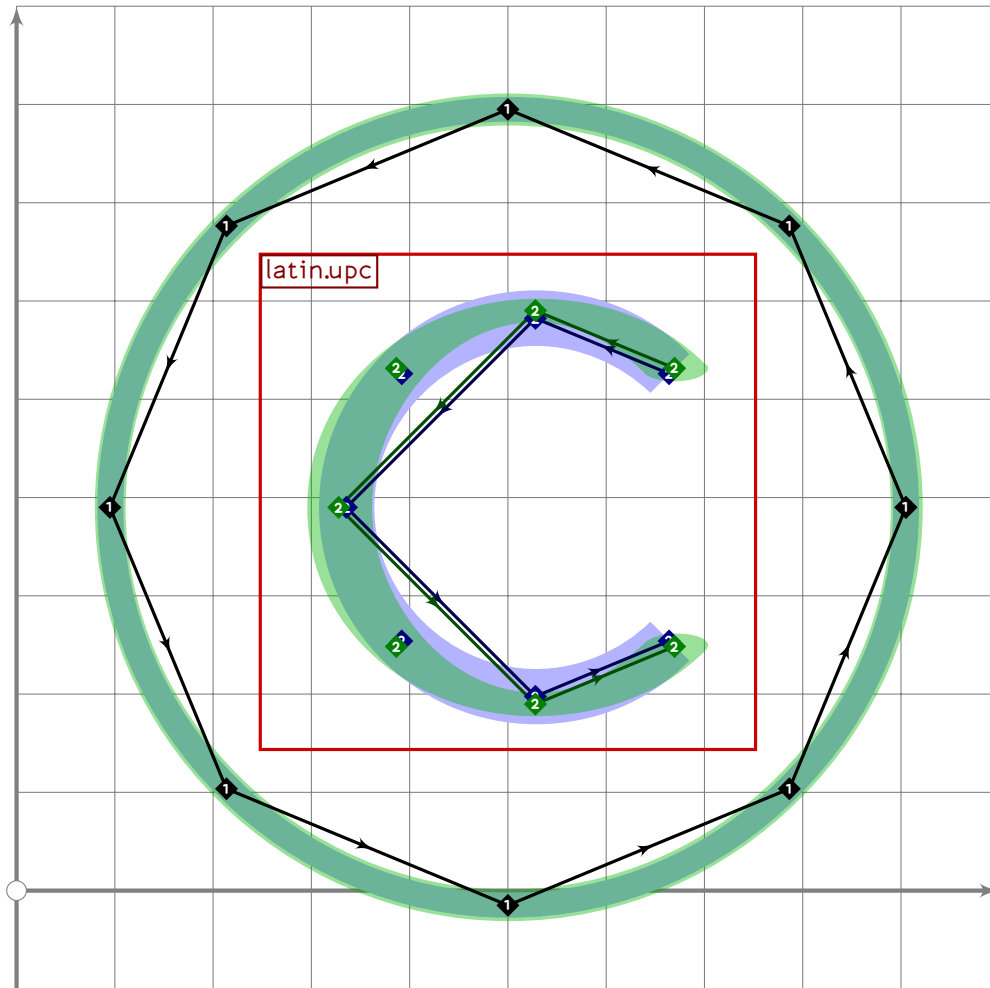
```

U+24B7
tsuku.uni24B7

24



```
224 % B
225 begintsuglyph("uni24B7",183);
226   circle.single;
227   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upb);
228   tsu_render;
229 endtsuglyph;
230
```



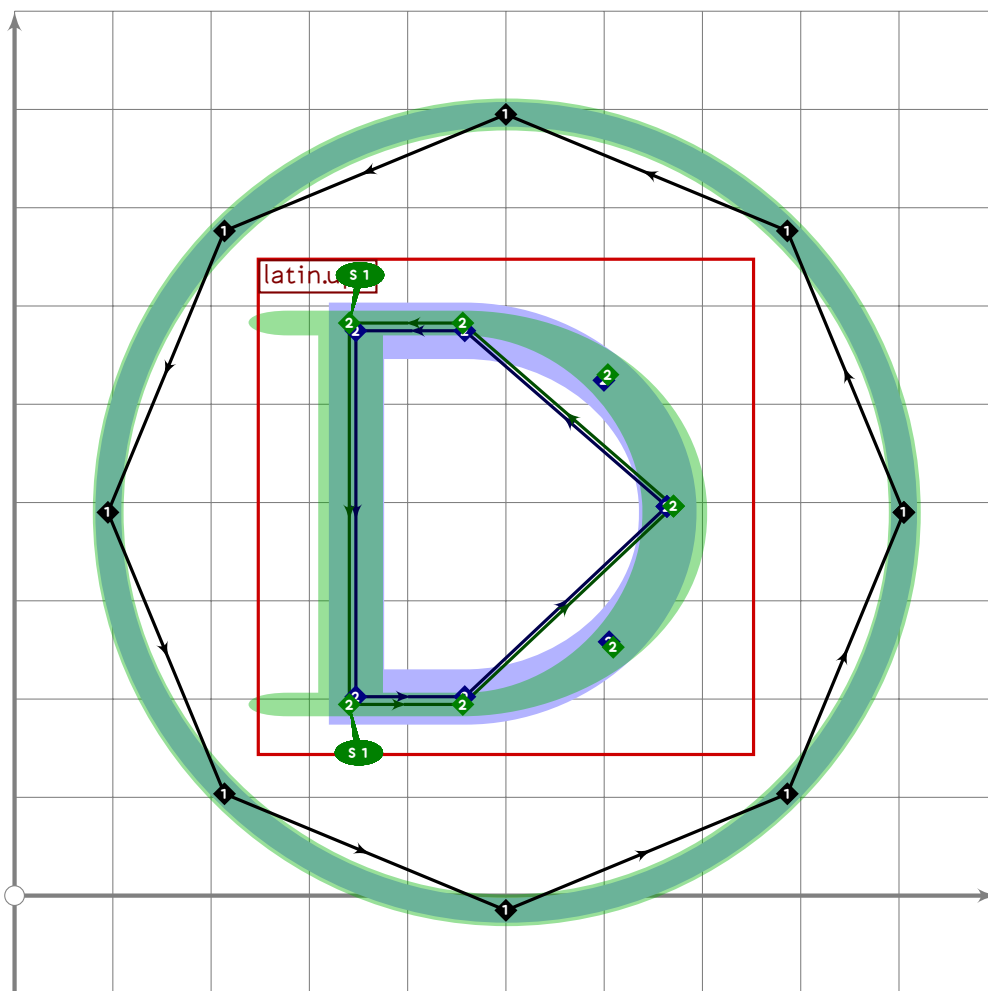
```

231 % C
232 begintsuglyph("uni24B8",184);
233   circle.single;
234   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upc);
235   tsu_render;
236 endtsuglyph;
237

```

U+24B9
tsuku.uni24B9

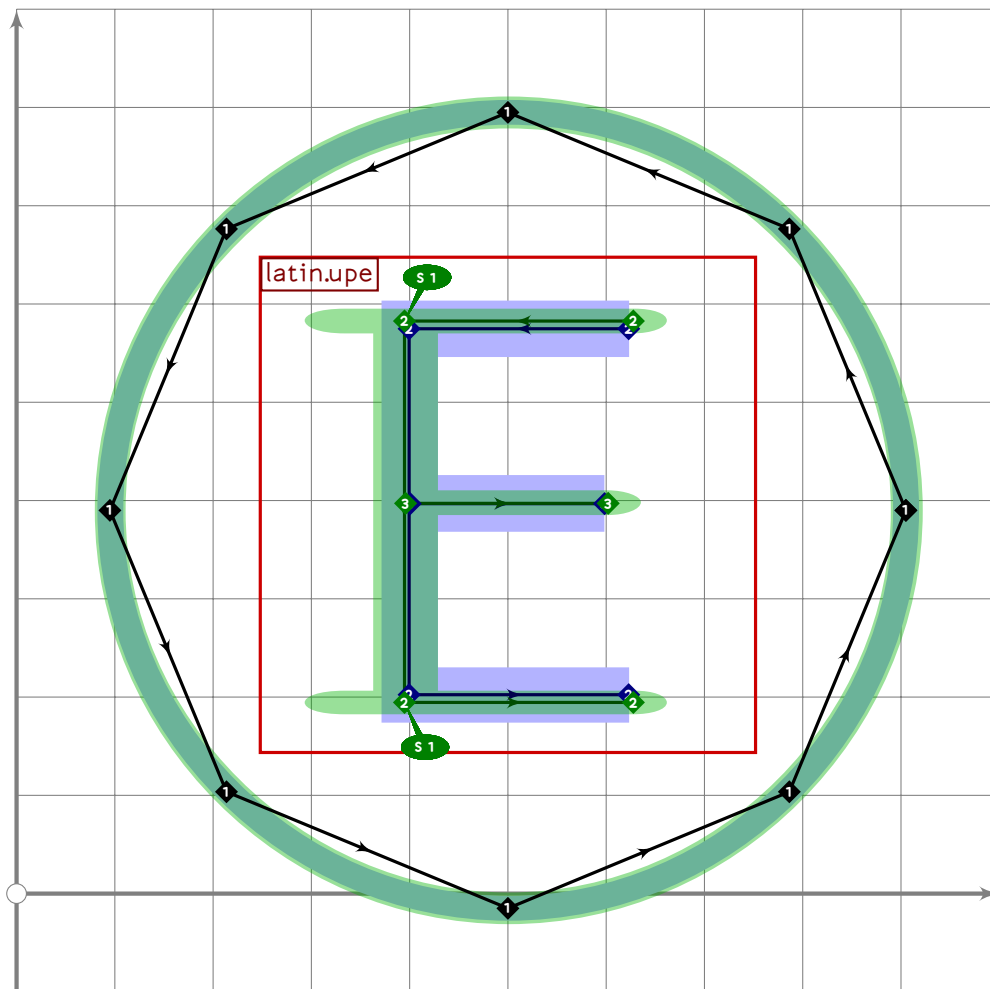
24



```

238 % D
239 begintsuglyph("uni24B9",185);
240   circle.single;
241   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upd);
242   tsu_render;
243 endtsuglyph;
244

```



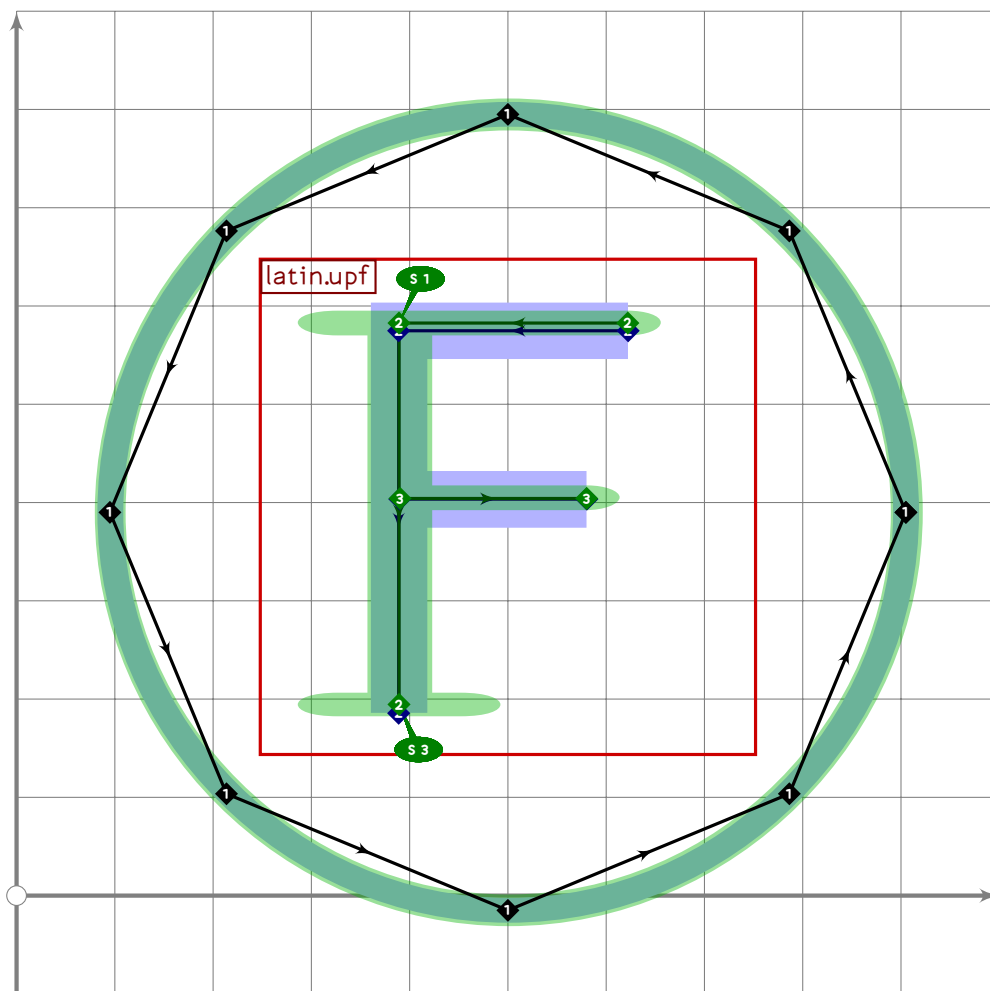
```

245 % E
246 begintsuglyph("uni24BA",186);
247   circle.single;
248   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upe);
249   tsu_render;
250 endtsuglyph;
251

```

U+24BB
tsuku.uni24BB

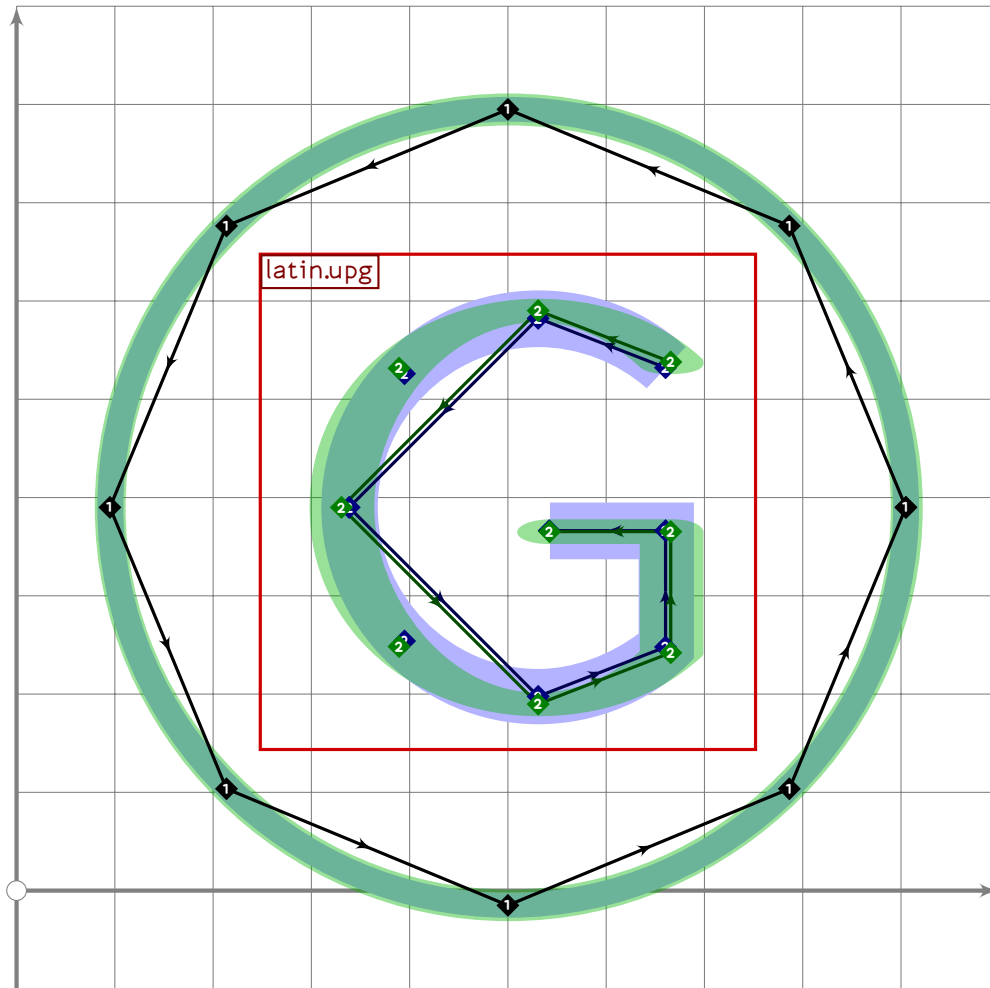
24



```

252 % F
253 begintsuglyph("uni24BB",187);
254   circle.single;
255   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upf);
256   tsu_render;
257 endtsuglyph;
258

```

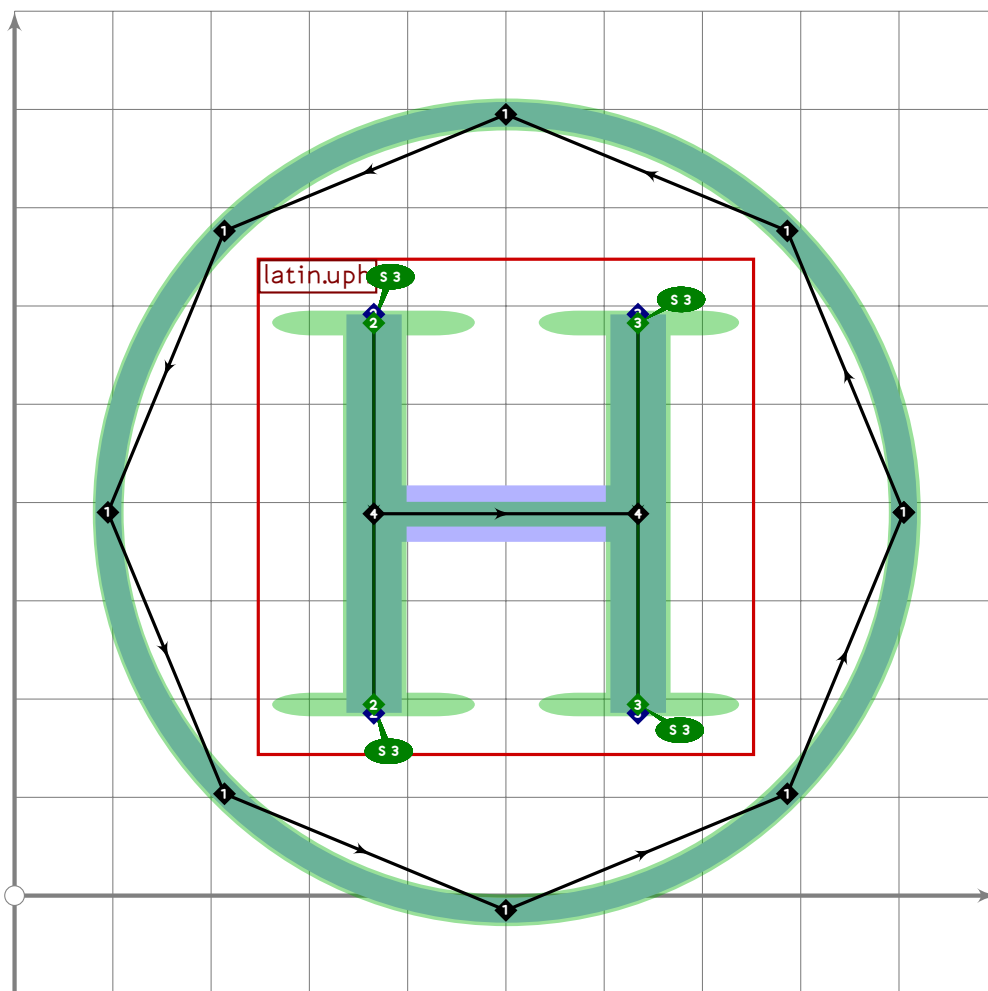
```

259 % G
260 begintsuglyph("uni24BC",188);
261   circle.single;
262   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upg);
263   tsu_render;
264 endtsuglyph;
265

```

U+24BD
tsuku.uni24BD

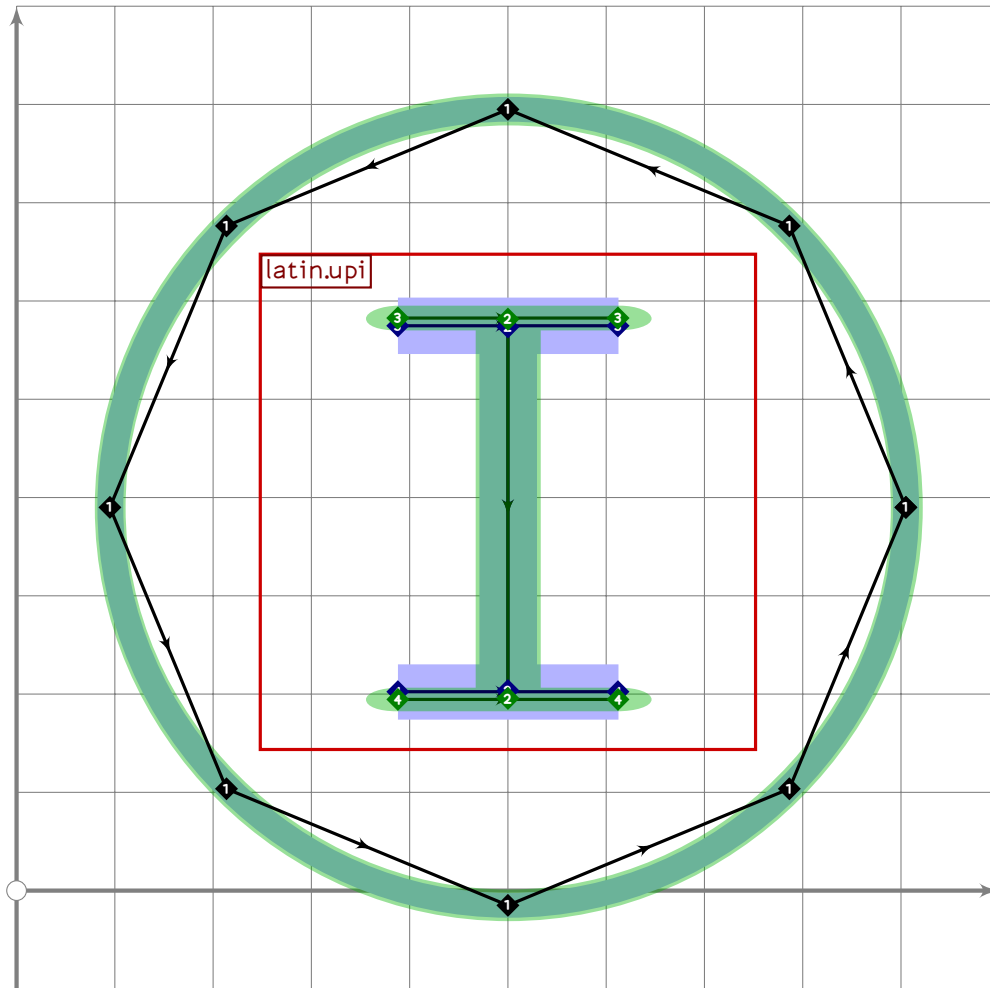
24



```

266 % H
267 begintsuglyph("uni24BD";189);
268   circle.single;
269   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.uph);
270   tsu_render;
271 endtsuglyph;
272

```



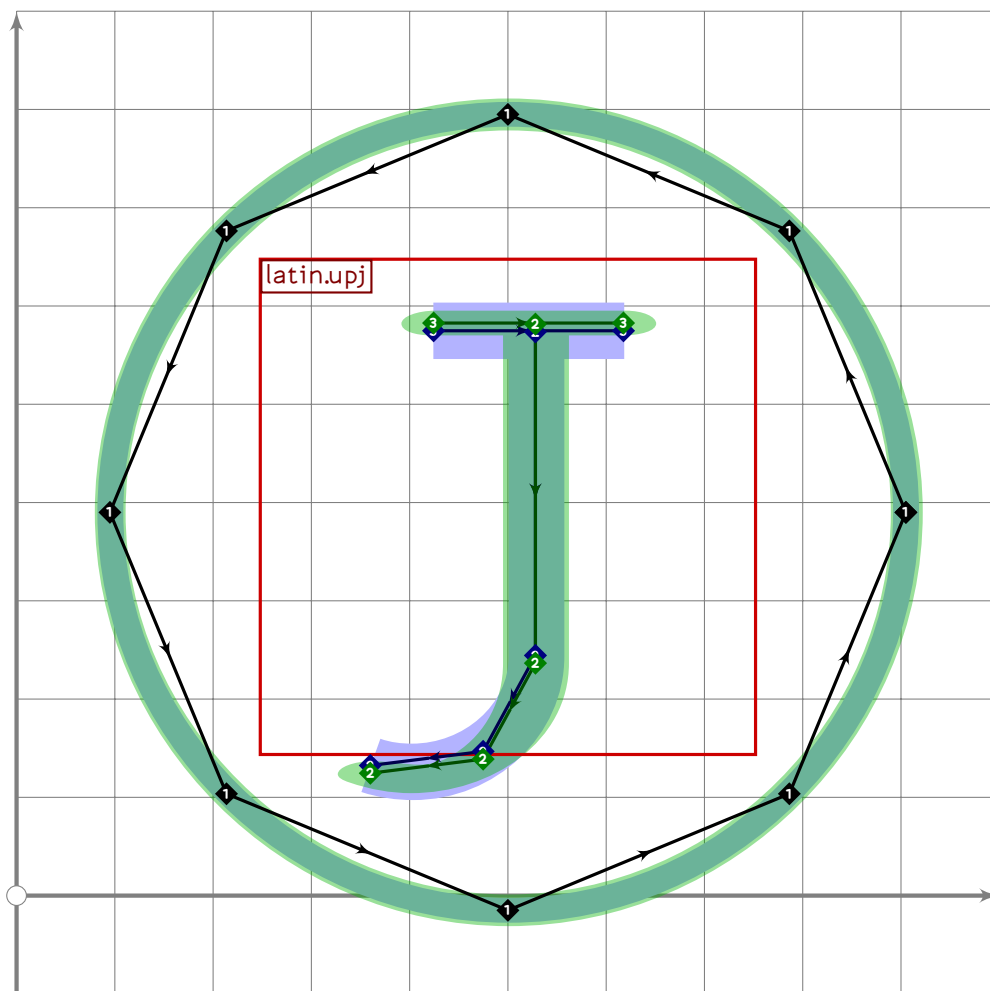
```

273 % I
274 begintsuglyph("uni24BE";190);
275   circle.single;
276   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upi);
277   tsu_render;
278 endtsuglyph;
279

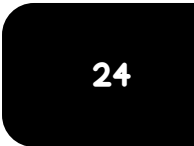
```

U+24BF
tsuku.uni24BF

24



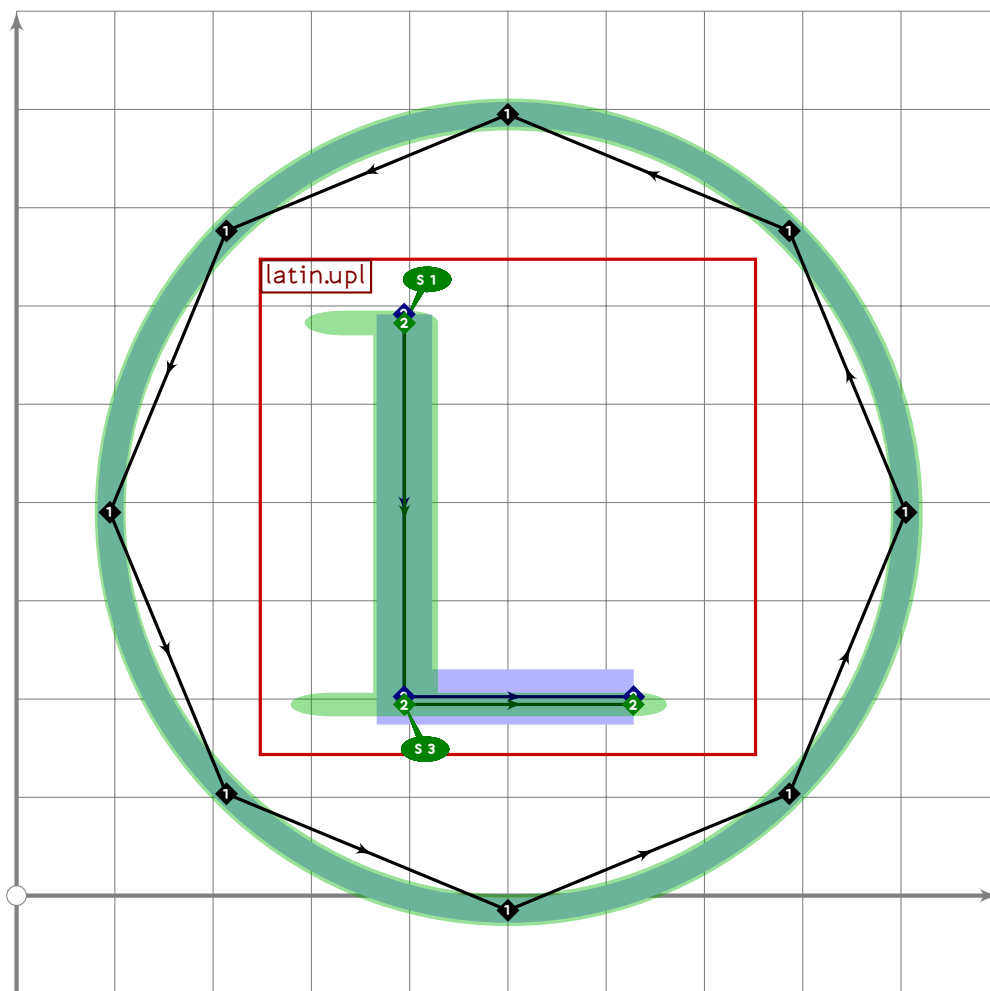
```
280 % J
281 begintsuglyph("uni24BF";191);
282   circle.single;
283   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upj);
284   tsu_render;
285 endtsuglyph;
286
```



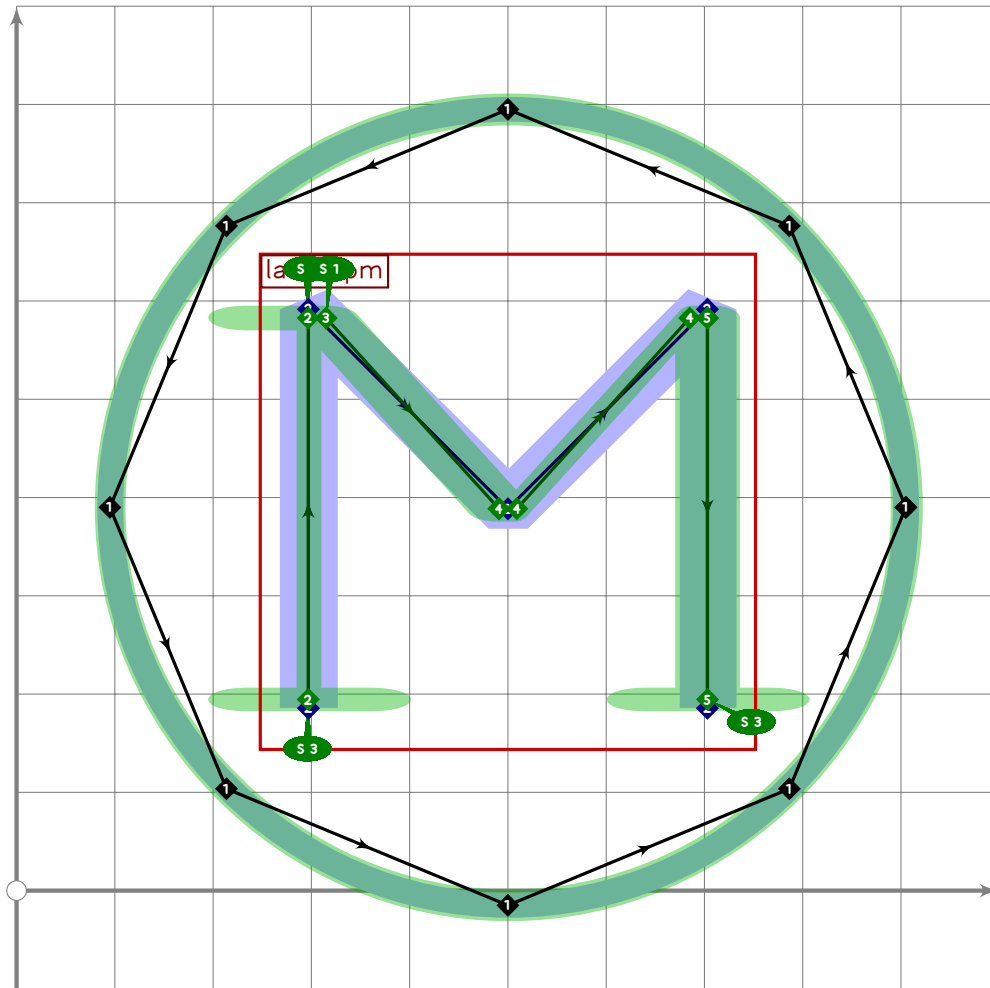
24

U+24C1
tsuku.uni24C1

24



```
294 % L
295 begintsuglyph("uni24C1",193);
296   circle.single;
297   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upl);
298   tsu_render;
299 endtsuglyph;
300
```



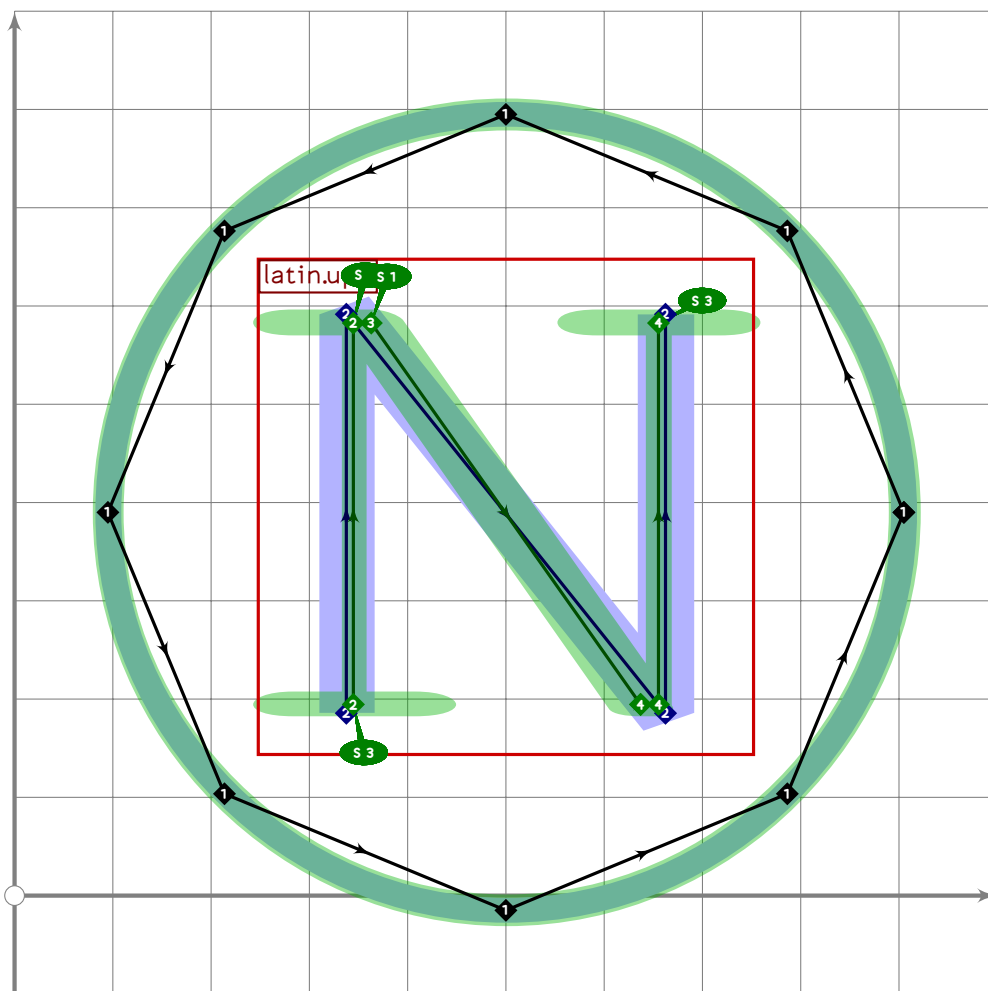
```

301 % M
302 begintuglyph("uni24C2";194);
303   circle.single;
304   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upm);
305   tsu_render;
306 endtuglyph;
307

```

U+24C3
tsuku.uni24C3

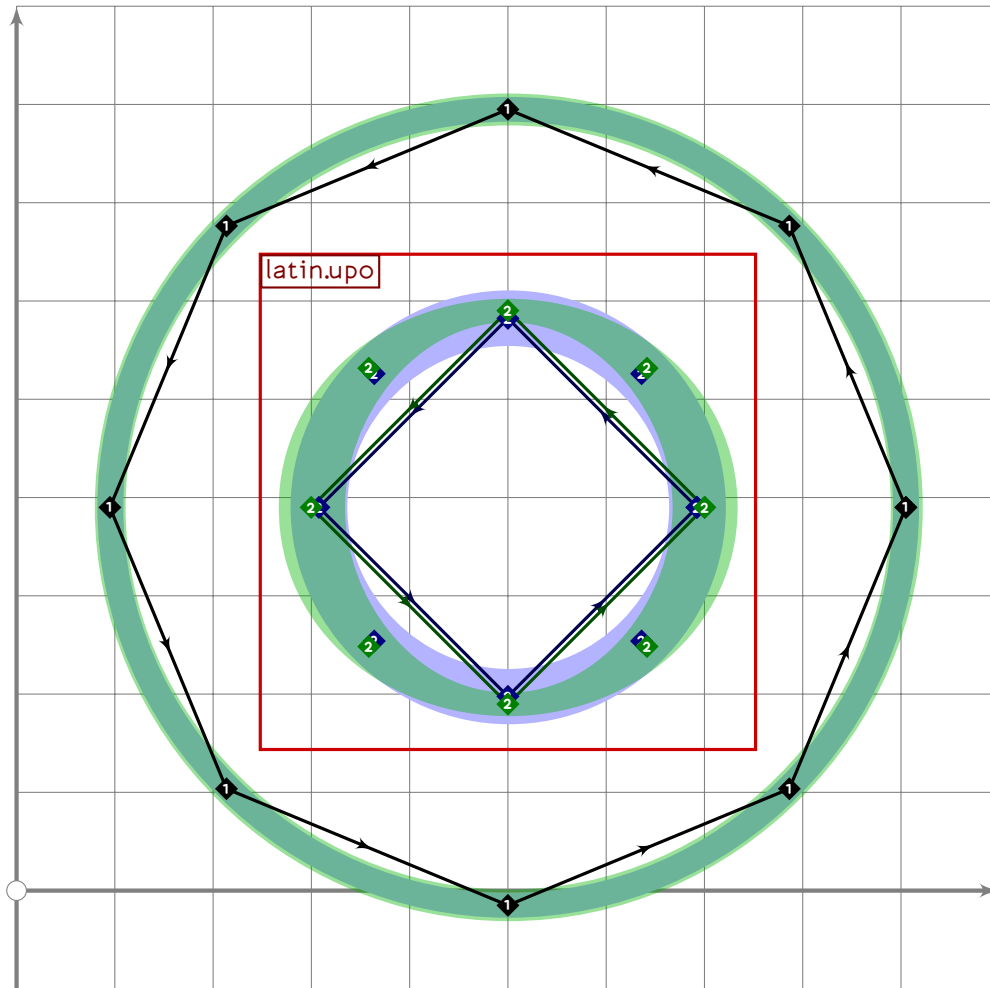
24



```

308 % N
309 begintuglyph("uni24C3";195);
310   circle.single;
311   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upn);
312   tsu_render;
313 endtuglyph;
314

```

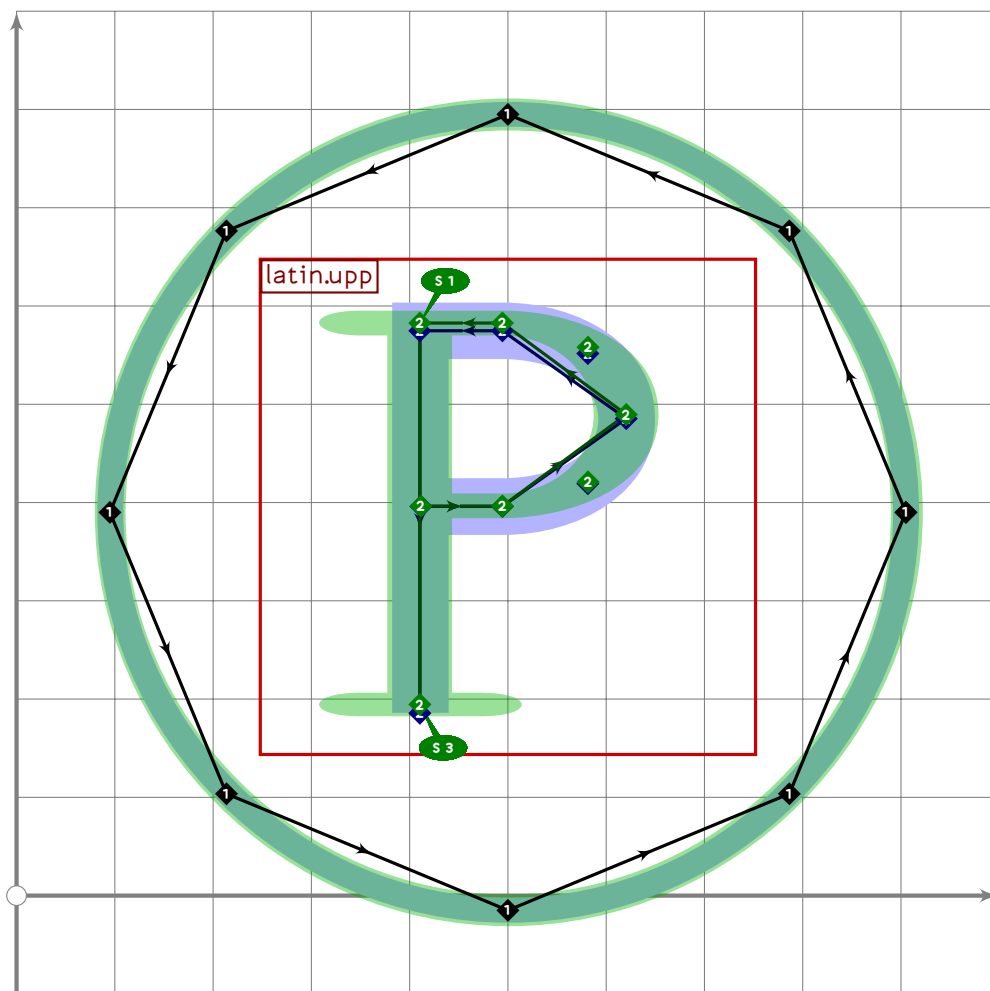
```

315 % O
316 begintsuglyph("uni24C4",196);
317   circle.single;
318   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upo);
319   tsu_render;
320 endtsuglyph;
321

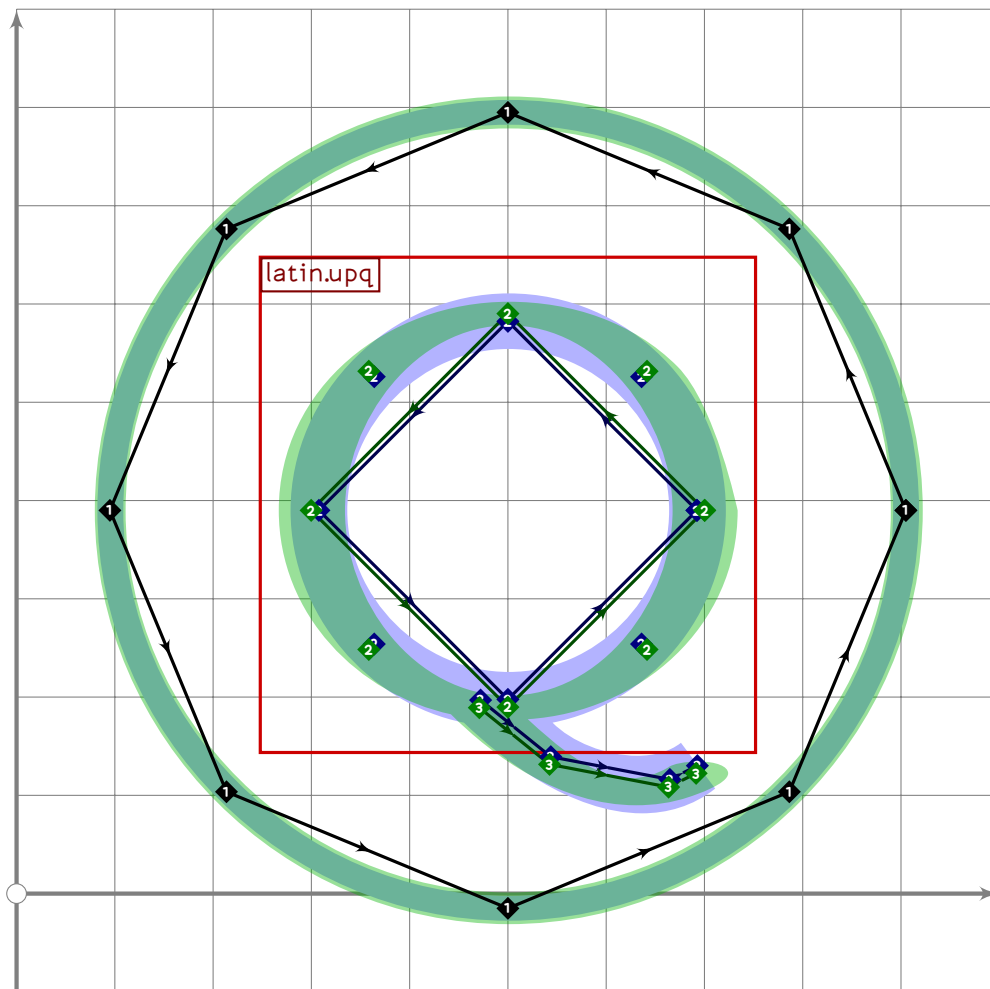
```

U+24C5
tsuku.uni24C5

24



```
322 % P
323 begintsuglyph("uni24C5";197);
324   circle.single;
325   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upp);
326   tsu_render;
327 endtsuglyph;
328
```



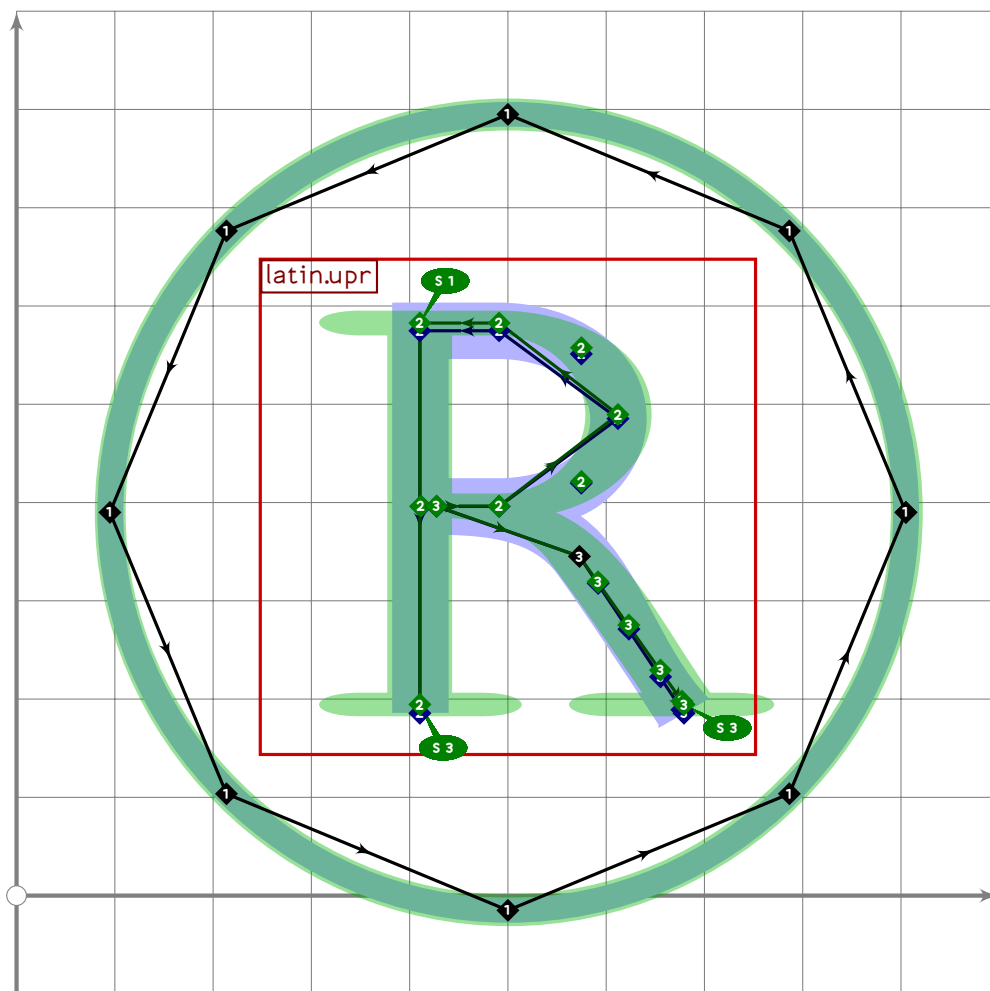
```

329 % Q
330 begint Suglyph("uni24C6",198);
331   circle.single;
332   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upq);
333   tsu_render;
334 endtsuglyph;
335

```

U+24C7
tsuku.uni24C7

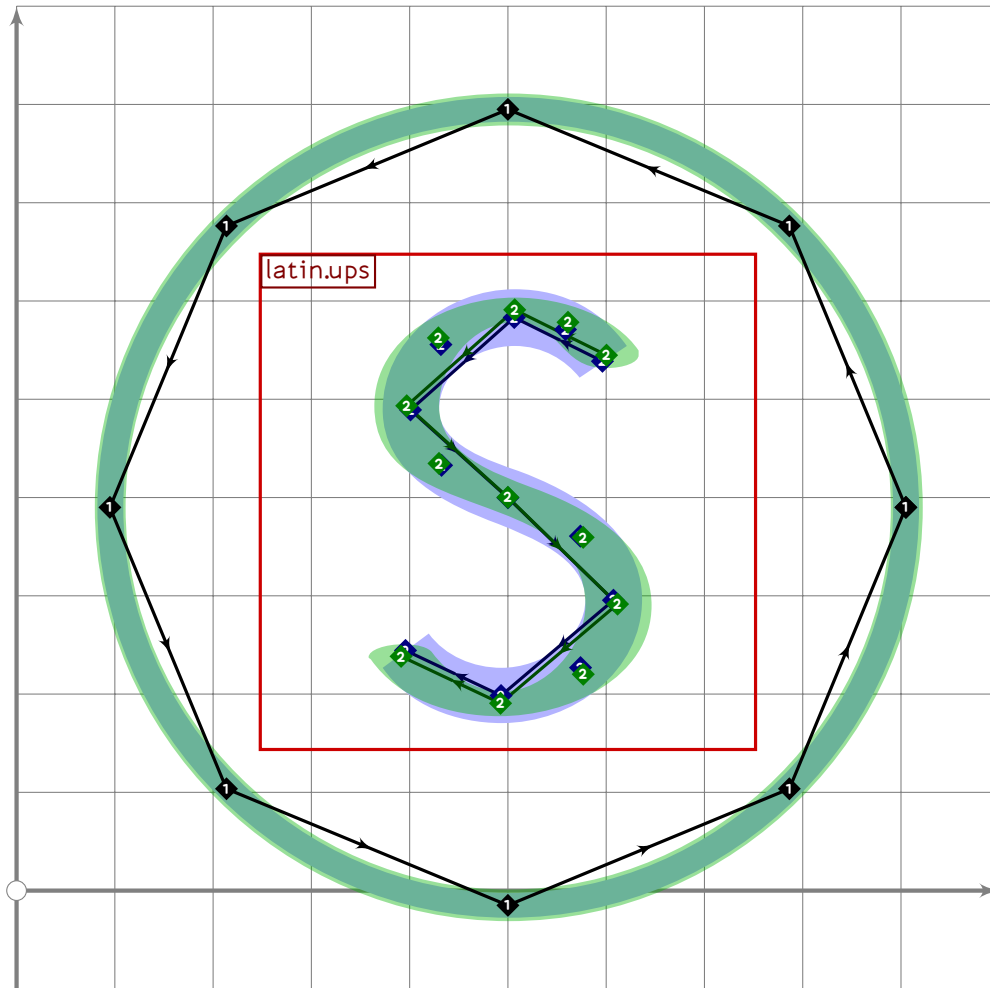
24



```

336 % R
337 begintsuglyph("uni24C7";199);
338   circle.single;
339   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upr);
340   tsu_render;
341 endtsuglyph;
342

```



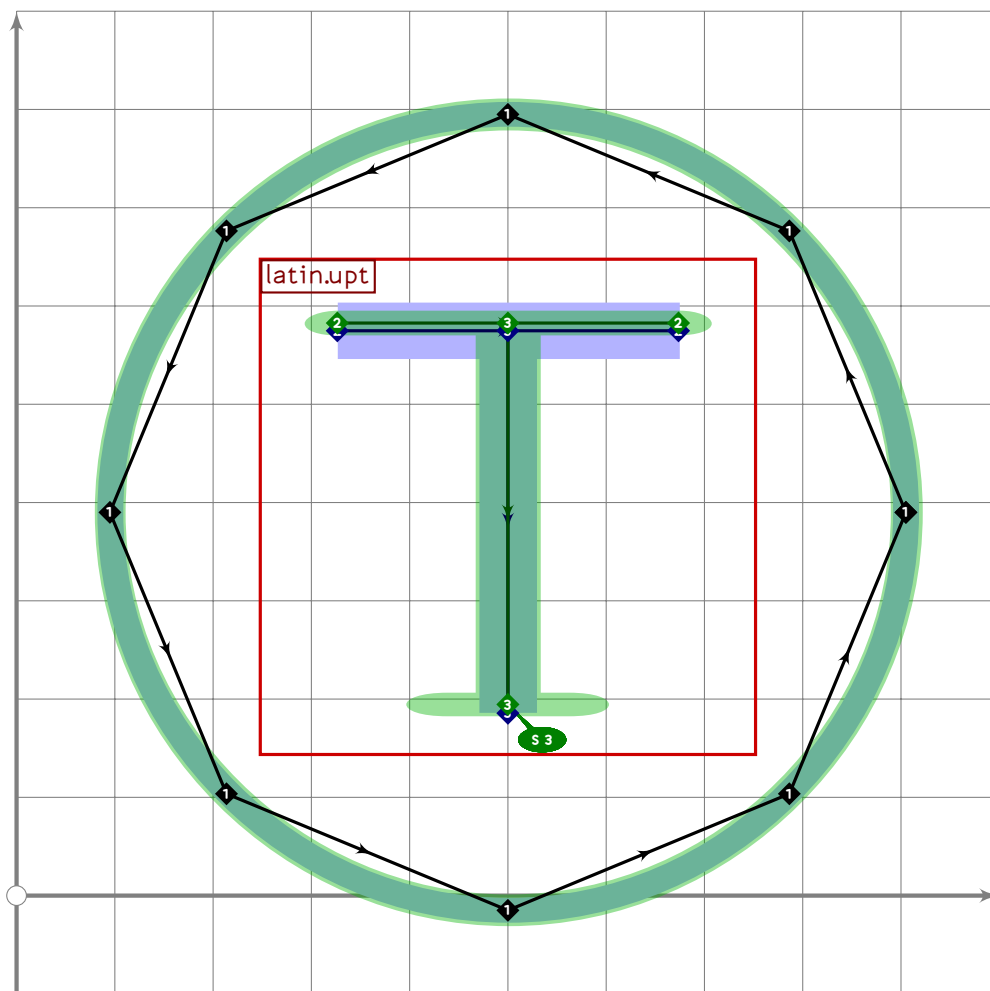
```

343 % S
344 begintsuglyph("uni24C8";200);
345   circle.single;
346   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.ups);
347   tsu_render;
348 endtsuglyph;
349

```

U+24C9
tsuku.uni24C9

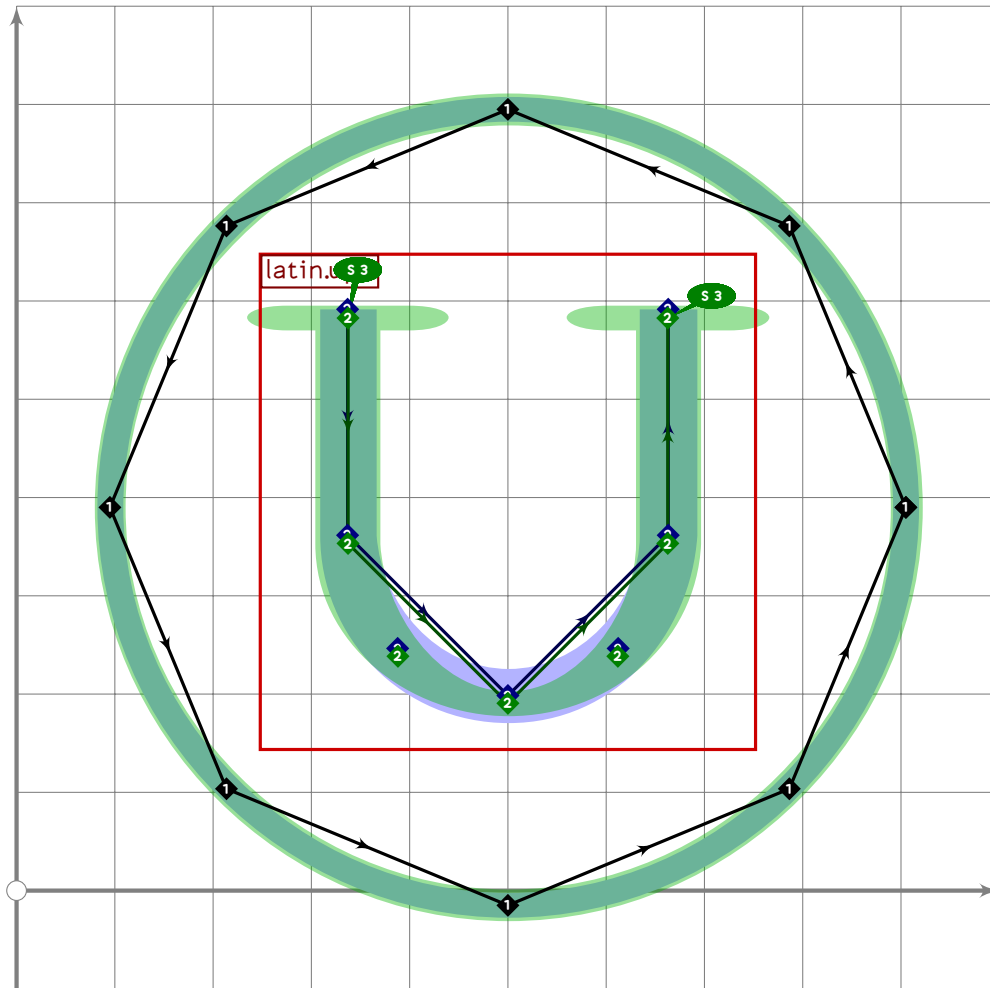
24



```

350 % T
351 begintsuglyph("uni24C9";201);
352   circle.single;
353   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upt);
354   tsu_render;
355 endtsuglyph;
356

```



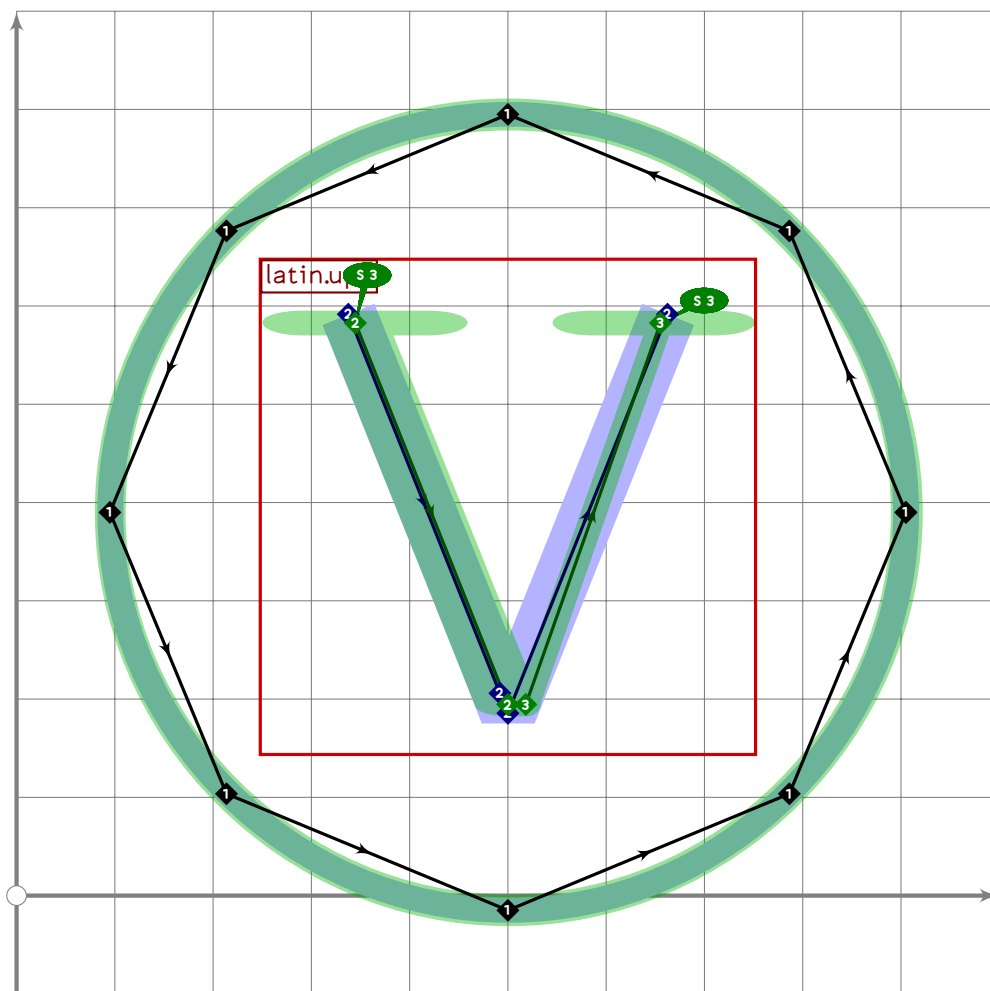
```

357 % U
358 begintsuglyph("uni24CA";202);
359   circle.single;
360   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upu);
361   tsu_render;
362 endtsuglyph;
363

```

U+24CB
tsuku.uni24CB

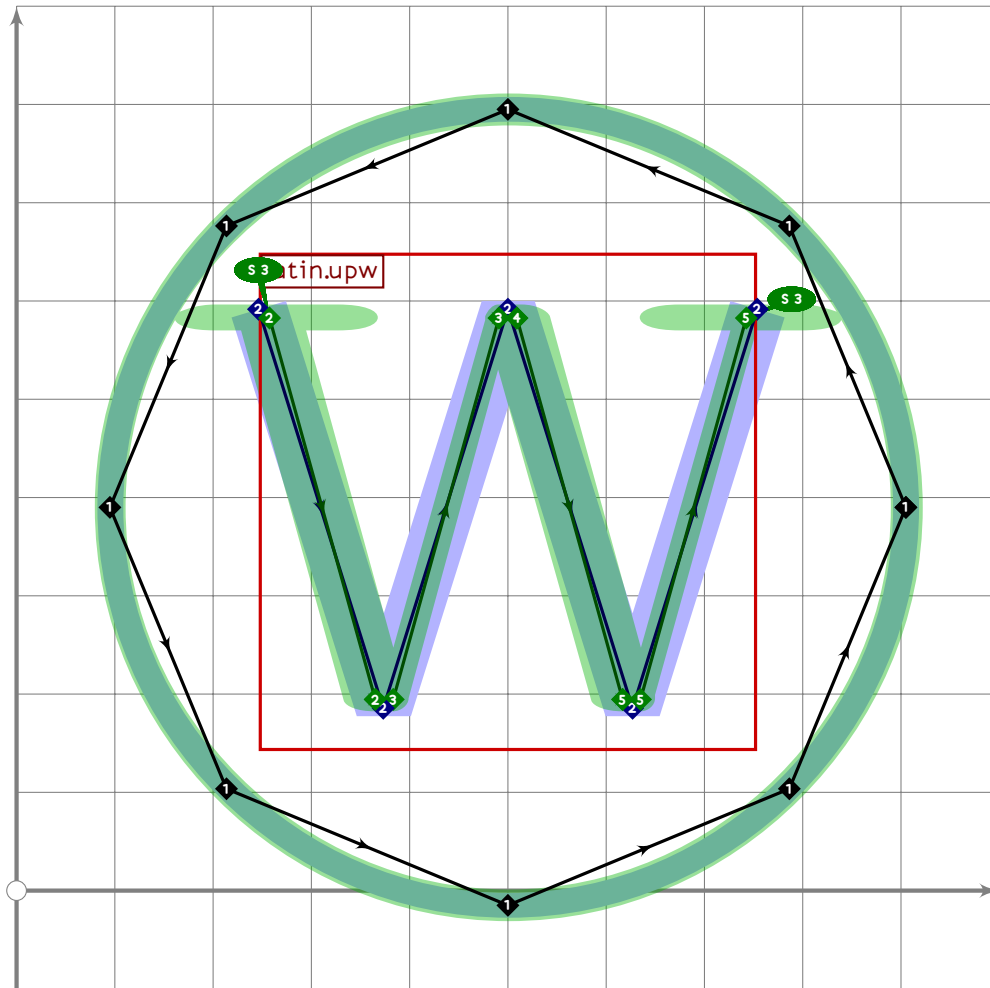
24



```

364 % V
365 begintsuglyph("uni24CB";203);
366   circle.single;
367   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upv);
368   tsu_render;
369 endtsuglyph;
370

```

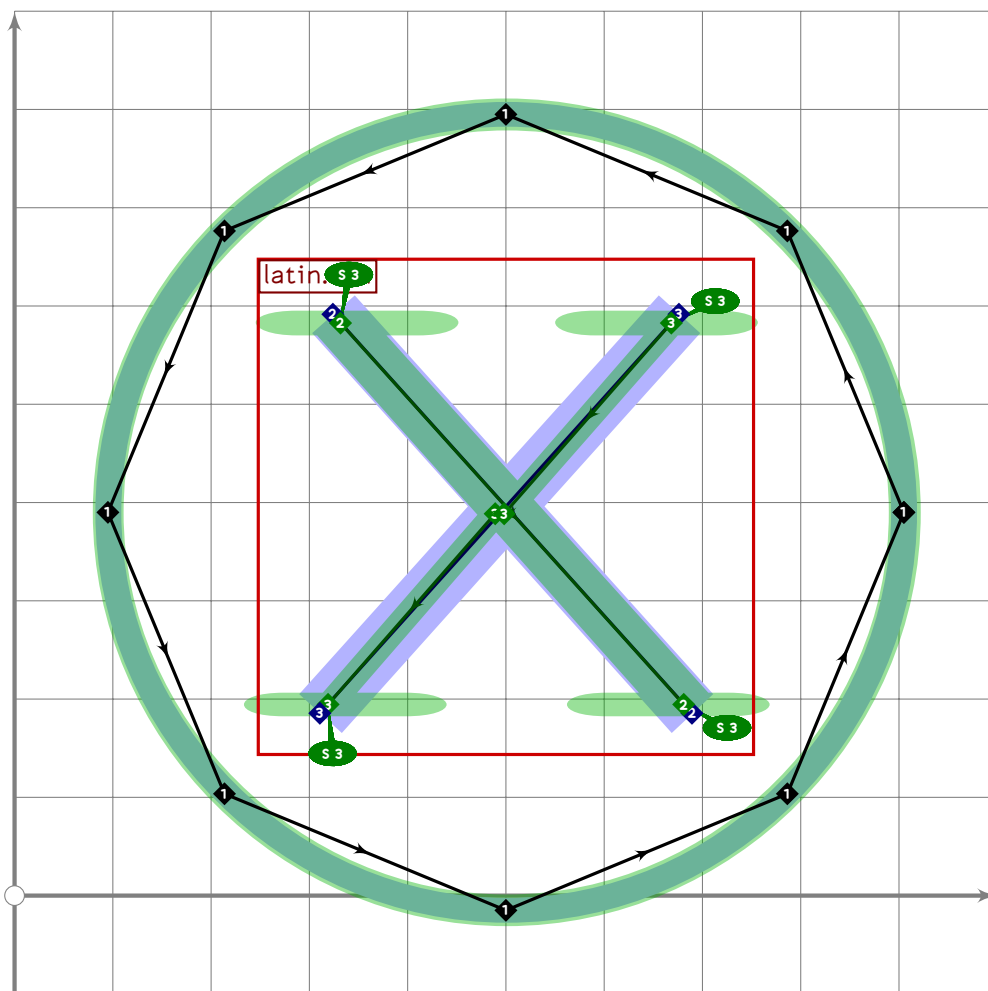
```

371 % W
372 begintsuglyph("uni24CC";204);
373   circle.single;
374   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upw);
375   tsu_render;
376 endtsuglyph;
377

```

U+24CD
tsuku.uni24CD

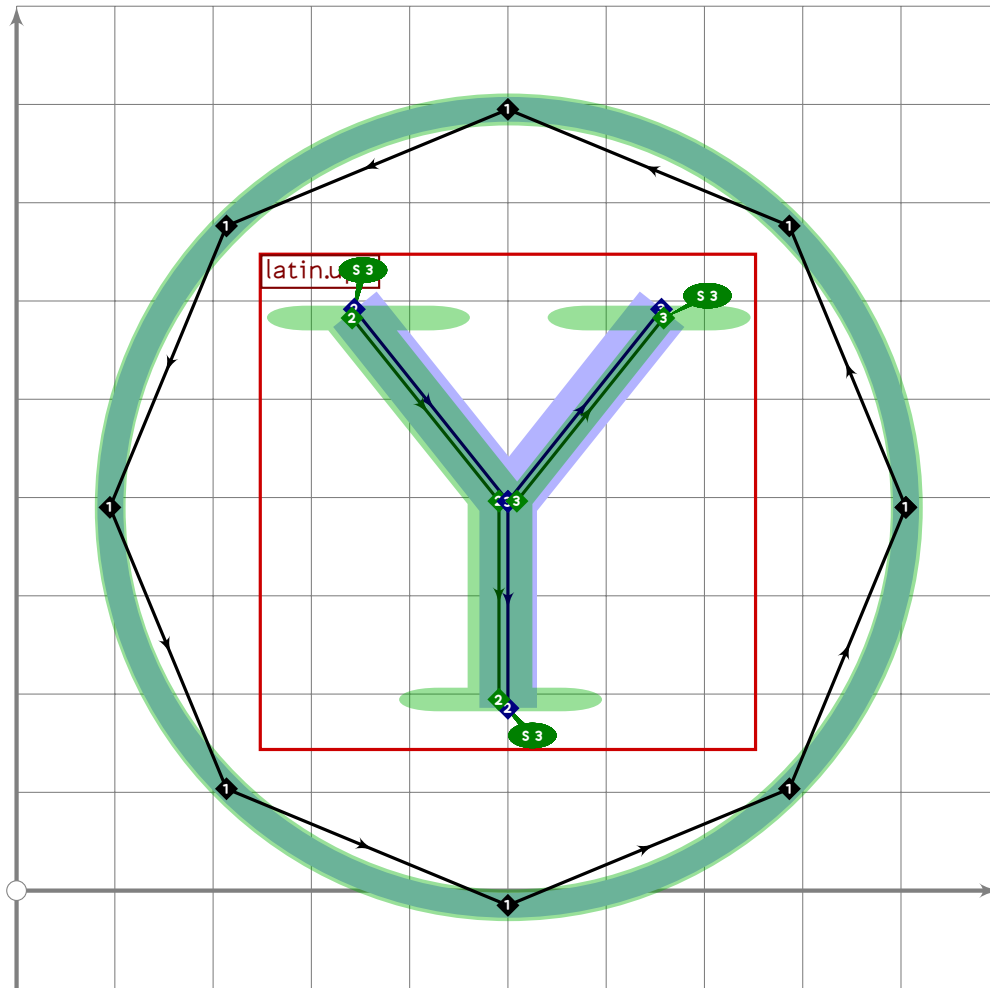
24



```

378 % X
379 begintsuglyph("uni24CD";205);
380 circle.single;
381 tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upx);
382 tsu_render;
383 endtsuglyph;
384

```



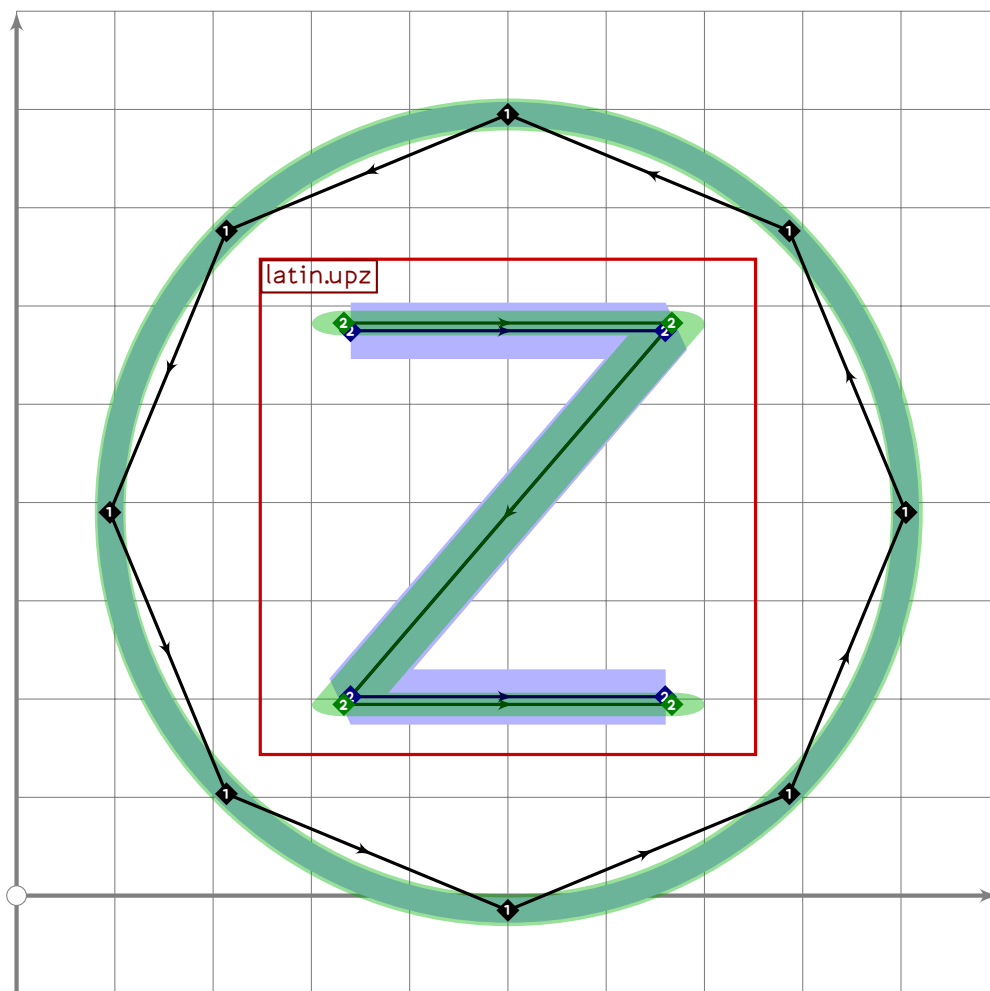
```

385 % Y
386 begintsuglyph("uni24CE";206);
387   circle.single;
388   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upy);
389   tsu_render;
390 endtsuglyph;
391

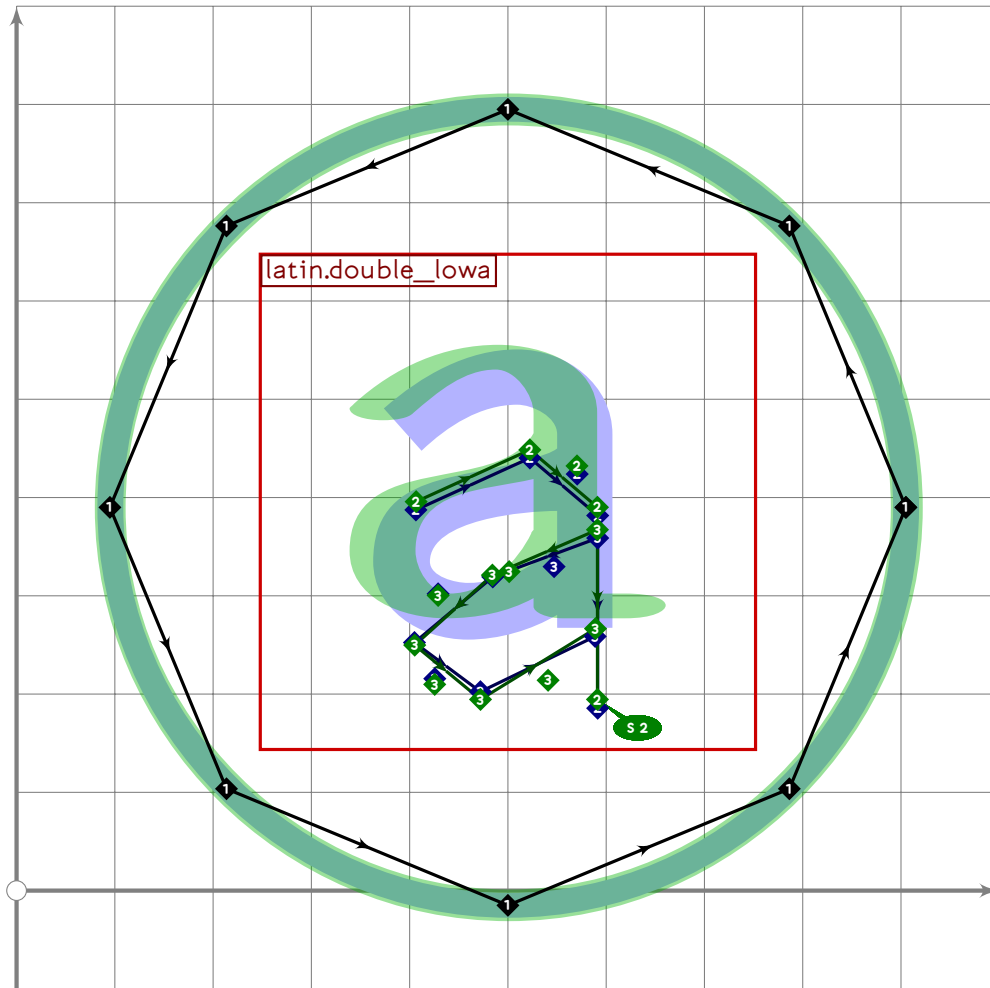
```

U+24CF
tsuku.uni24CF

24



```
392 % Z
393 begintsuglyph("uni24CF";207);
394   circle.single;
395   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upz);
396   tsu_render;
397 endtsuglyph;
398
```



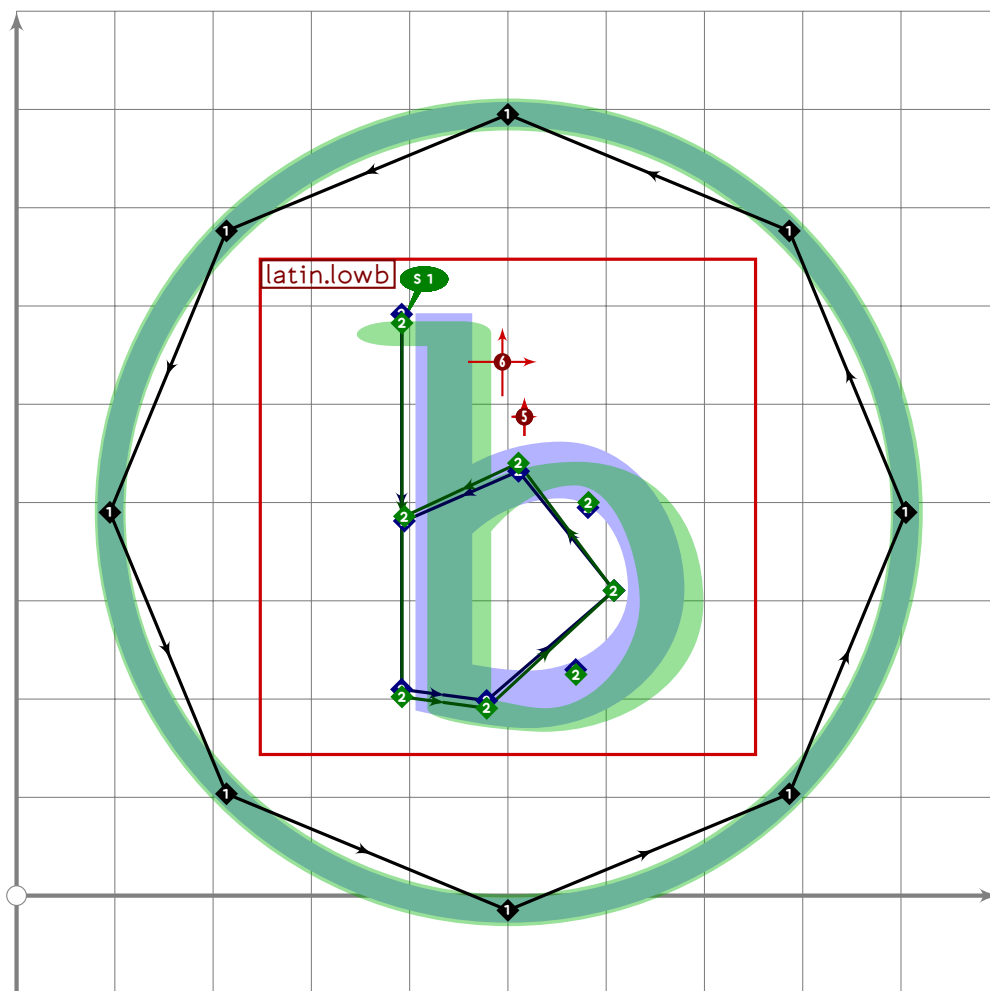
```

399 % a
400 begintsuglyph("uni24D0";208);
401   circle.single;
402   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowa);
403   tsu_render_in_circle(tsu_xf.cbound);
404 endtsuglyph;
405

```

U+24D1
tsuku.uni24D1

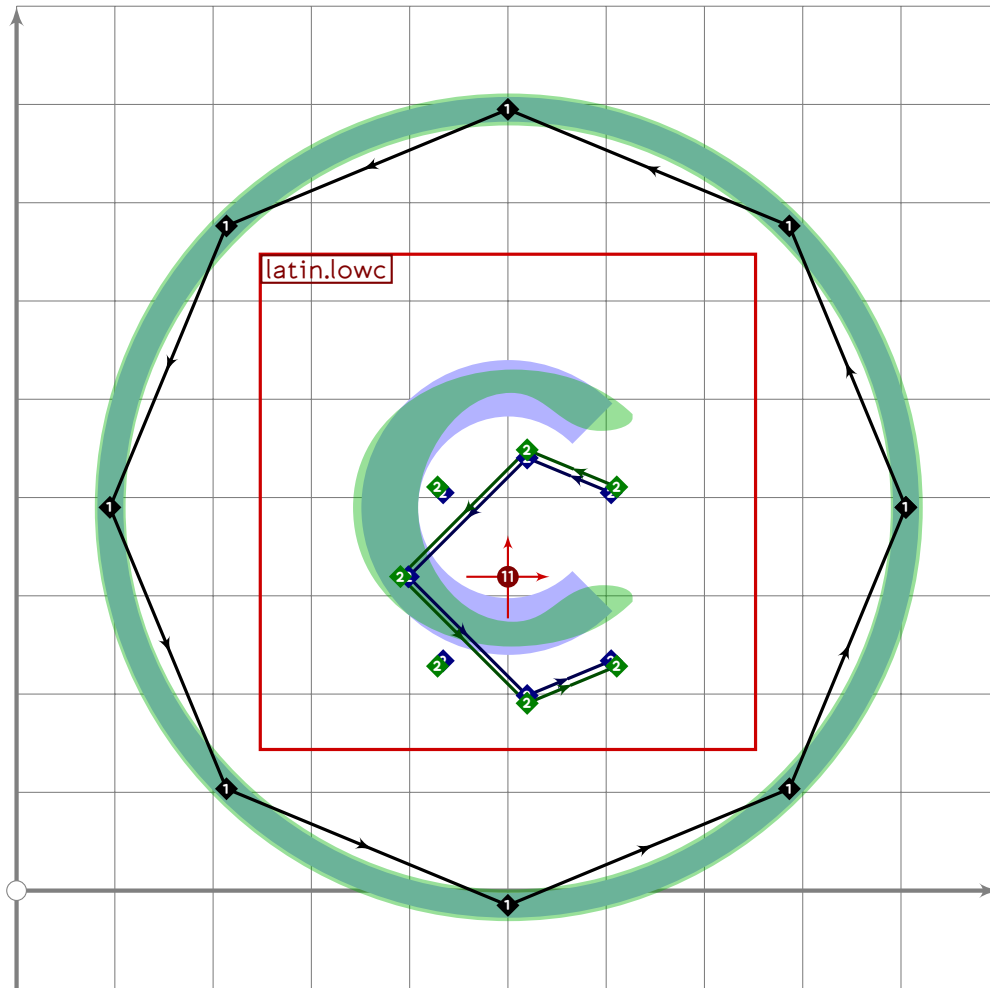
24



```

406 % b
407 begintsuglyph("uni24D1",209);
408   circle.single;
409   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowb);
410   tsu_render_in_circle(tsu_xf.cbound);
411 endtsuglyph;
412

```



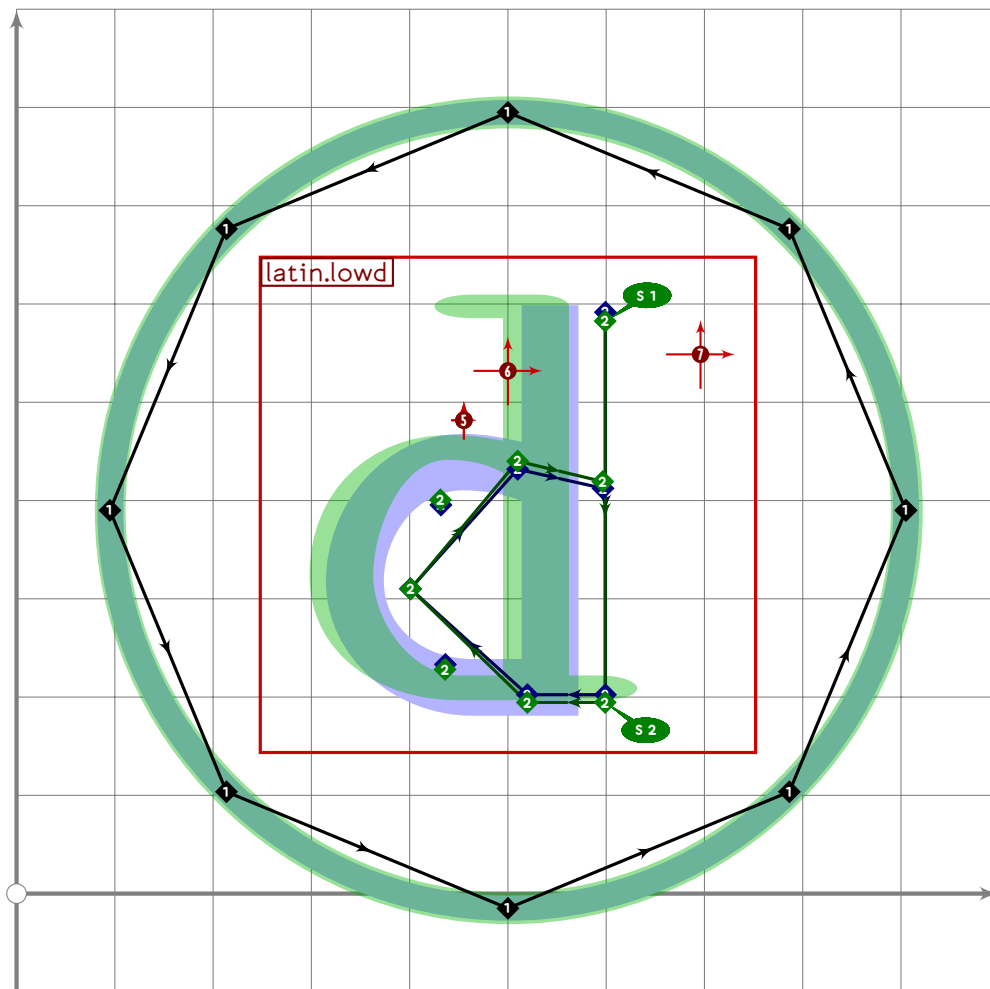
```

413 % c
414 begintsuglyph("uni24D2";210);
415   circle.single;
416   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowc);
417   tsu_render_in_circle(tsu_xf.cbound);
418 endtsuglyph;
419

```

U+24D3
tsuku.uni24D3

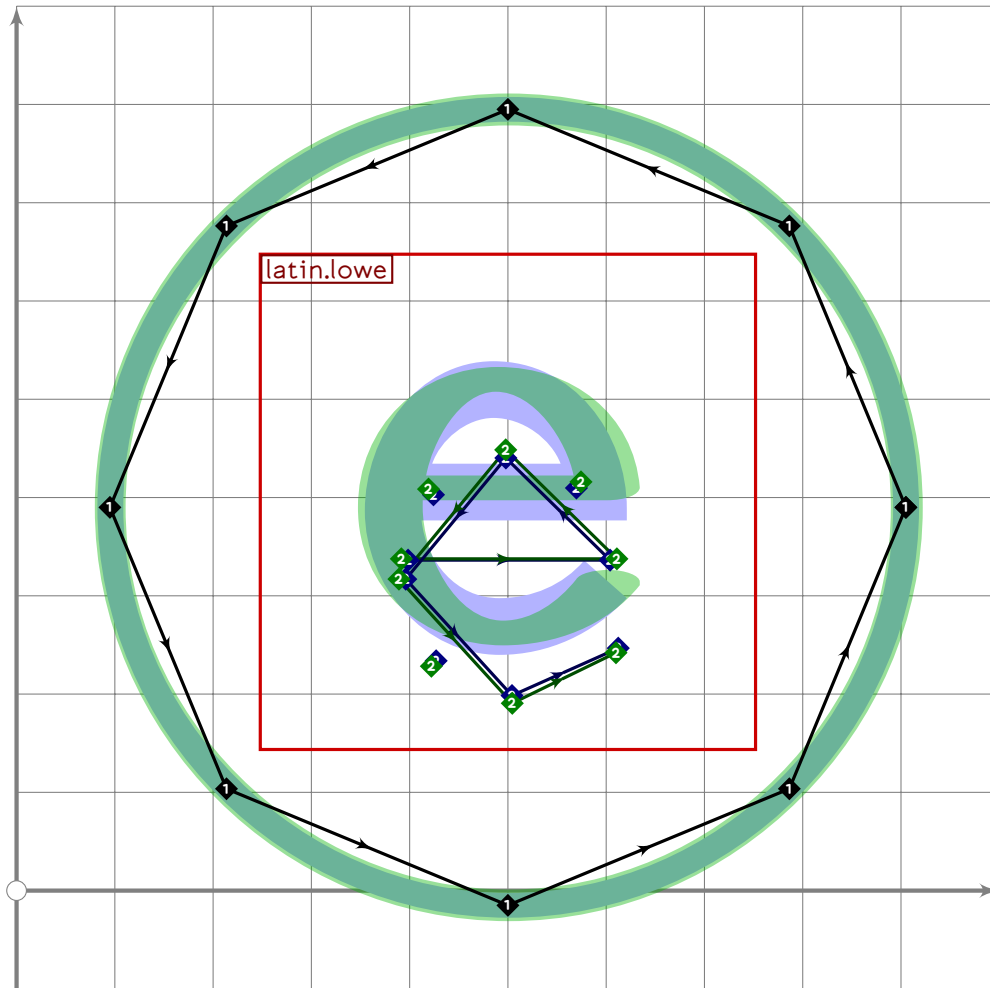
24



```

420 % d
421 begintsuglyph("uni24D3",211);
422   circle.single;
423   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowd);
424   tsu_render_in_circle(tsu_xf.cbound);
425 endtsuglyph;
426

```

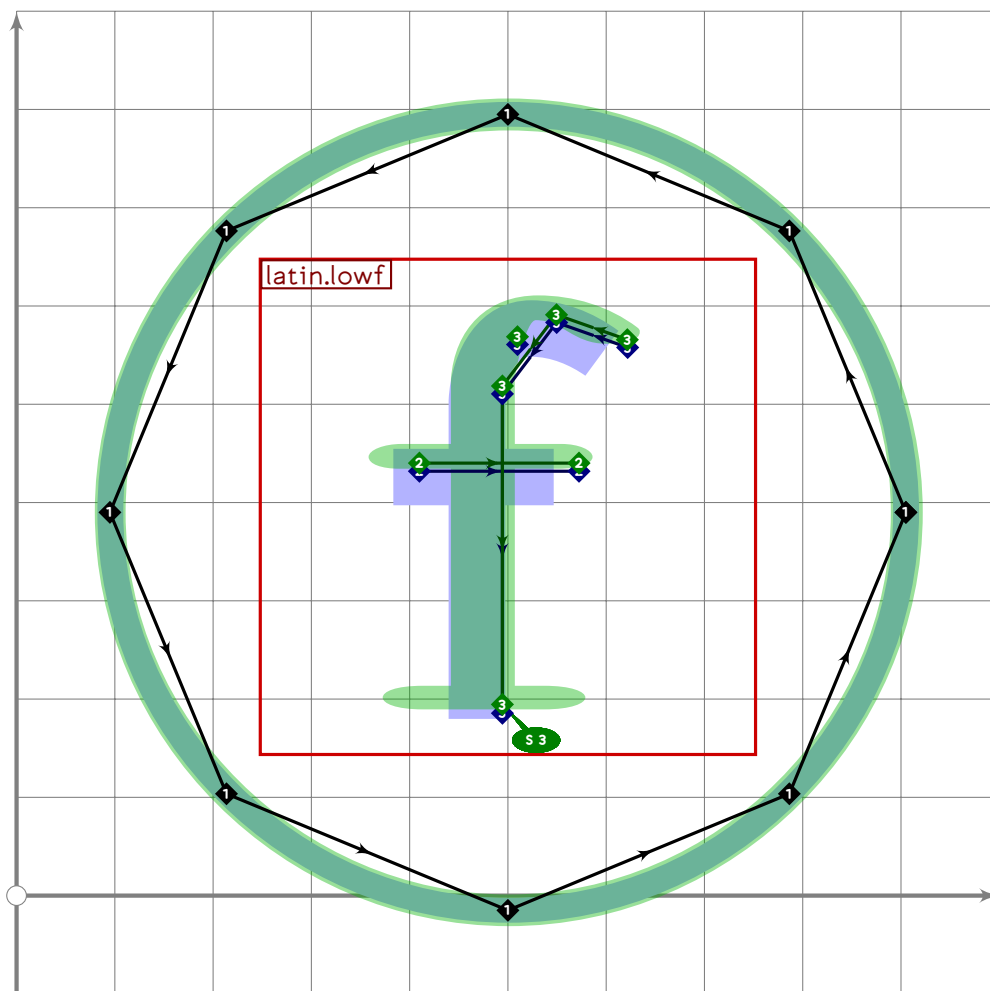
```

427 % e
428 begintsuglyph("uni24D4";212);
429   circle.single;
430   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowe);
431   tsu_render_in_circle(tsu_xf.cbound);
432 endtsuglyph;
433

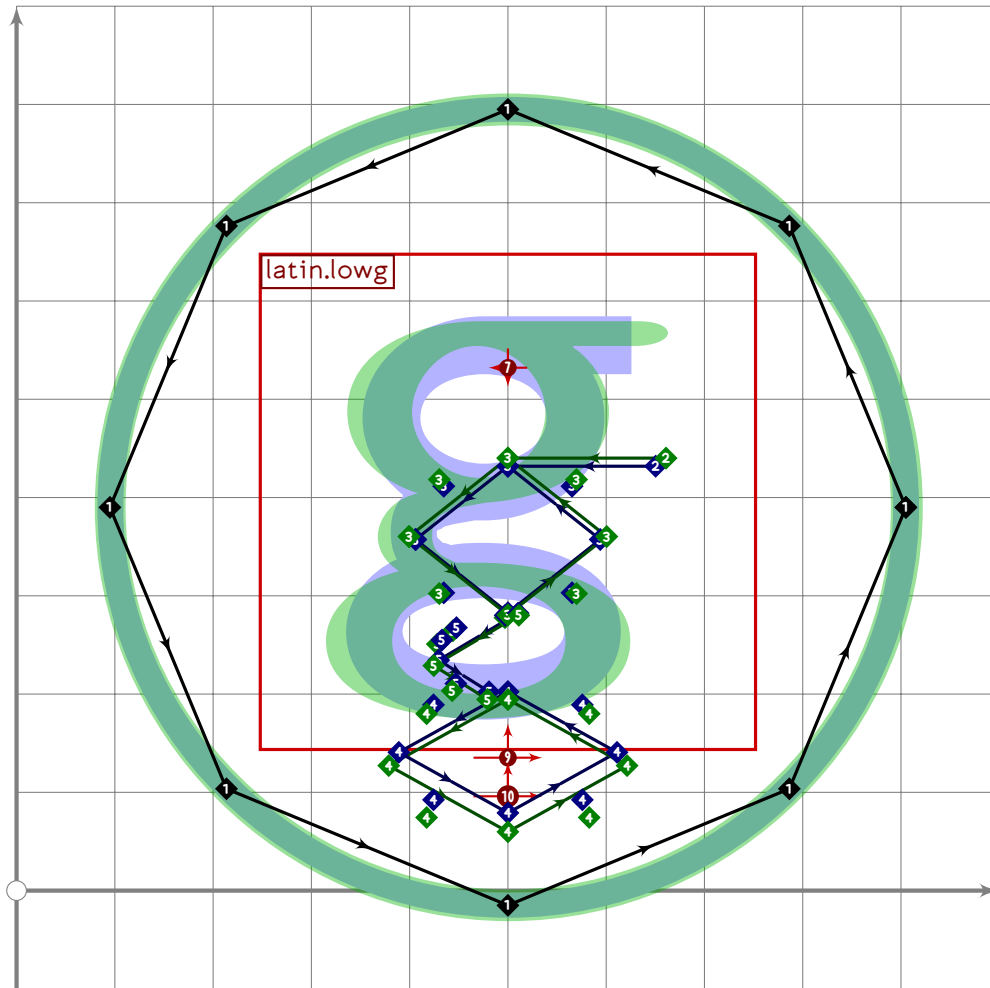
```

U+24D5
tsuku.uni24D5

24



```
434 % f
435 begint Suglyph("uni24D5";213);
436   circle.single;
437   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowf);
438   tsu_render_in_circle(tsu_xf.cbound);
439 endtsuglyph;
440
```



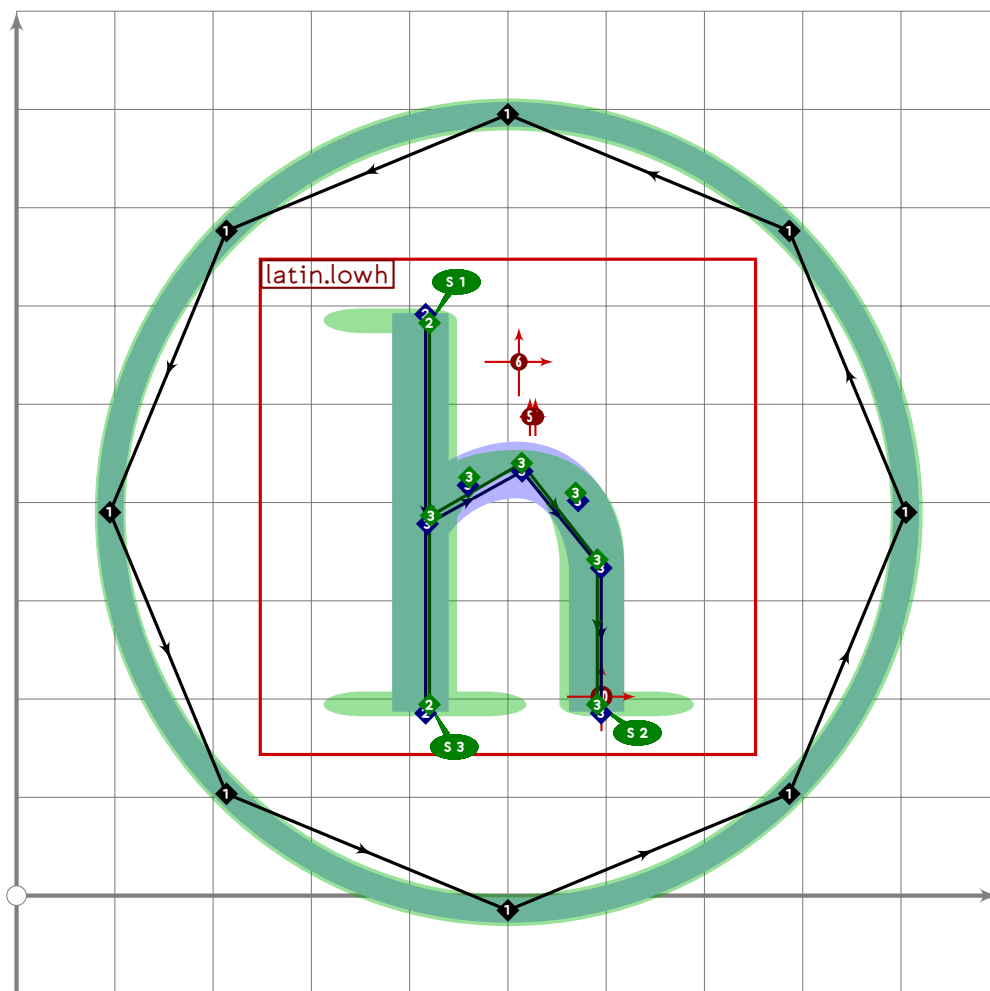
```

441 % g
442 begintsuglyph("uni24D6";214);
443   circle.single;
444   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowg);
445   tsu_render_in_circle(tsu_xf.cbound);
446 endtsuglyph;
447

```

U+24D7
tsuku.uni24D7

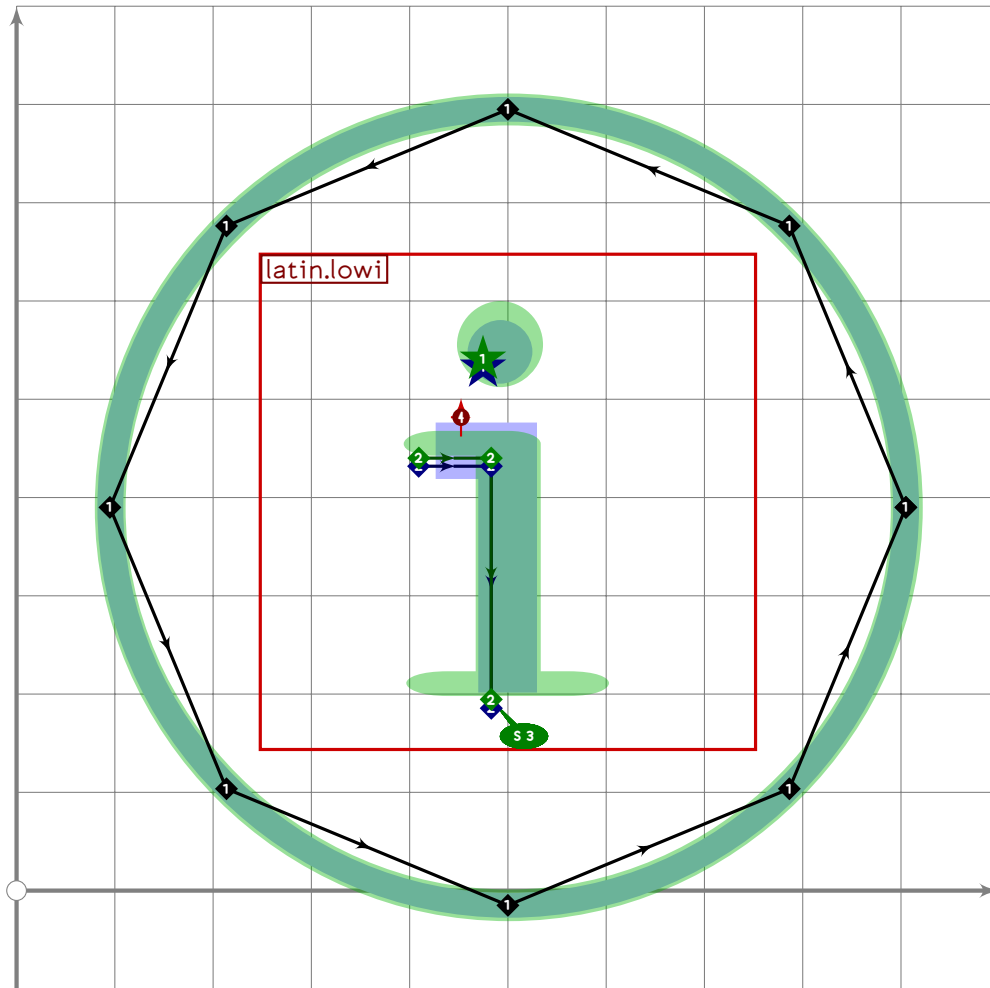
24



```

448 % h
449 begintsuglyph("uni24D7";215);
450   circle.single;
451   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowh);
452   tsu_render_in_circle(tsu_xf.cbound);
453 endtsuglyph;
454

```



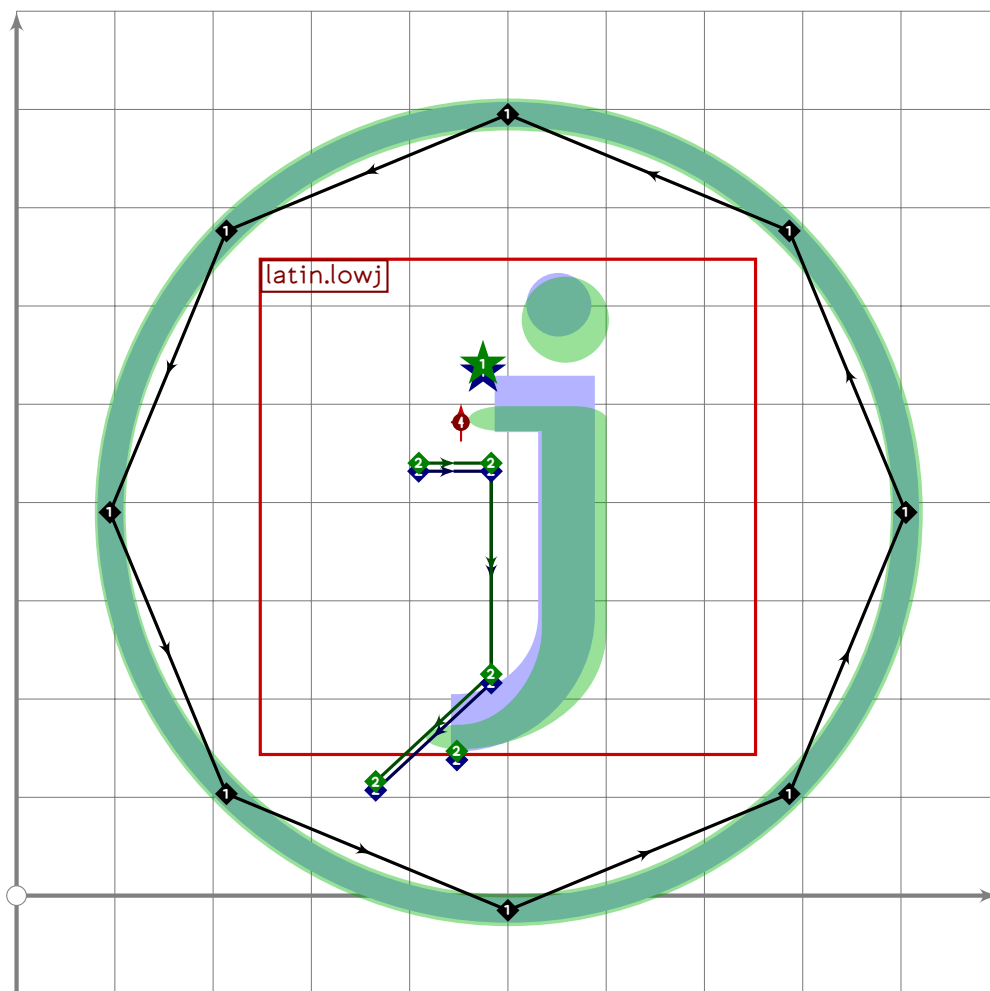
```

455 % i
456 begintsuglyph("uni24D8";216);
457   circle.single;
458   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowi);
459   tsu_render_in_circle(tsu_xf.cbound);
460 endtsuglyph;
461

```

U+24D9
tsuku.uni24D9

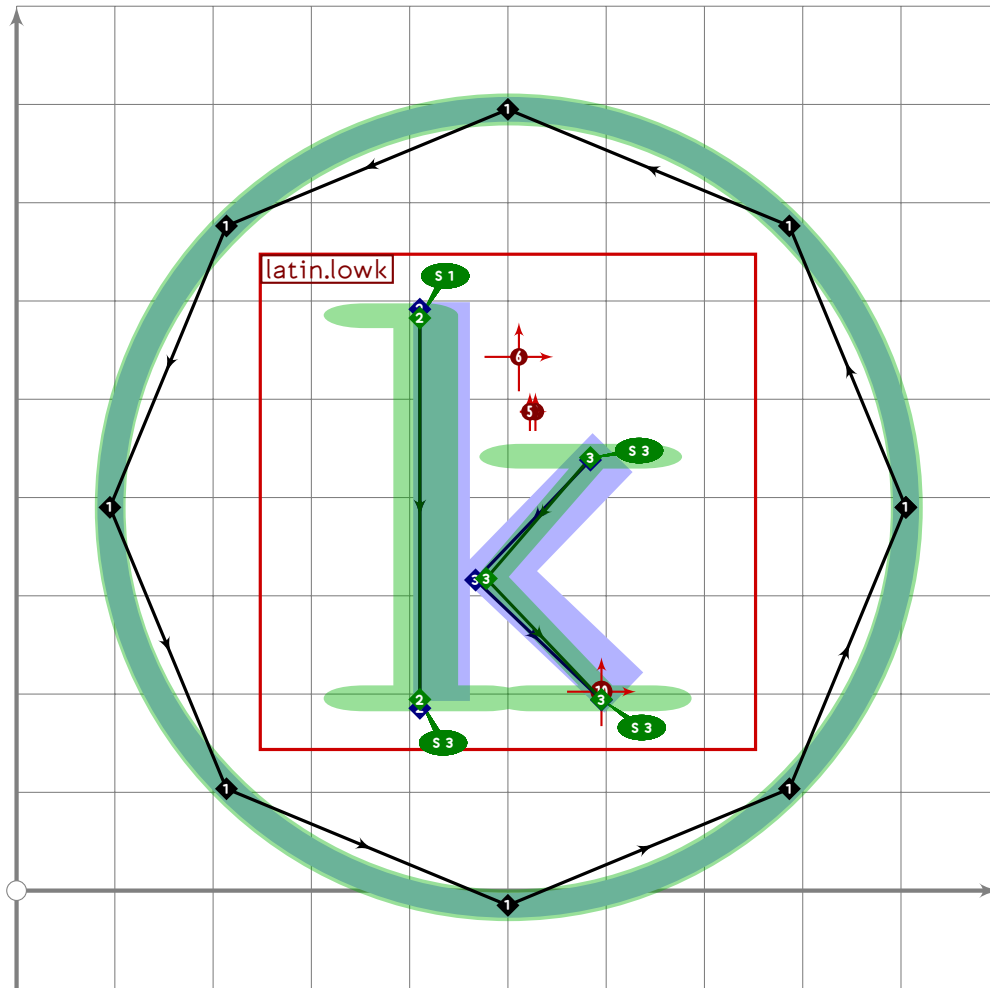
24



```

462 % j
463 begintsuglyph("uni24D9";217);
464   circle.single;
465   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowj);
466   tsu_render_in_circle(tsu_xf.cbound);
467 endtsuglyph;
468

```



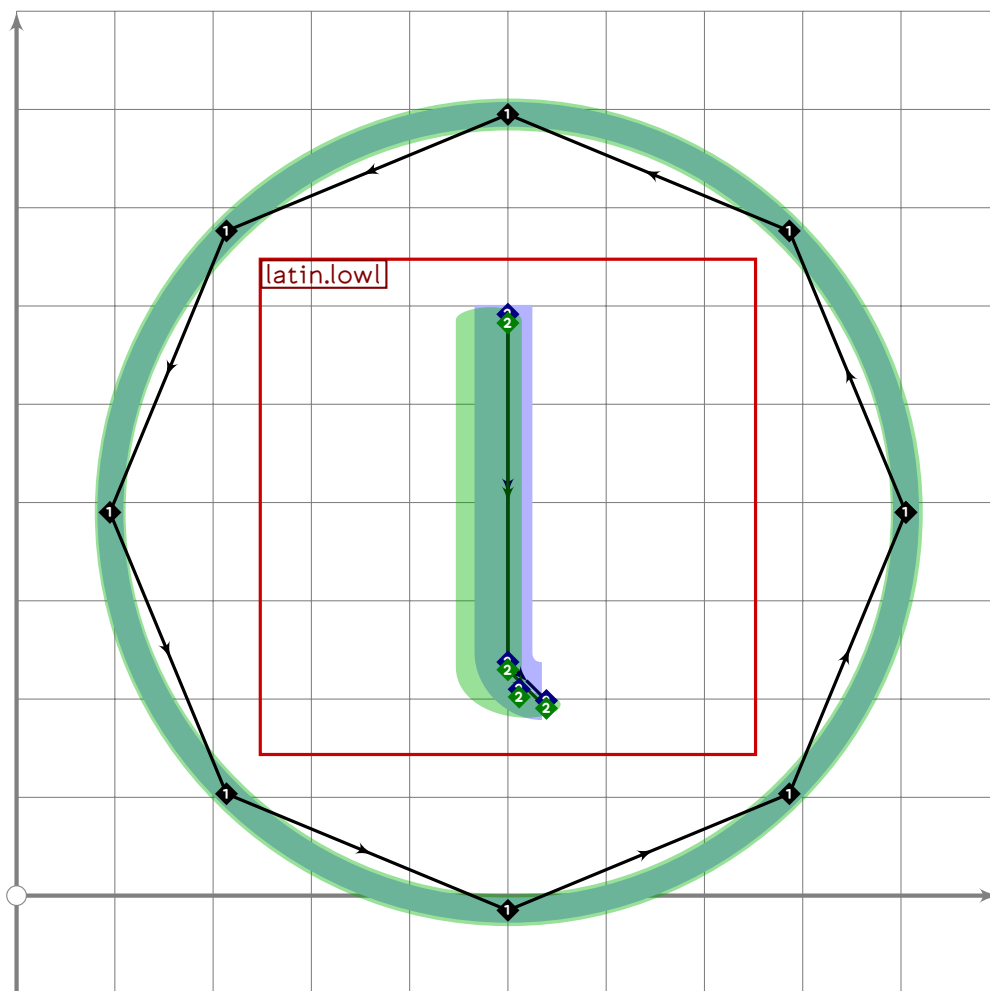
```

469 % k
470 begintsuglyph("uni24DA";218);
471   circle.single;
472   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowk);
473   tsu_render_in_circle(tsu_xf.cbound);
474 endtsuglyph;
475

```

U+24DB
tsuku.uni24DB

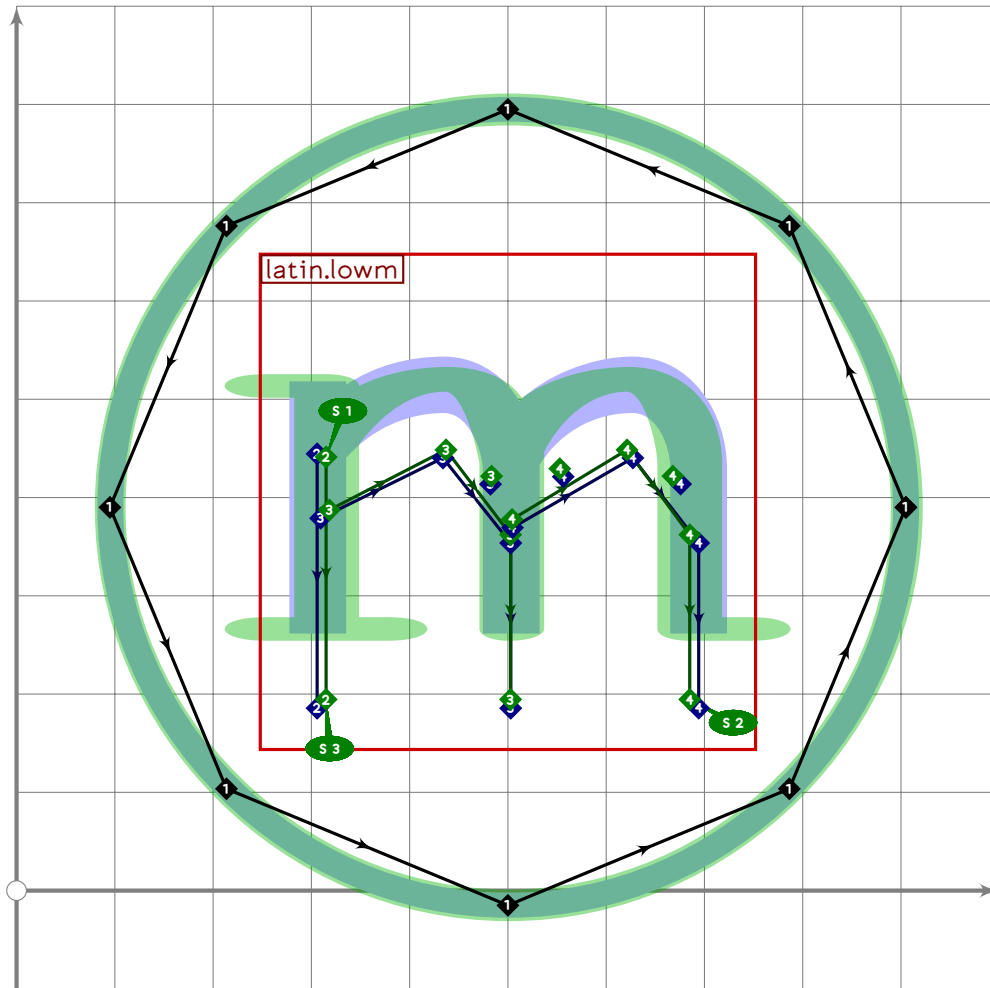
24



```

476 % l
477 begintsuglyph("uni24DB";219);
478   circle.single;
479   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowl);
480   tsu_render_in_circle(tsu_xf.cbound);
481 endtsuglyph;
482

```

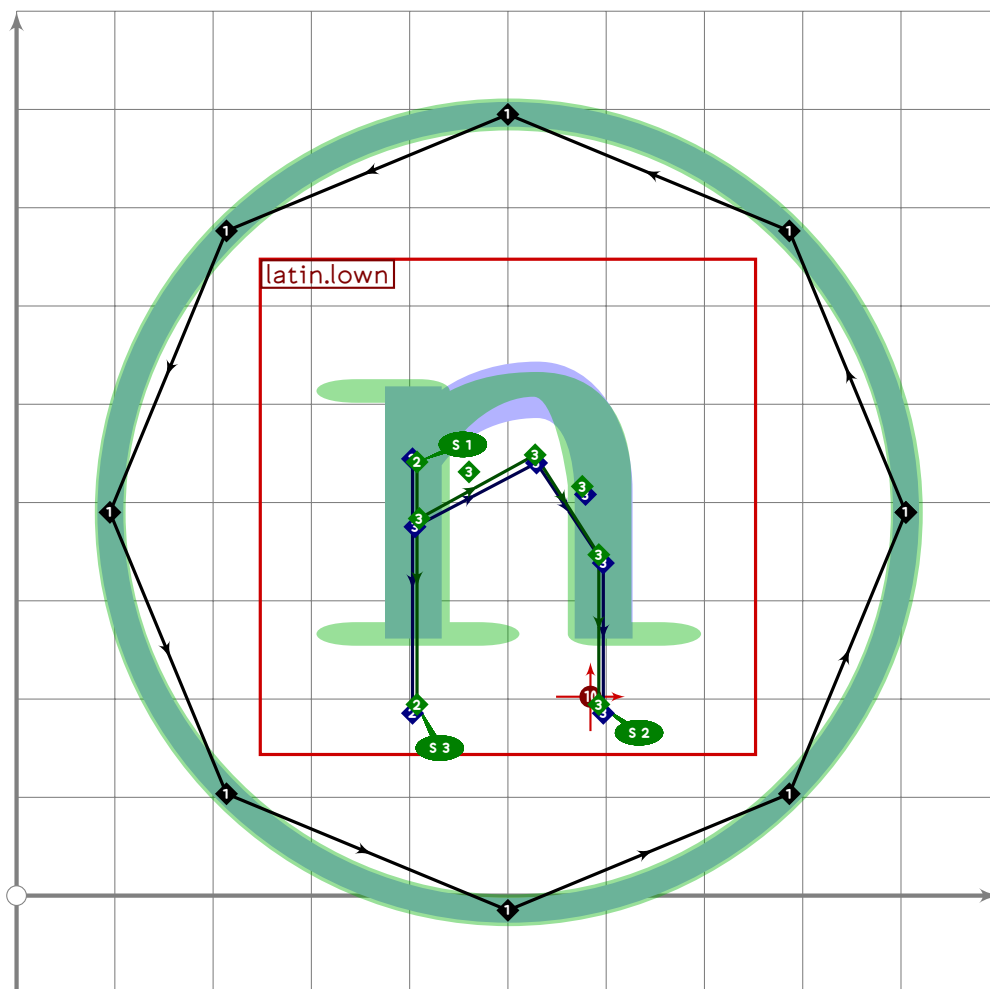
```

483 % m
484 begintsuglyph("uni24DC";220);
485   circle.single;
486   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowm);
487   tsu_render_in_circle(tsu_xf.cbound);
488 endtsuglyph;
489

```

U+24DD
tsuku.uni24DD

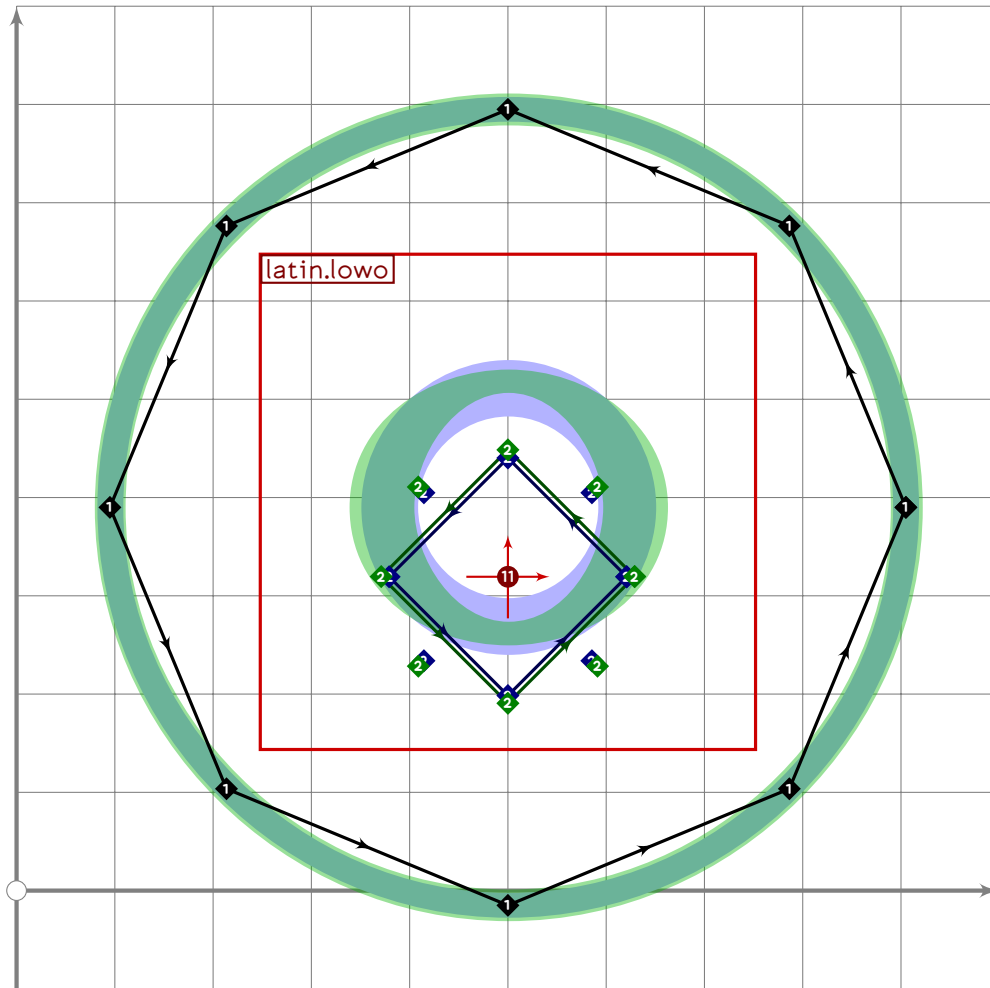
24



```

490 % n
491 begintsuglyph("uni24DD";221);
492   circle.single;
493   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lown);
494   tsu_render_in_circle(tsu_xf.cbound);
495 endtsuglyph;
496

```



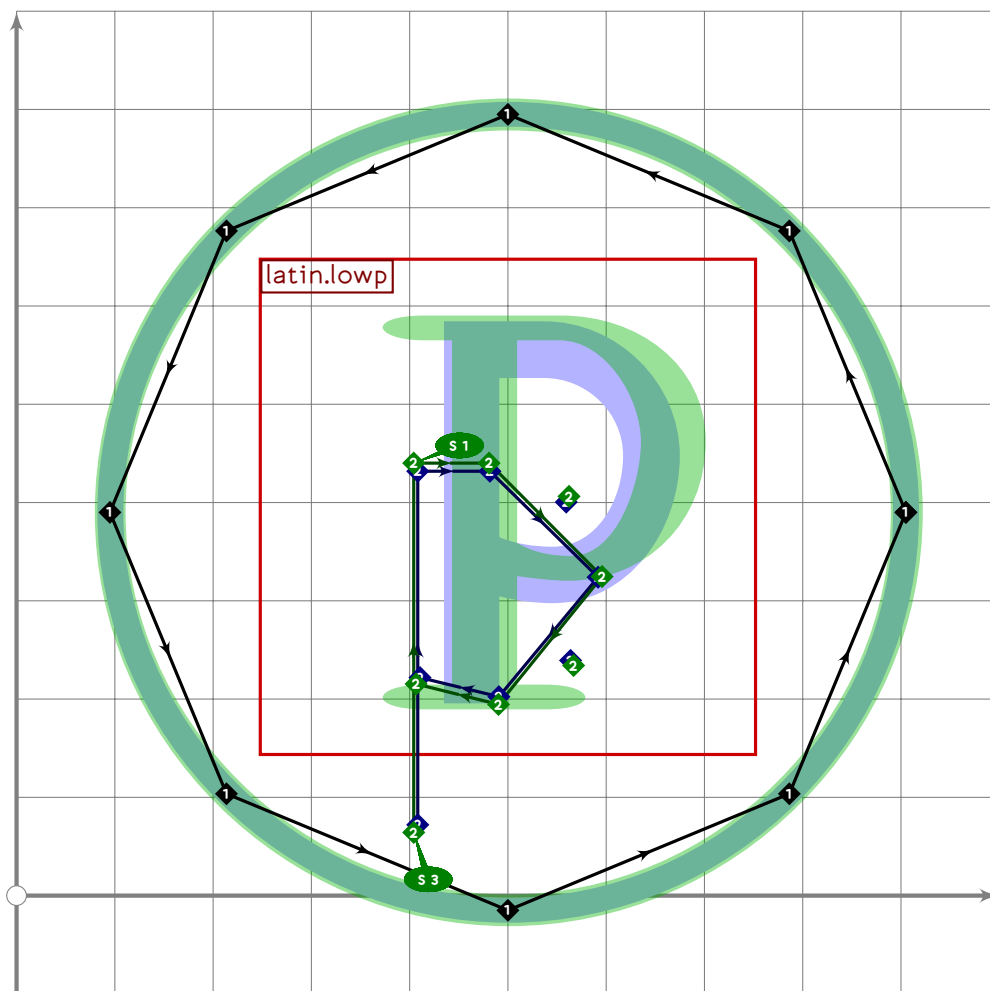
```

497 % o
498 begintsuglyph("uni24DE";222);
499   circle.single;
500   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowo);
501   tsu_render_in_circle(tsu_xf.cbound);
502 endtsuglyph;
503

```

U+24DF
tsuku.uni24DF

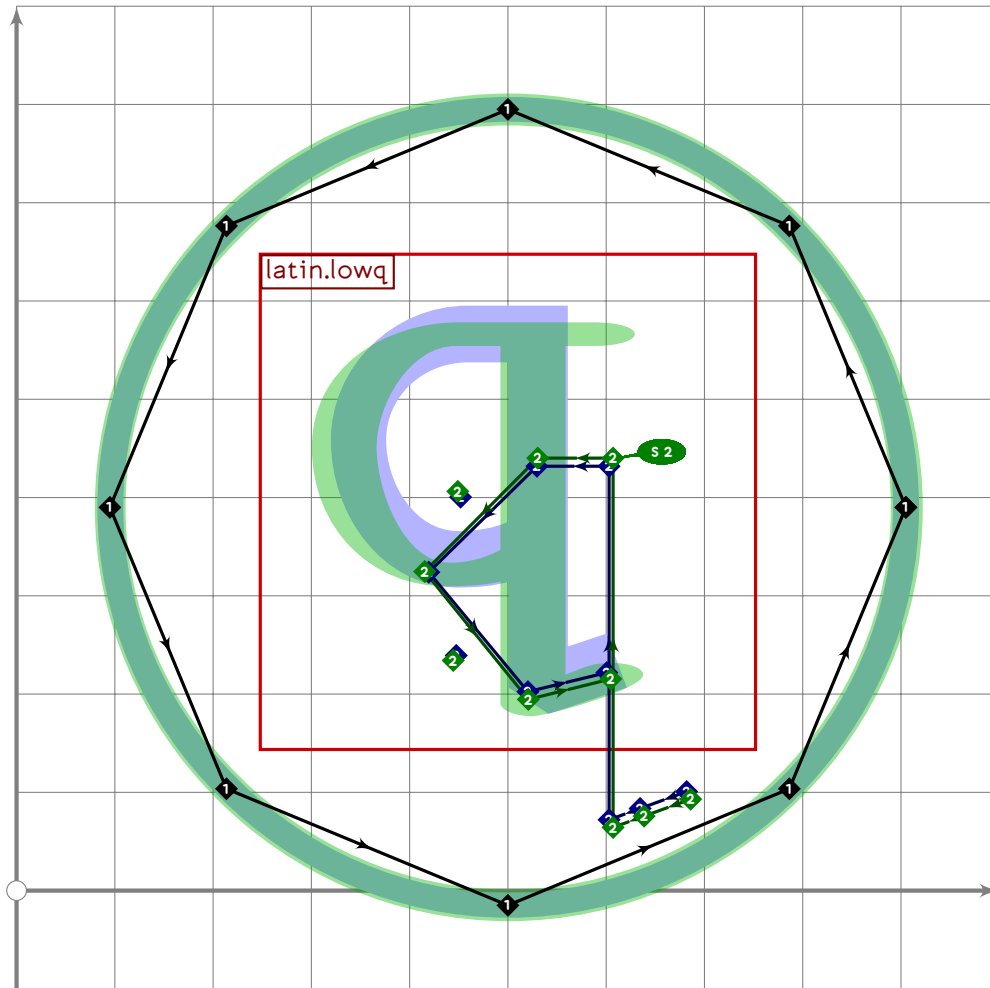
24



```

504 % p
505 begintsuglyph("uni24DF";223);
506   circle.single;
507   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowp);
508   tsu_render_in_circle(tsu_xf.cbound);
509 endtsuglyph;
510

```



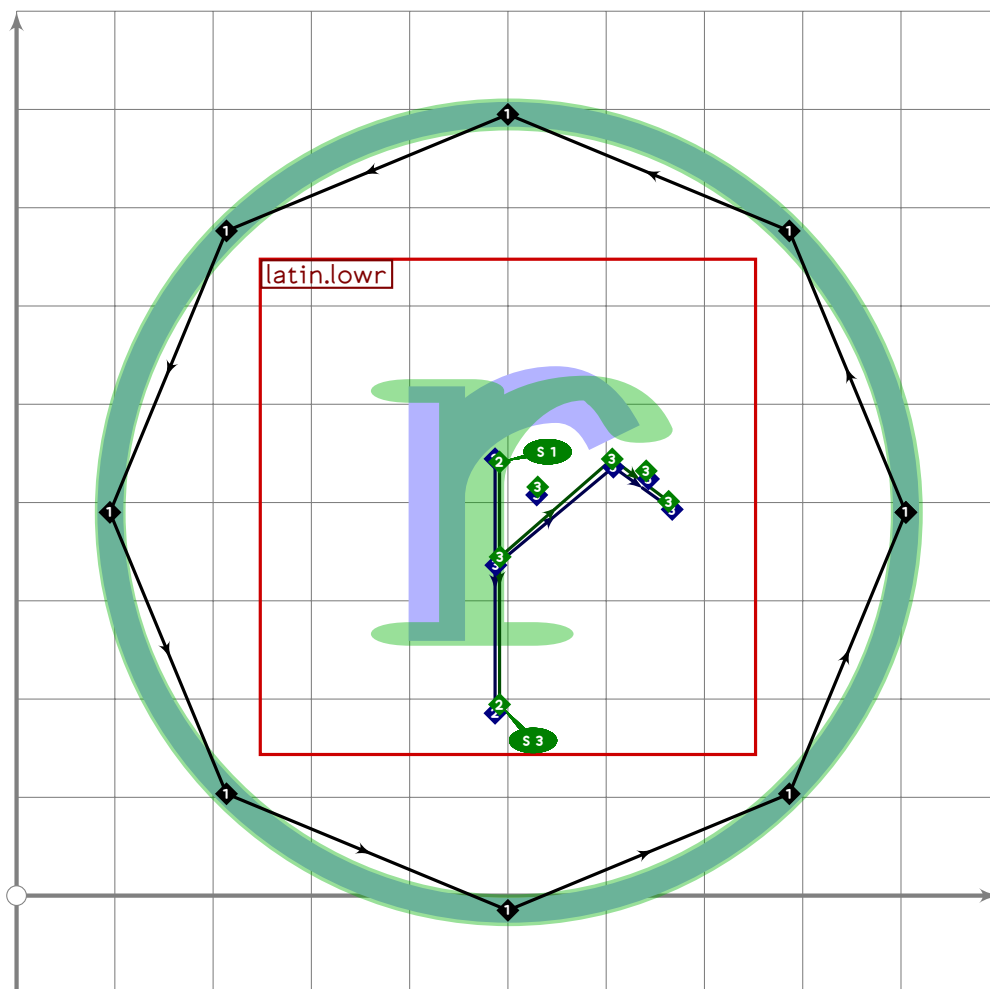
```

511 % q
512 begintsuglyph("uni24E0",224);
513   circle.single;
514   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowq);
515   tsu_render_in_circle(tsu_xf.cbound);
516 endtsuglyph;
517

```

U+24E1
tsuku.uni24E1

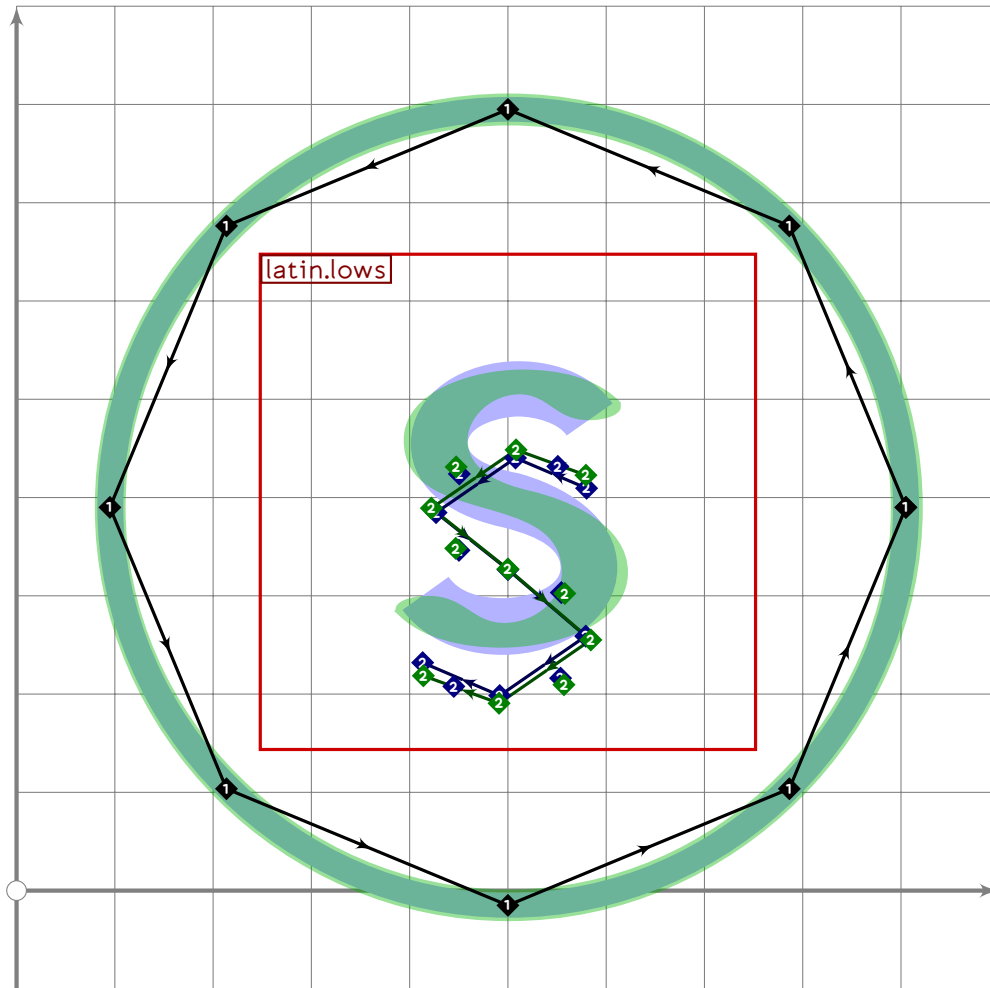
24



```

518 % r
519 begintsuglyph("uni24E1";225);
520   circle.single;
521   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lower);
522   tsu_render_in_circle(tsu_xf.cbound);
523 endtsuglyph;
524

```



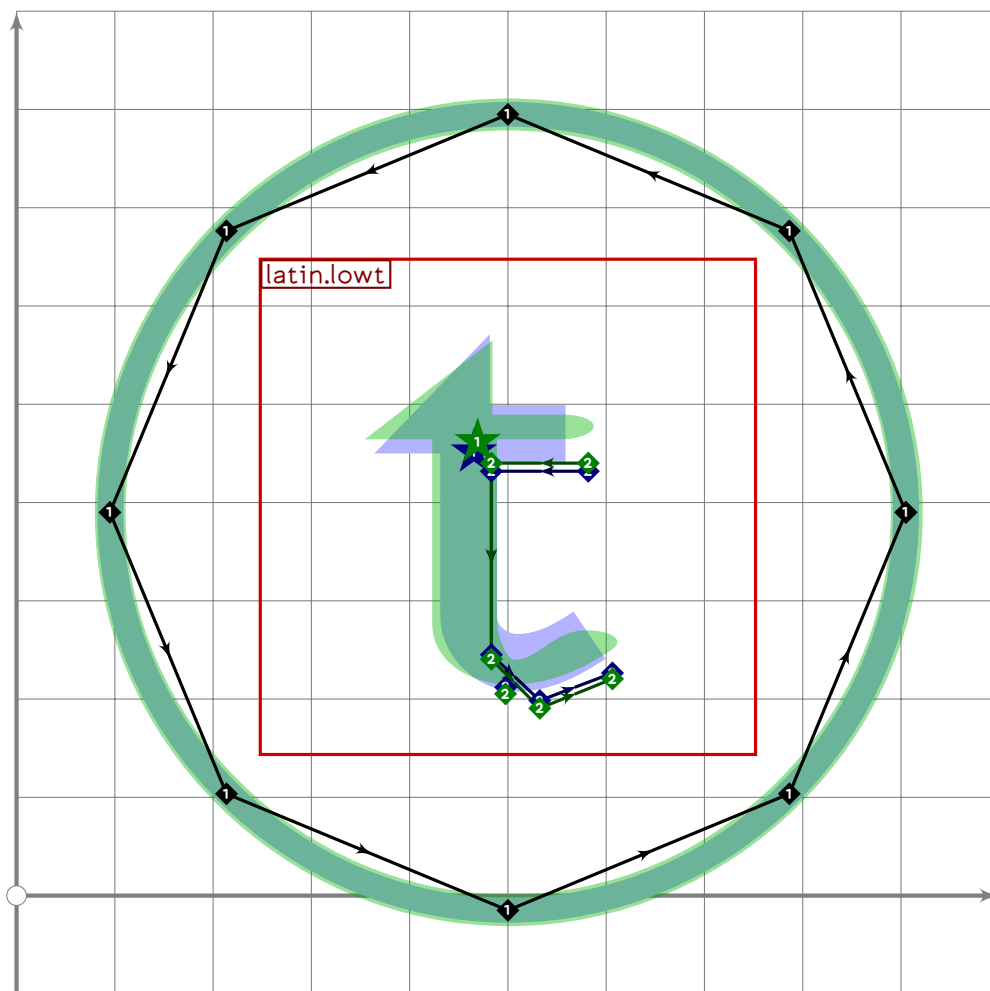
```

525 % s
526 begintsuglyph("uni24E2",226);
527   circle.single;
528   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lows);
529   tsu_render_in_circle(tsu_xf.cbound);
530 endtsuglyph;
531

```

U+24E3
tsuku.uni24E3

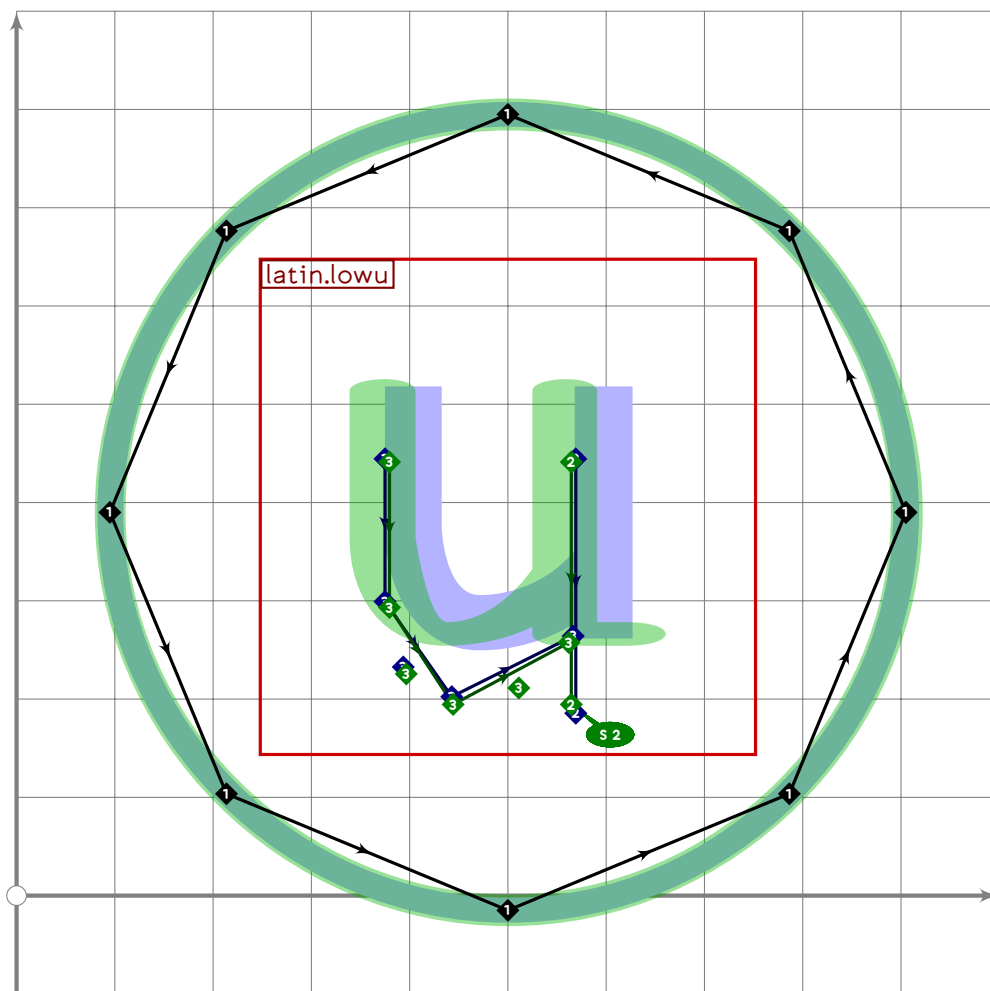
24



```

532 % t
533 beginsuglyph("uni24E3",227);
534   circle.single;
535   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowt);
536   tsu_render_in_circle(tsu_xf.cbound);
537 endtsuglyph;
538

```

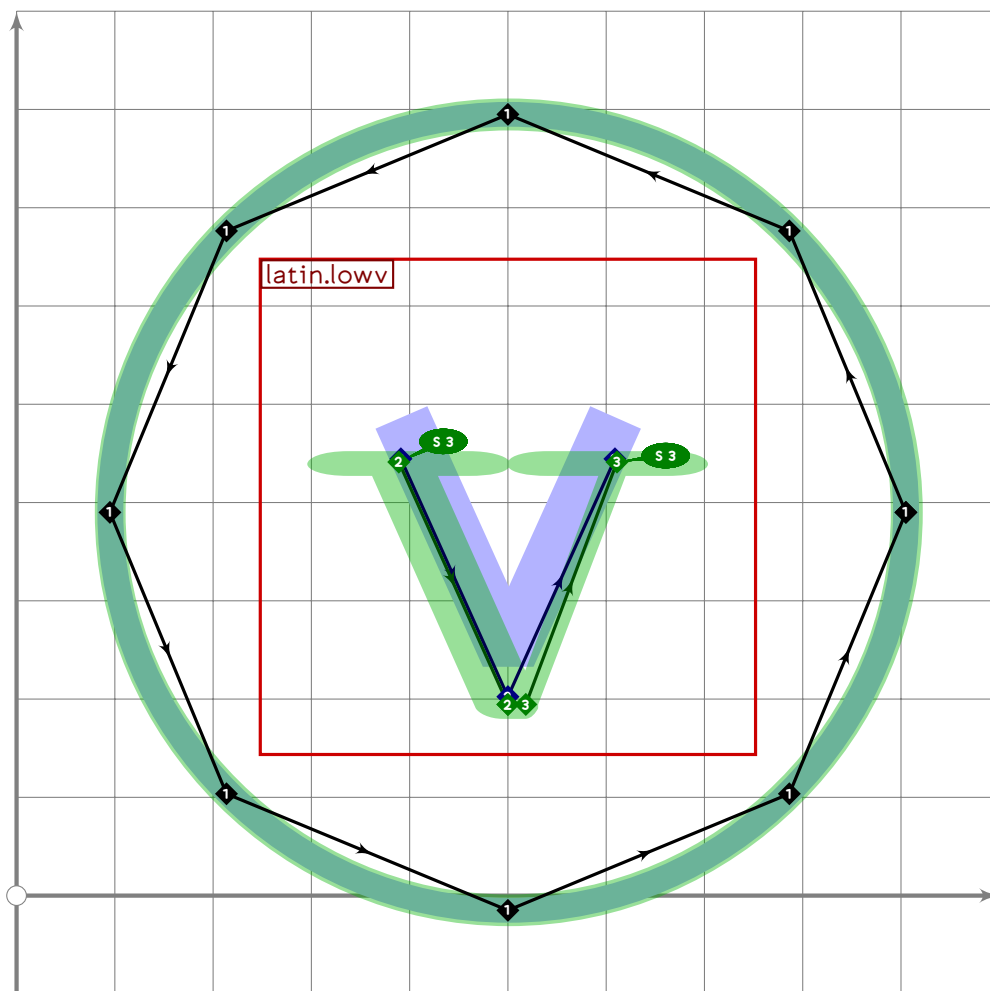
```

539 % u
540 begintsuglyph("uni24E4",228);
541   circle.single;
542   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowu);
543   tsu_render_in_circle(tsu_xf.cbound);
544 endtsuglyph;
545

```

U+24E5
tsuku.uni24E5

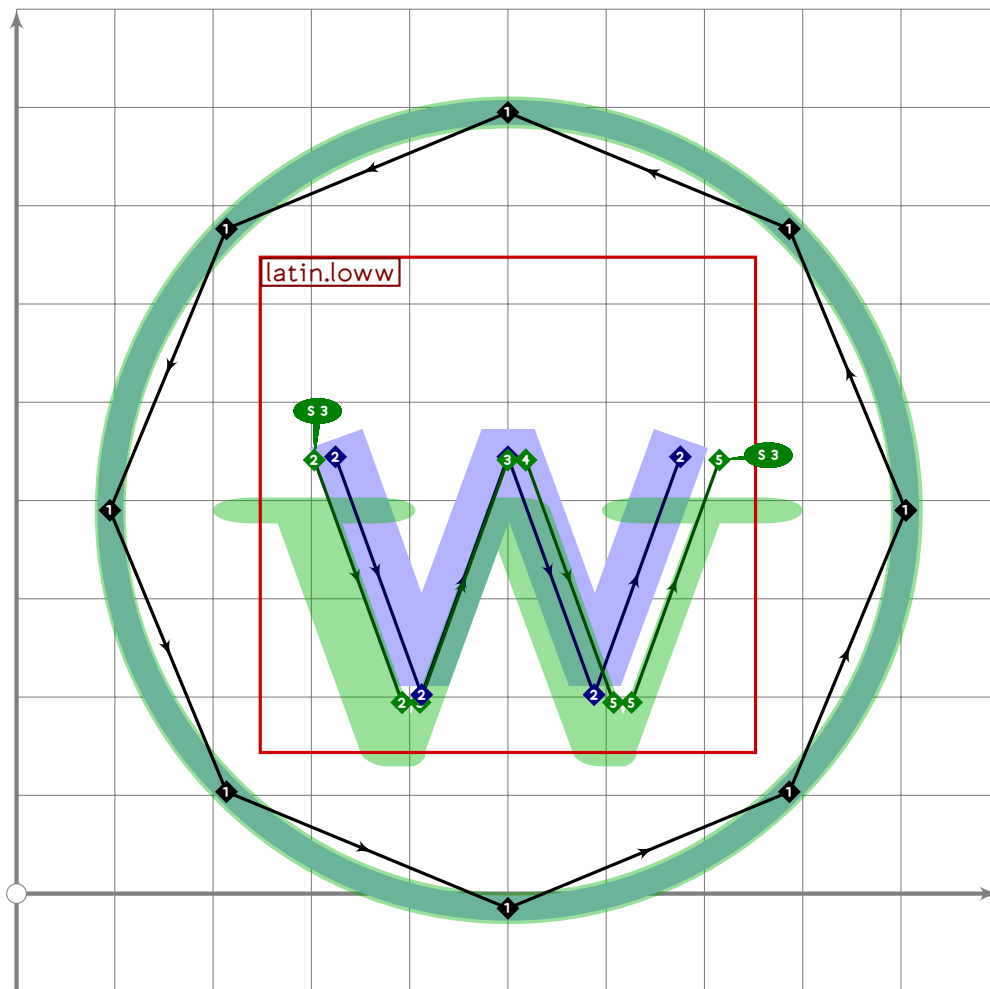
24



```

546 % v
547 begintsuglyph("uni24E5",229);
548   circle.single;
549   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowv);
550   tsu_render_in_circle(tsu_xf.cbound);
551 endtsuglyph;
552

```



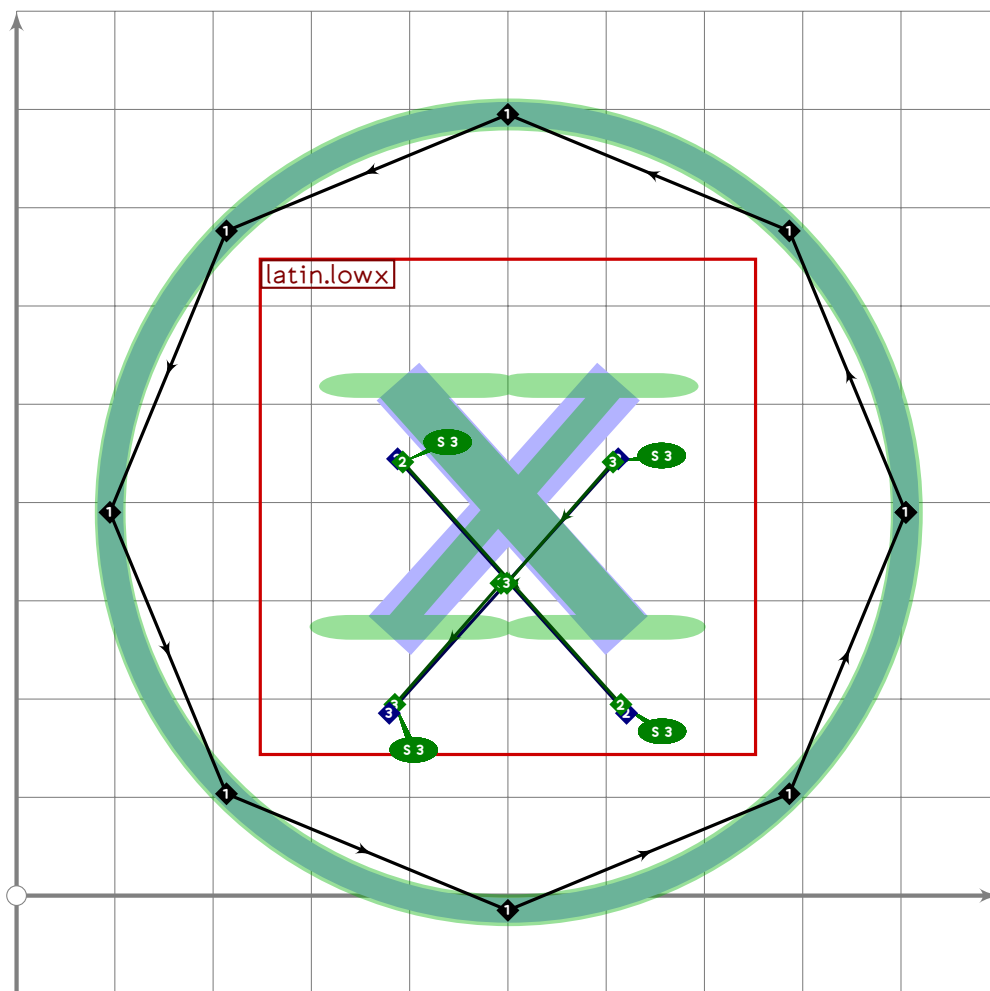
```

553 % w
554 begintsuglyph("uni24E6";230);
555   circle.single;
556   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.loww);
557   tsu_render_in_circle(tsu_xf.cbound);
558 endtsuglyph;
559

```

U+24E7
tsuku.uni24E7

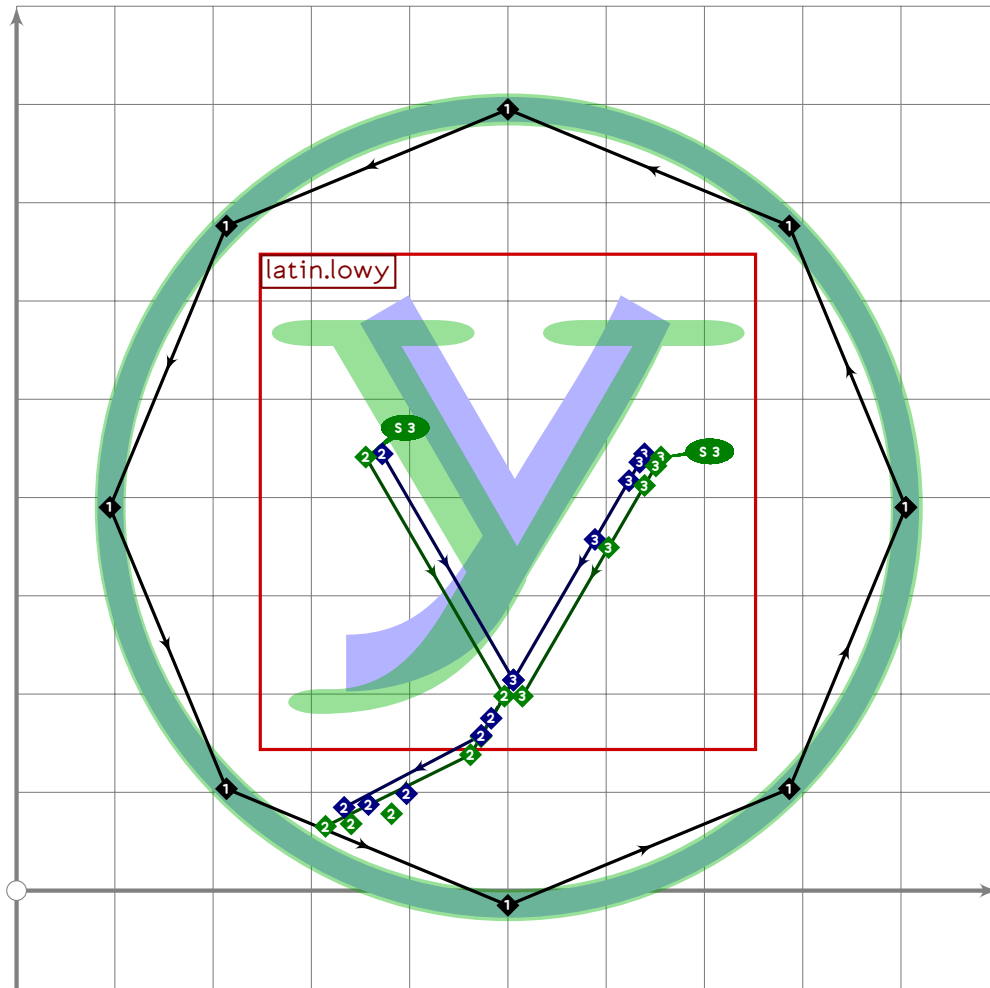
24



```

560 % x
561 begintsuglyph("uni24E7",231);
562   circle.single;
563   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowx);
564   tsu_render_in_circle(tsu_xf.cbound);
565 endtsuglyph;
566

```



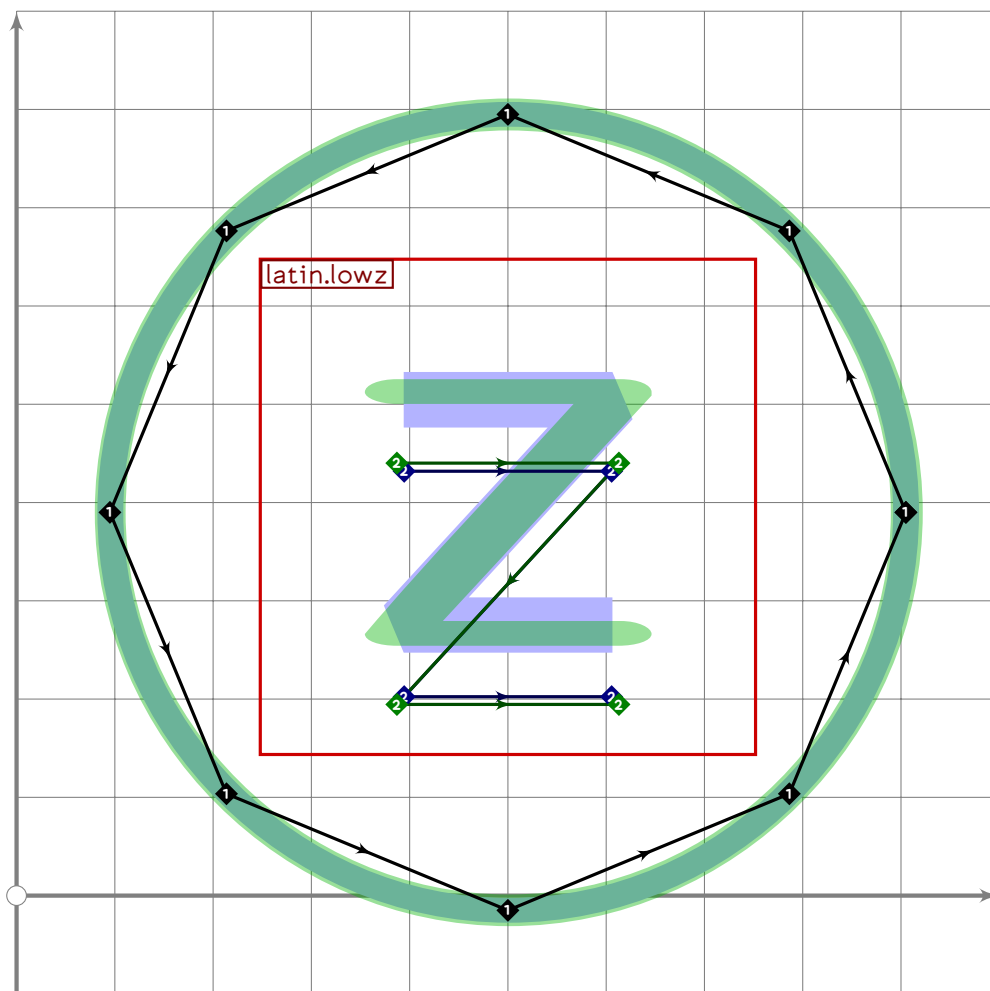
```

567 % y
568 begintsuglyph("uni24E8",232);
569   circle.single;
570   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowy);
571   tsu_render_in_circle(tsu_xf.cbound);
572 endtsuglyph;
573

```

U+24E9
tsuku.uni24E9

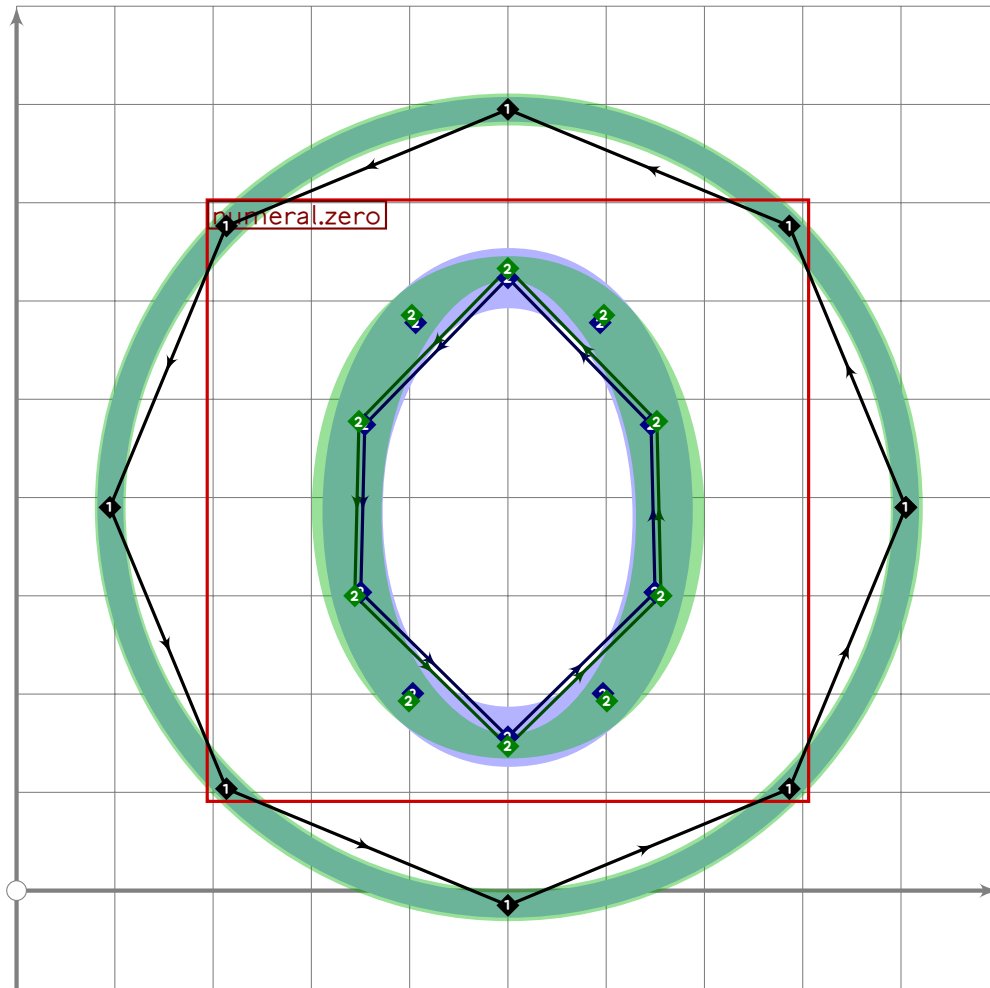
24



```

574 % z
575 begintsuglyph("uni24E9";233);
576   circle.single;
577   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowz);
578   tsu_render_in_circle(tsu_xf.cbound);
579 endtsuglyph;
580

```



```

581 % 0
582 begintsuglyph("uni24EA",234);
583   circle.single;
584   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.zero);
585   tsu_render;
586 endtsuglyph;
587
588
589
```

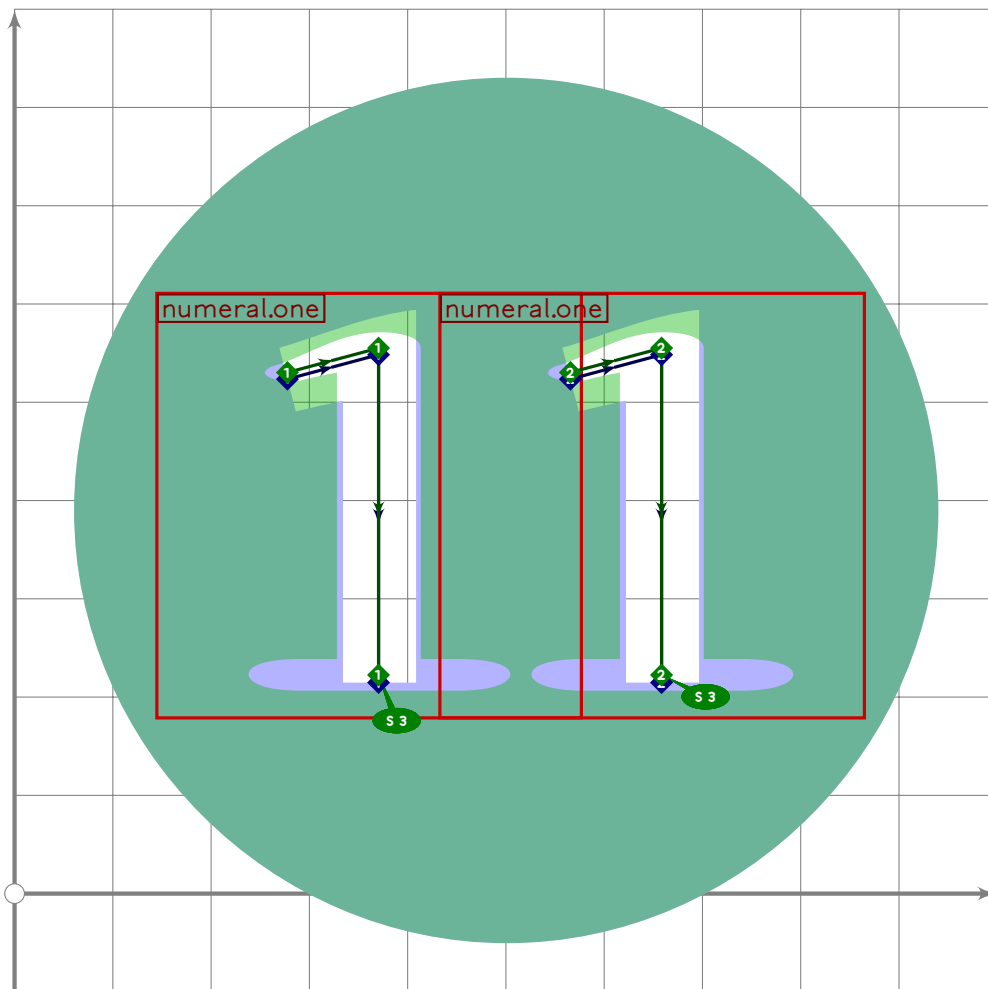
Inverted Circled Numerals

```

590 % INVERTED CIRCLED NUMERALS
591
```

U+24EB
tsuku.uni24EB

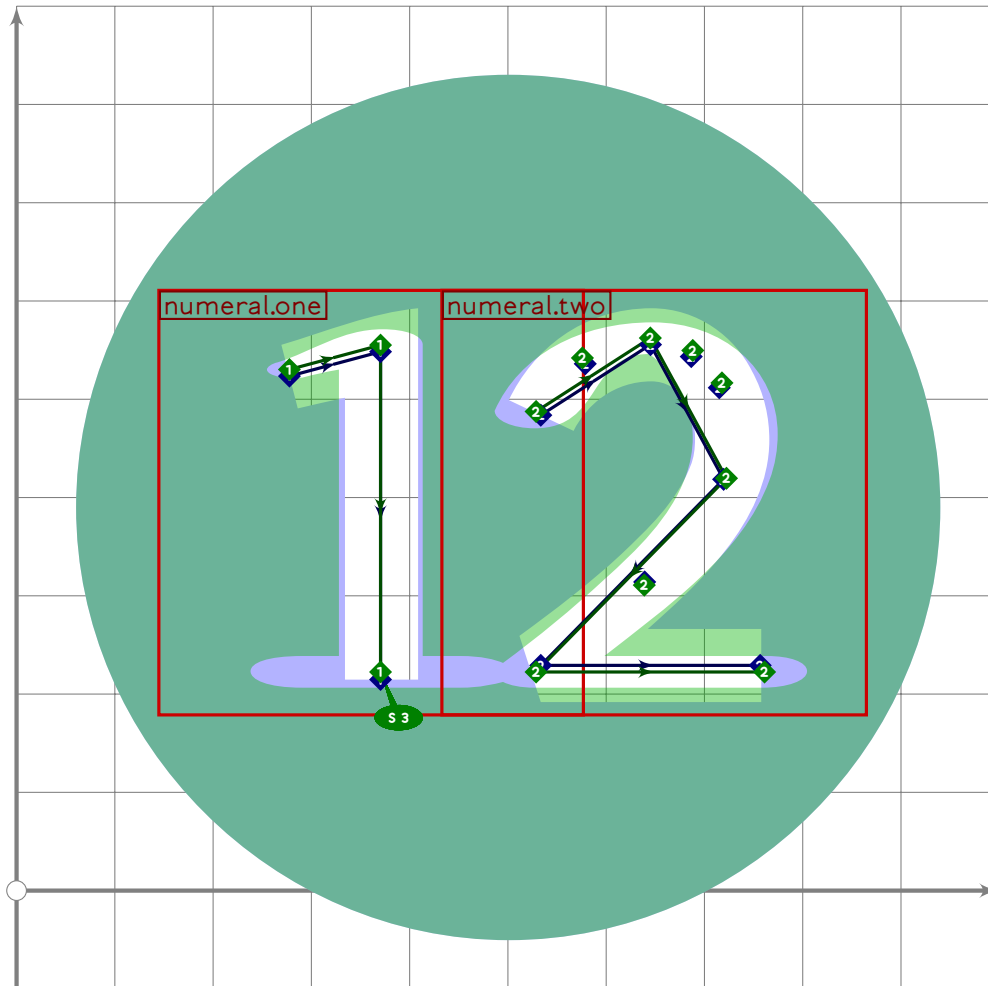
24



```

592 % 11
593 % BACKGROUND 25CF
594 begint Suglyph("uni24EB";235);
595   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
596   numeric x[],y[];
597   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.one);
598   i:=0; forever: exitif find_stroke(i)<1;
599     set_bosize(i,107); i:=i+1; endfor;
600   tsu_render;
601 endtsuglyph;
602

```

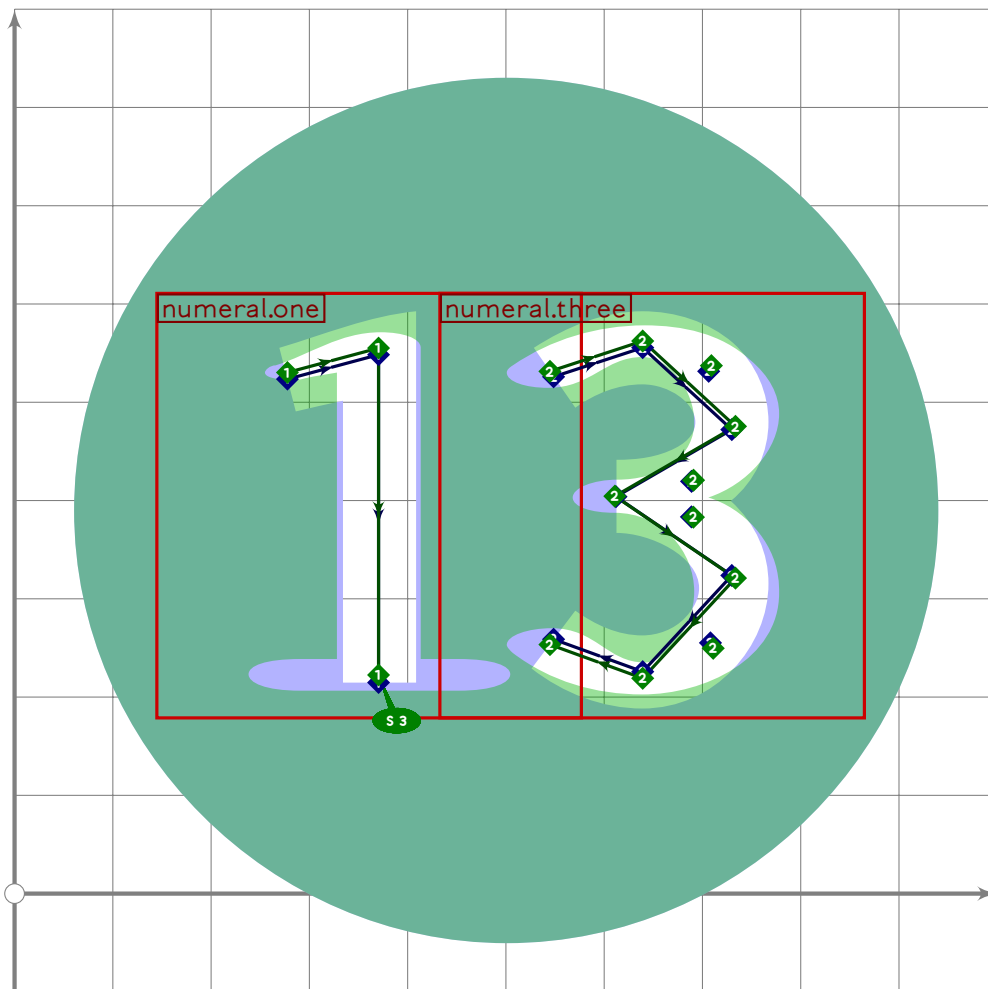
```

603 % 12
604 % BACKGROUND 25CF
605 begint Suglyph("uni24EC";236);
606   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
607   numeric x[],y[];
608   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.two);
609   i:=0; forever: exitif find_stroke(i)<1;
610     set_bosize(i,107); i:=i-1; endfor;
611   tsu_render;
612 endtsuglyph;
613

```

U+24ED
tsuku.uni24ED

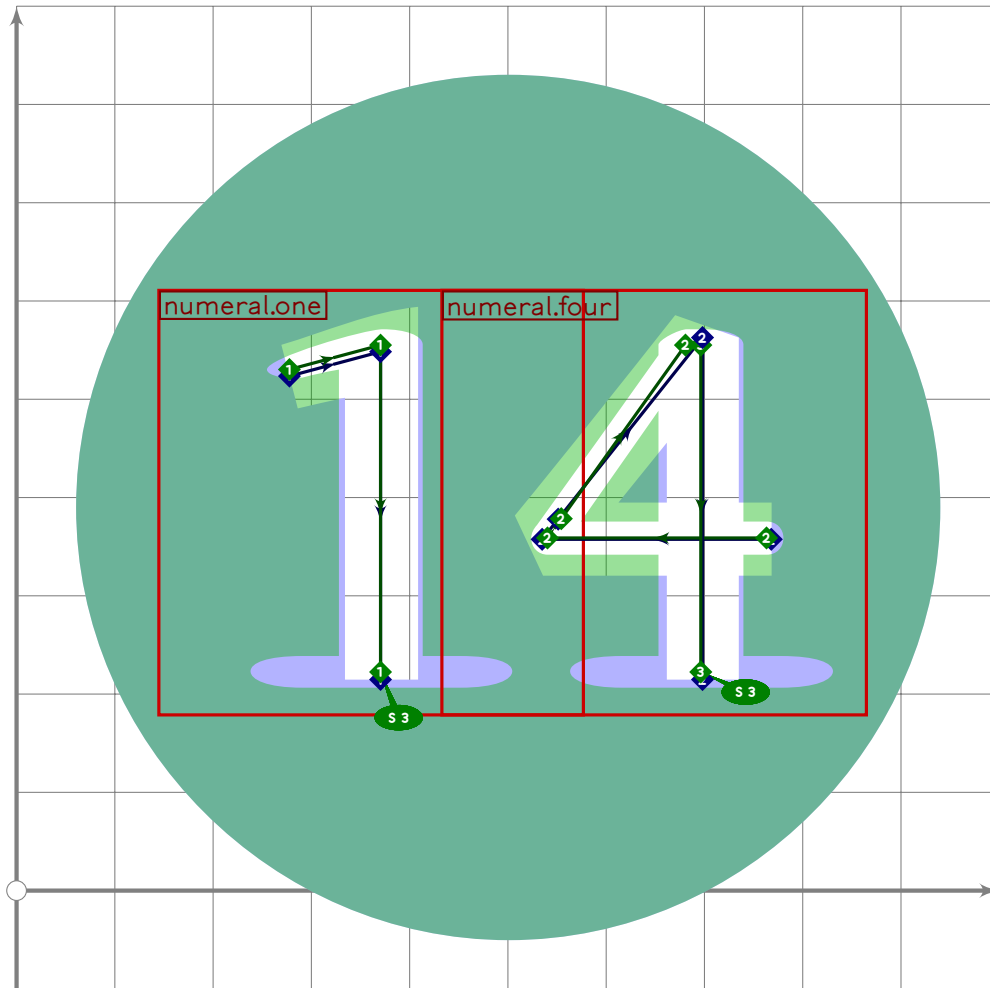
24



```

614 % 13
615 % BACKGROUND 25CF
616 begint Suglyph("uni24ED";237);
617   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
618   numeric x[],y[];
619   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)
620     (numeral.three);
621   i:=0; forever: exitif find_stroke(i)<1;
622     set_bosize(i,107); i:=i-1; endfor;
623   tsu_render;
624 endtsuglyph;
625

```



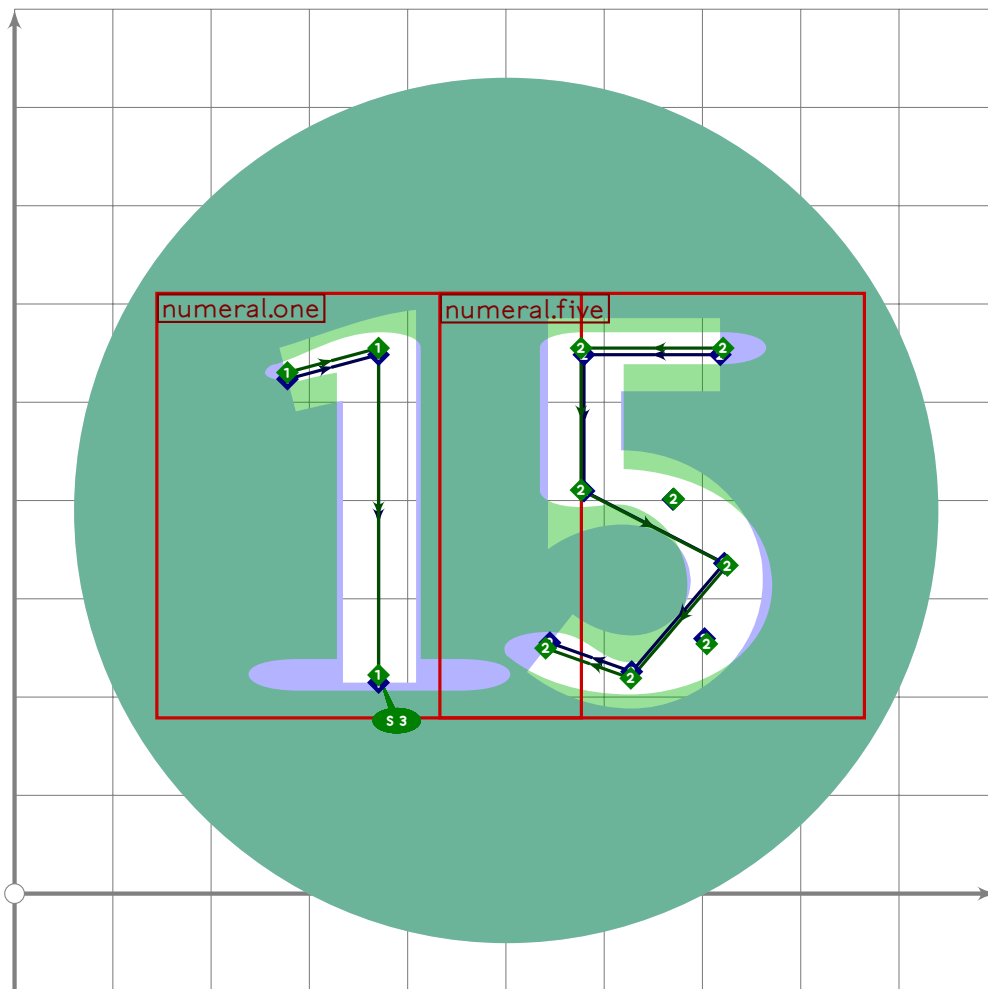
```

626 % 14
627 % BACKGROUND 25CF
628 begint Suglyph("uni24EE";238);
629   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
630   numeric x[],y[];
631   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.four);
632   i:=0; forever: exitif find_stroke(i)<1;
633     set_bosize(i,107); i:=i+1; endfor;
634   tsu_render;
635 endtsuglyph;
636

```

U+24EF
tsuku.uni24EF

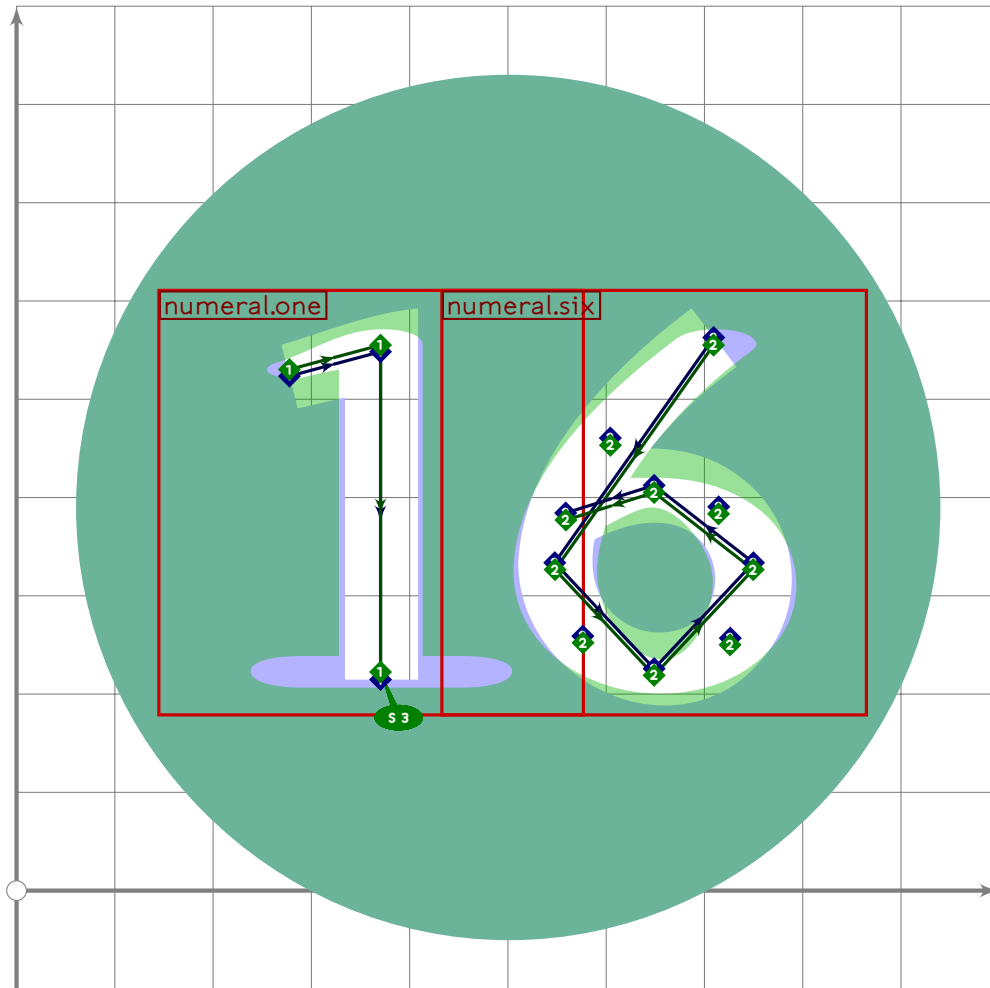
24



```

637 % 15
638 % BACKGROUND 25CF
639 begint Suglyph("uni24EF";239);
640   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
641   numeric x[],y[];
642   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.five);
643   i:=0; forever: exitif find_stroke(i)<1;
644     set_bosize(i,107); i:=i+1; endfor;
645   tsu_render;
646 endtsuglyph;
647

```



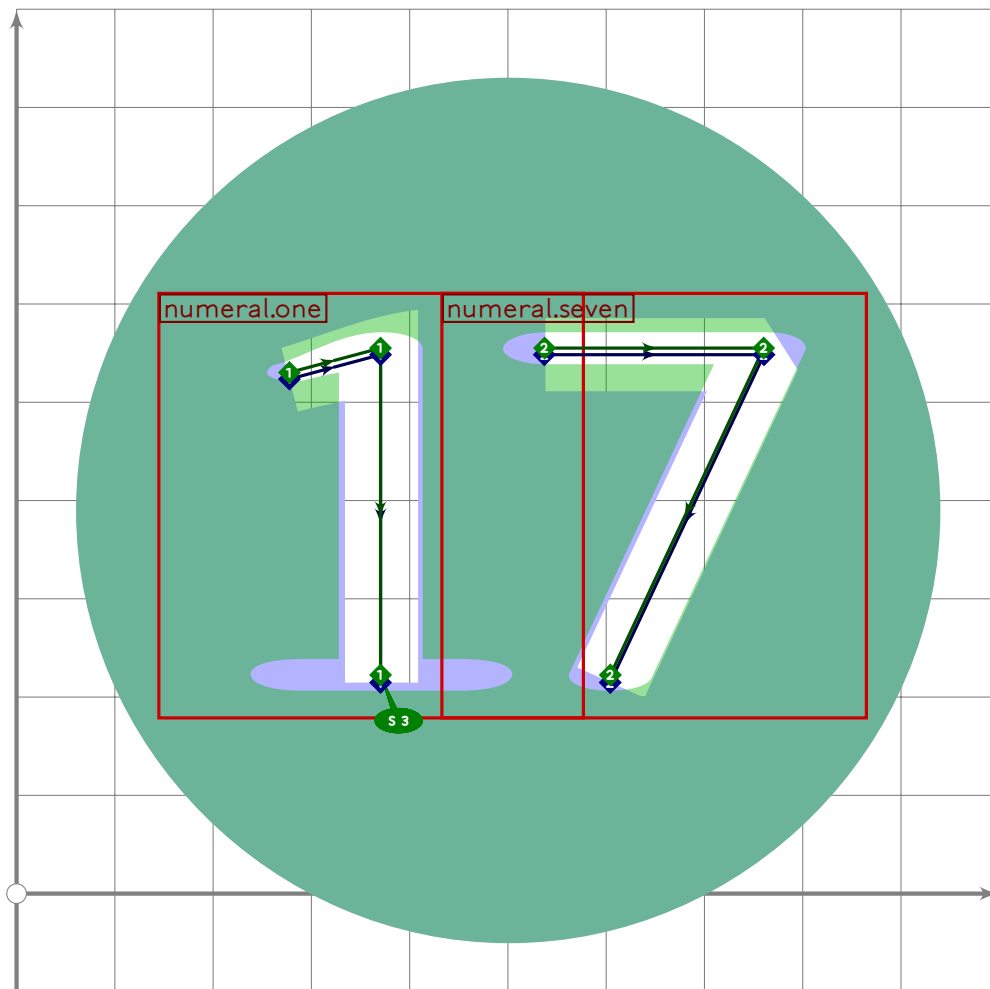
```

648 % 16
649 % BACKGROUND 25CF
650 begint Suglyph("uni24F0",240);
651   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
652   numeric x[],y[];
653   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.six);
654   i:=0; forever: exitif find_stroke(i)<1;
655     set_bosize(i,107); i:=i+1; endfor;
656   tsu_render;
657 endtsuglyph;
658

```

U+24F1
tsuku.uni24F1

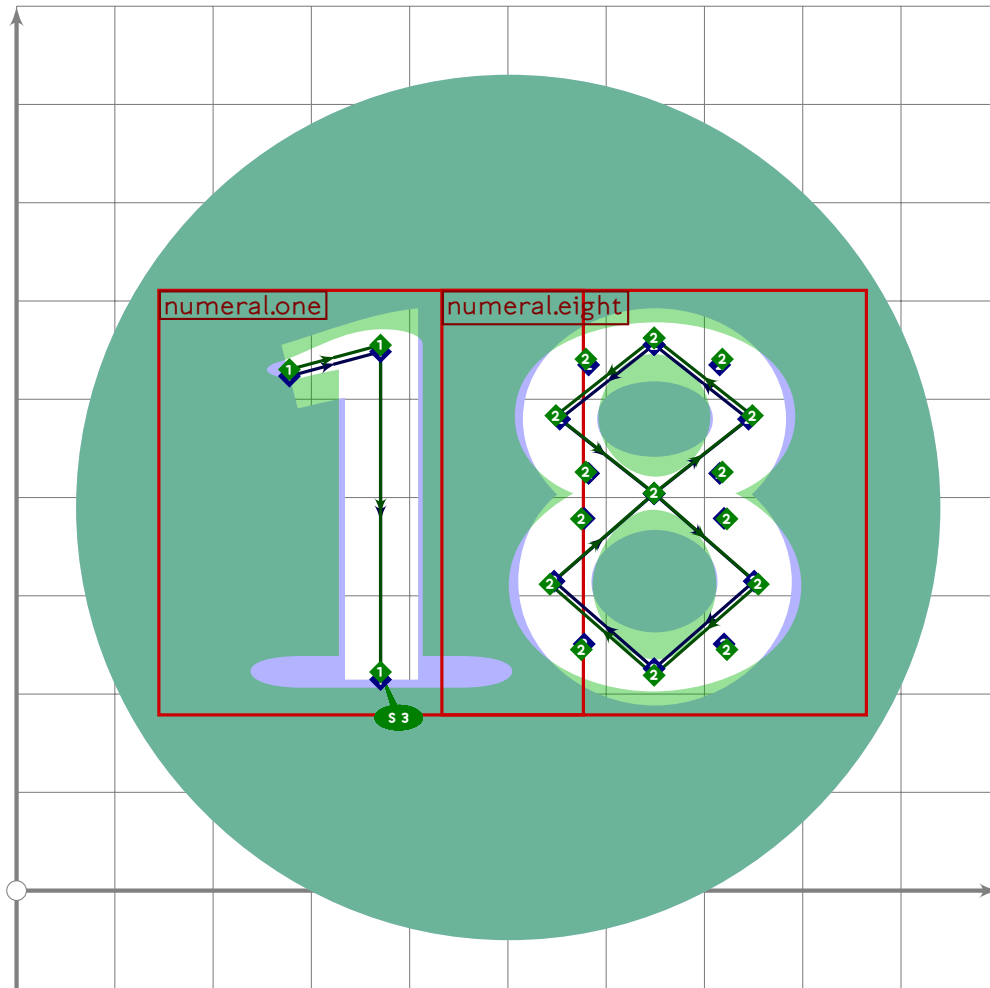
24



```

659 % 17
660 % BACKGROUND 25CF
661 begint Suglyph("uni24F1",241);
662   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
663   numeric x[],y[];
664   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)
665     (numeral.seven);
666   i:=0; forever: exitif find_stroke(i)<1;
667     set_bosize(i,107); i:=i-1; endfor;
668   tsu_render;
669 endtsuglyph;
670

```



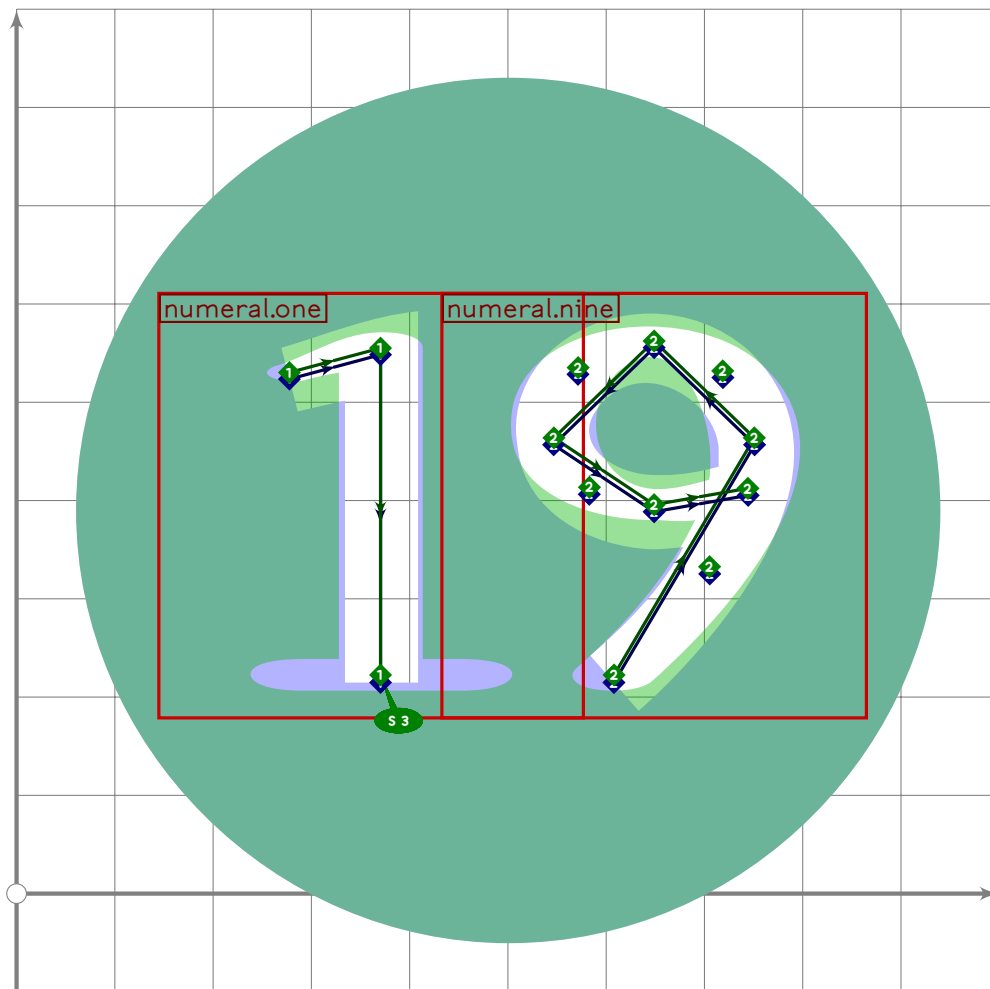
```

671 % 18
672 % BACKGROUND 25CF
673 begint Suglyph("uni24F2",242);
674   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
675   numeric x[],y[];
676   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)
677     (numeral.eight);
678   i:=0; forever: exitif find_stroke(i)<1;
679     set_bosize(i,107); i:=i-1; endfor;
680   tsu_render;
681 endtsuglyph;
682

```

U+24F3
tsuku.uni24F3

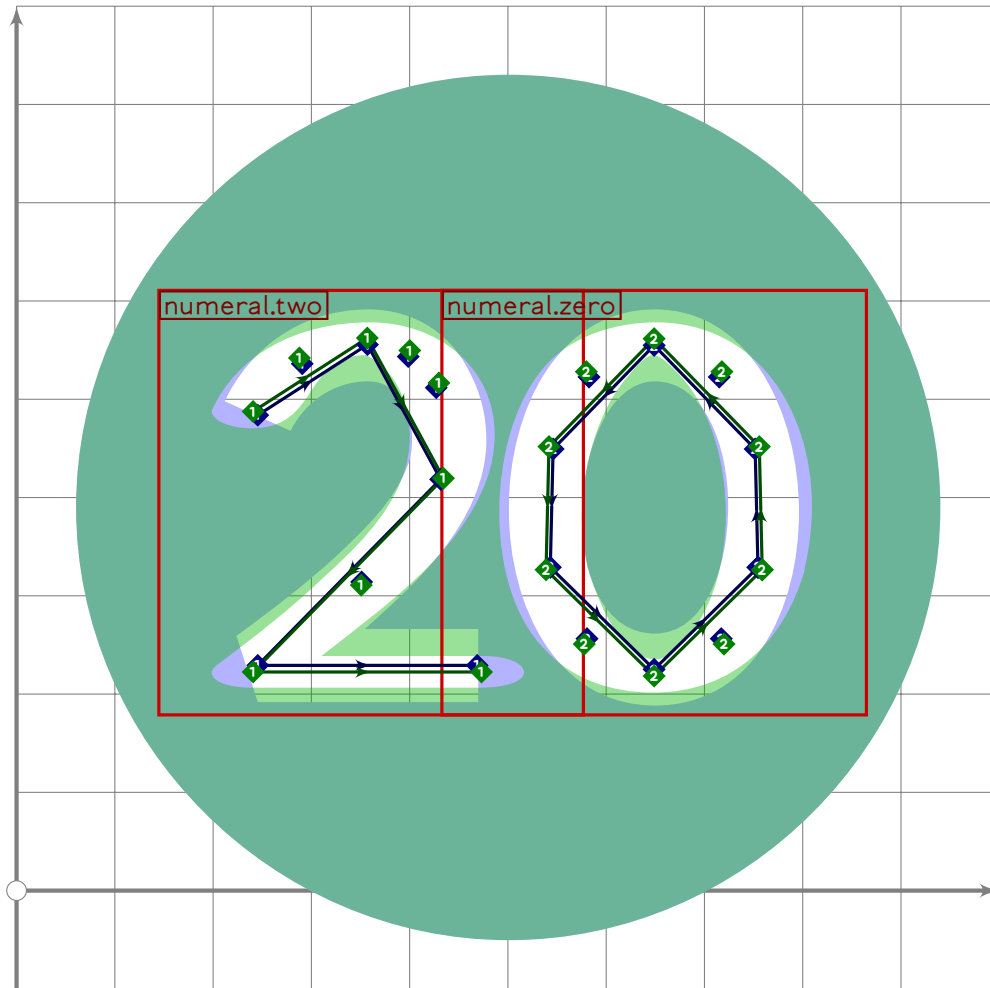
24



```

683 % 19
684 % BACKGROUND 25CF
685 begint Suglyph("uni24F3";243);
686   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
687   numeric x[],y[];
688   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.nine);
689   i:=0; forever: exitif find_stroke(i)<1;
690     set_bosize(i,107); i:=i-1; endfor;
691   tsu_render;
692 endtsuglyph;
693

```

24

```

694 % 20
695 % BACKGROUND 25CF
696 begint Suglyph("uni24F4";244);
697   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.two);
698   numeric x[],y[];
699   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
700   i:=0; forever: exitif find_stroke(i)<1;
701     set_bosize(i,107); i:=i-1; endfor;
702   tsu_render;
703 endtsuglyph;
704
705
706

```

Doubly Circled Numerals

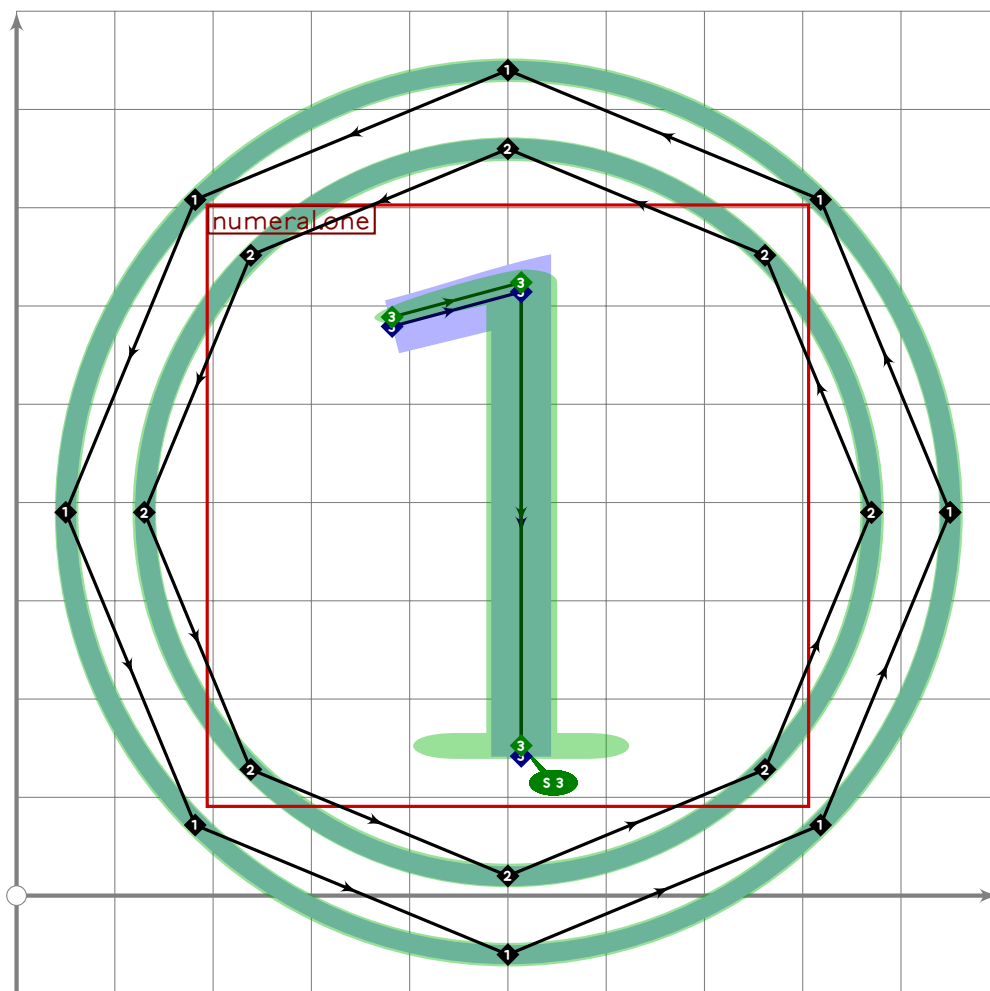
```

707 % DOUBLY CIRCLED NUMERALS
708

```

U+24F5
tsuku.uni24F5

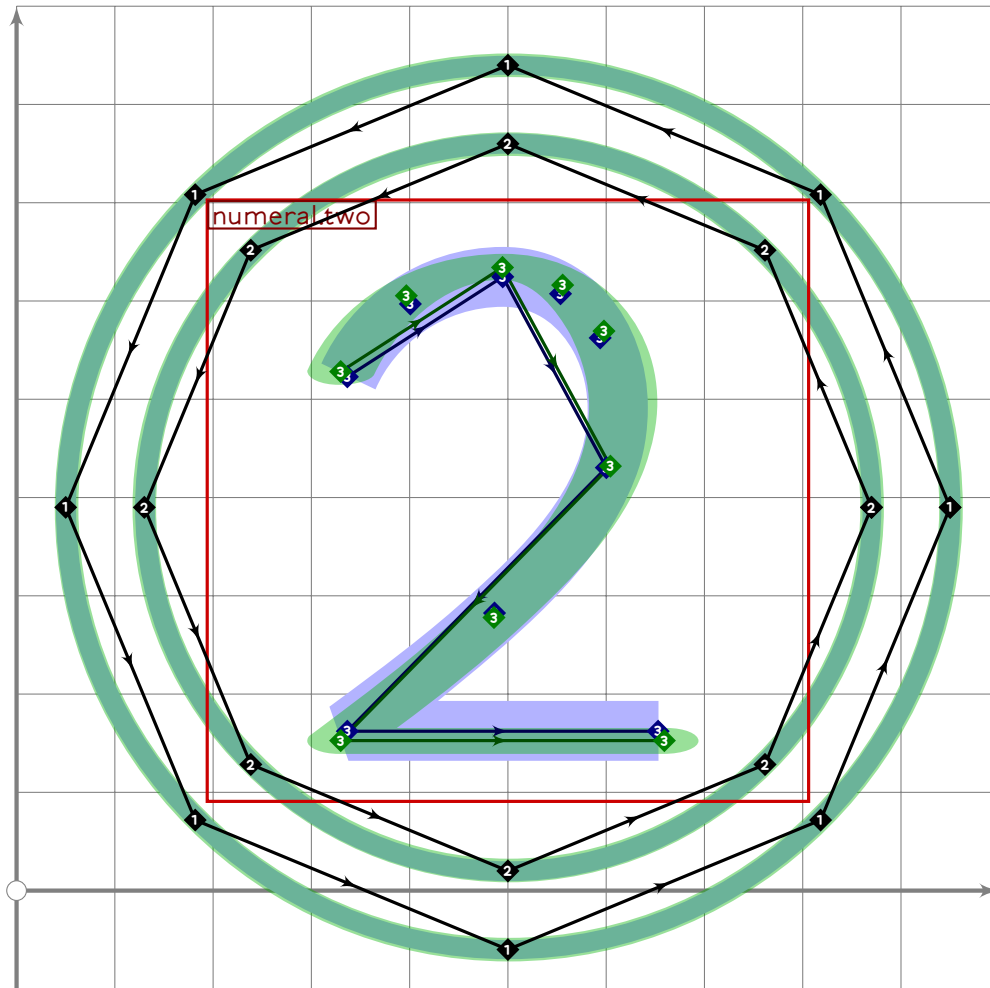
24



```

709 % 1
710 begintsuglyph("uni24F5";245);
711   circle.double;
712   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.one);
713   tsu_render;
714 endtsuglyph;
715

```



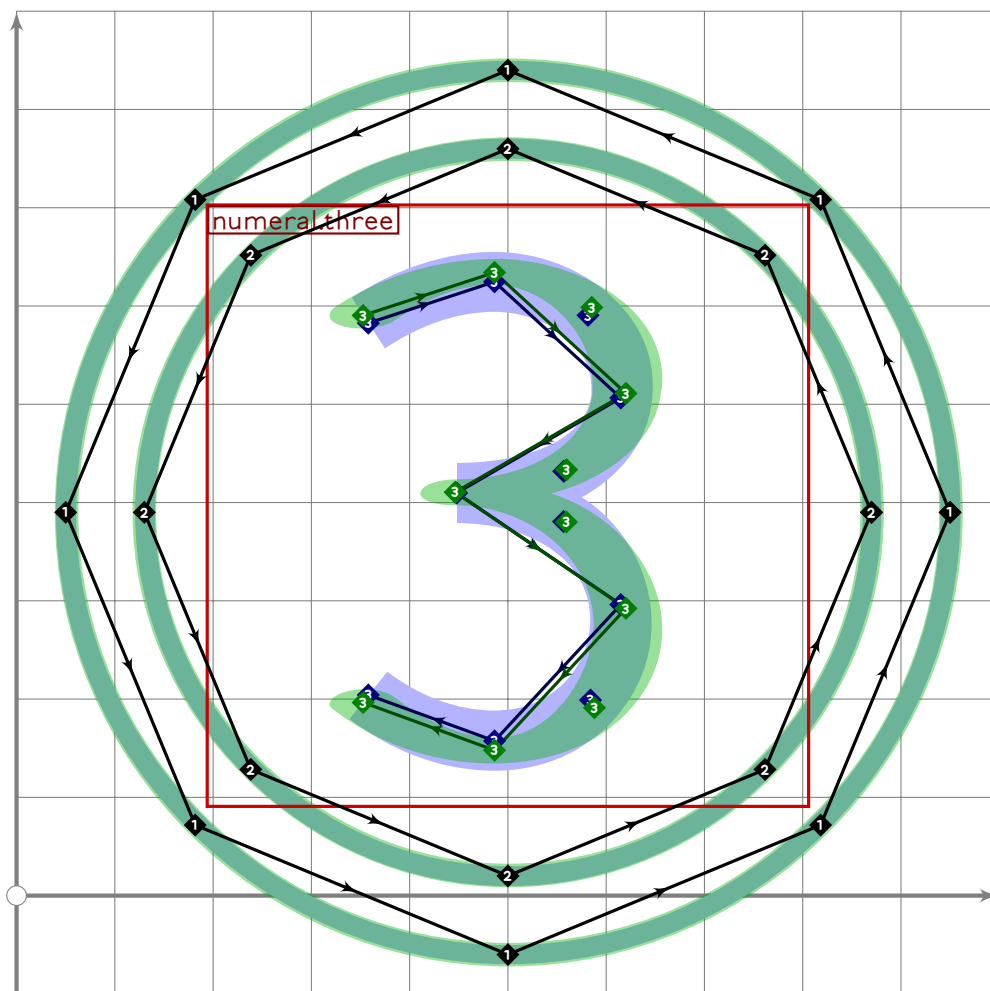
```

716 % 2
717 begintsuglyph("uni24F6";246);
718   circle.double;
719   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.two);
720   tsu_render;
721 endtsuglyph;
722

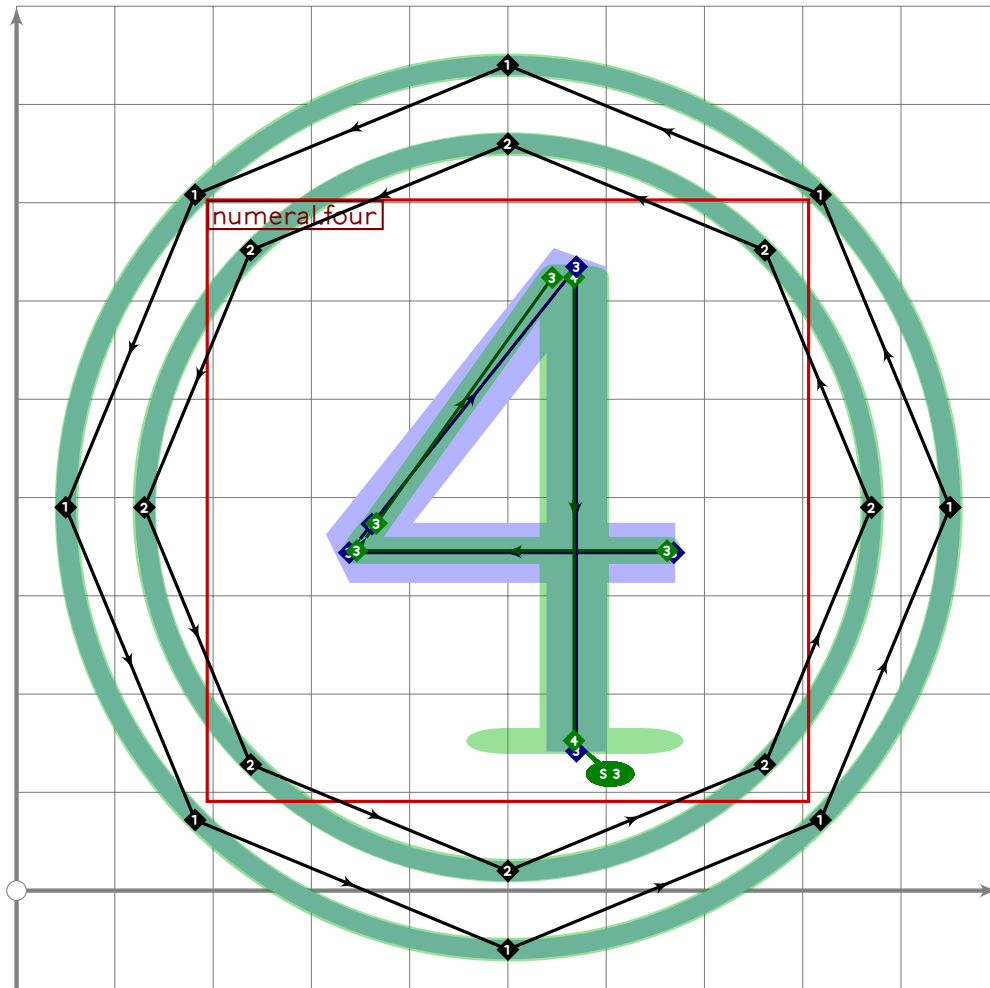
```

U+24F7
tsuku.uni24F7

24



```
723 % 3
724 begintsuglyph("uni24F7",247);
725   circle.double;
726   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.three);
727   tsu_render;
728 endtsuglyph;
729
```



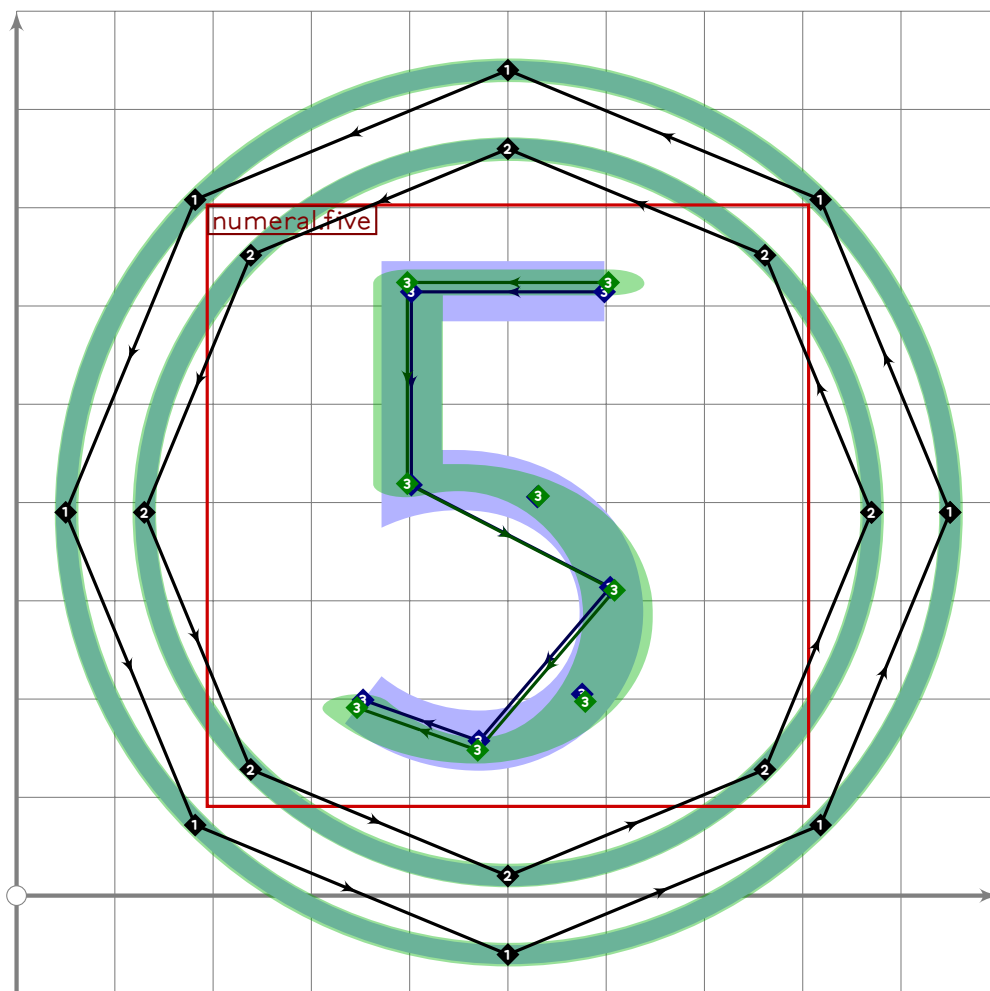
```

730 % 4
731 begintsuglyph("uni24F8",248);
732   circle.double;
733   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.four);
734   tsu_render;
735 endtsuglyph;
736

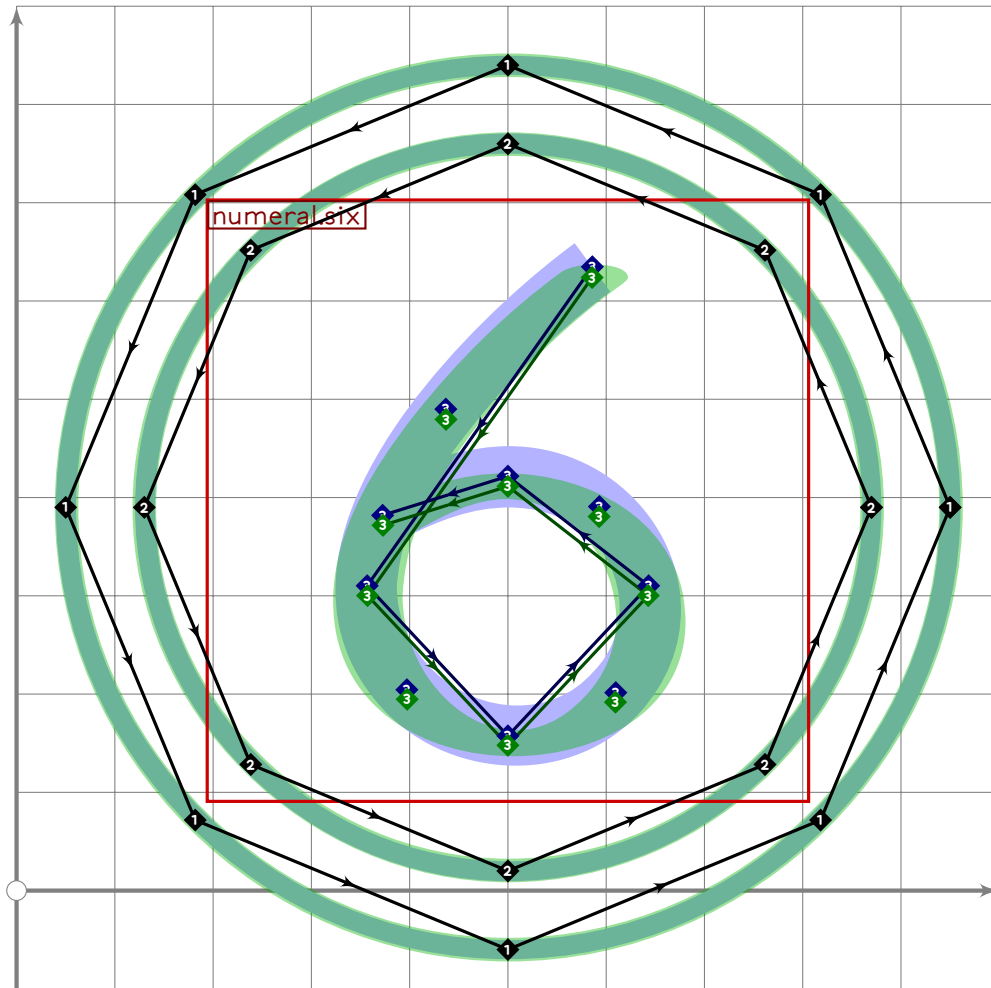
```

U+24F9
tsuku.uni24F9

24



```
737 % 5
738 begintsuglyph("uni24F9";249);
739   circle.double;
740   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.five);
741   tsu_render;
742 endtsuglyph;
743
```



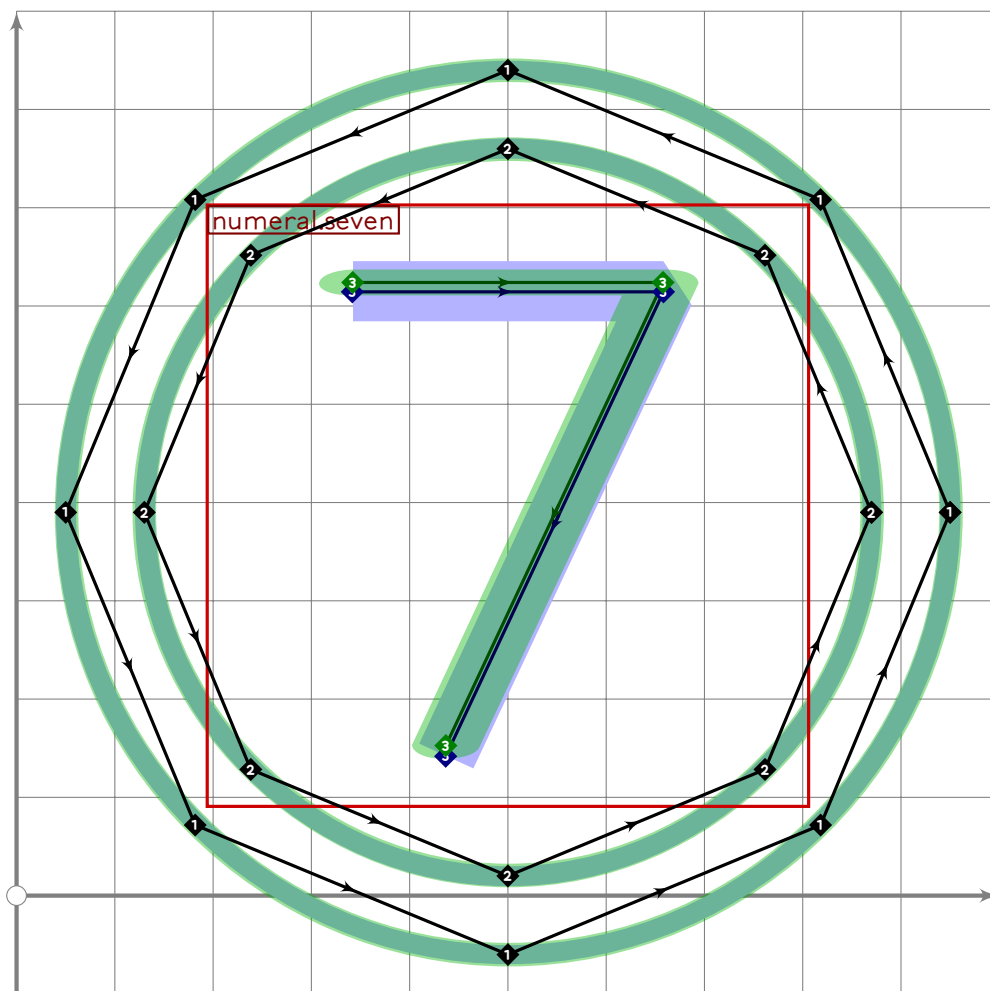
```

744 % 6
745 begintsuglyph("uni24FA";250);
746   circle.double;
747   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.six);
748   tsu_render;
749 endtsuglyph;
750

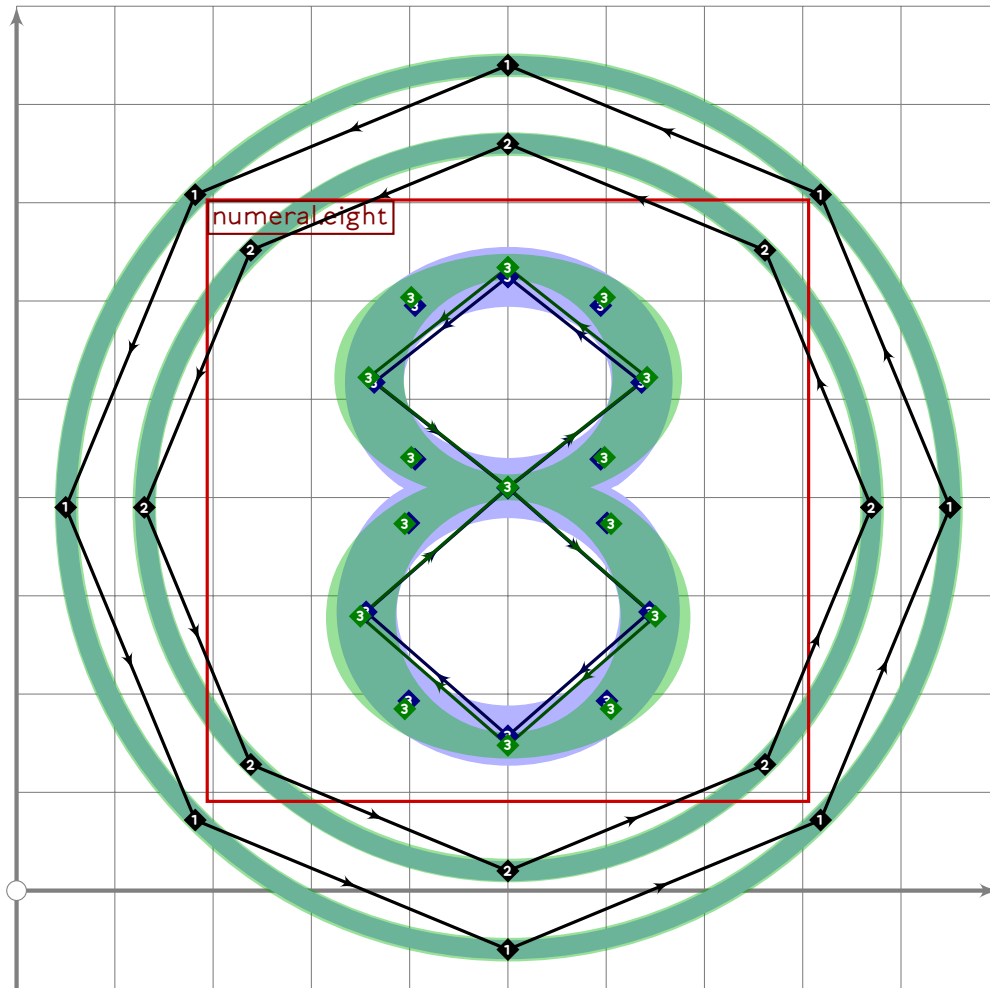
```

U+24FB
tsuku.uni24FB

24



```
751 % 7
752 begintsuglyph("uni24FB",251);
753   circle.double;
754   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.seven);
755   tsu_render;
756 endtsuglyph;
757
```

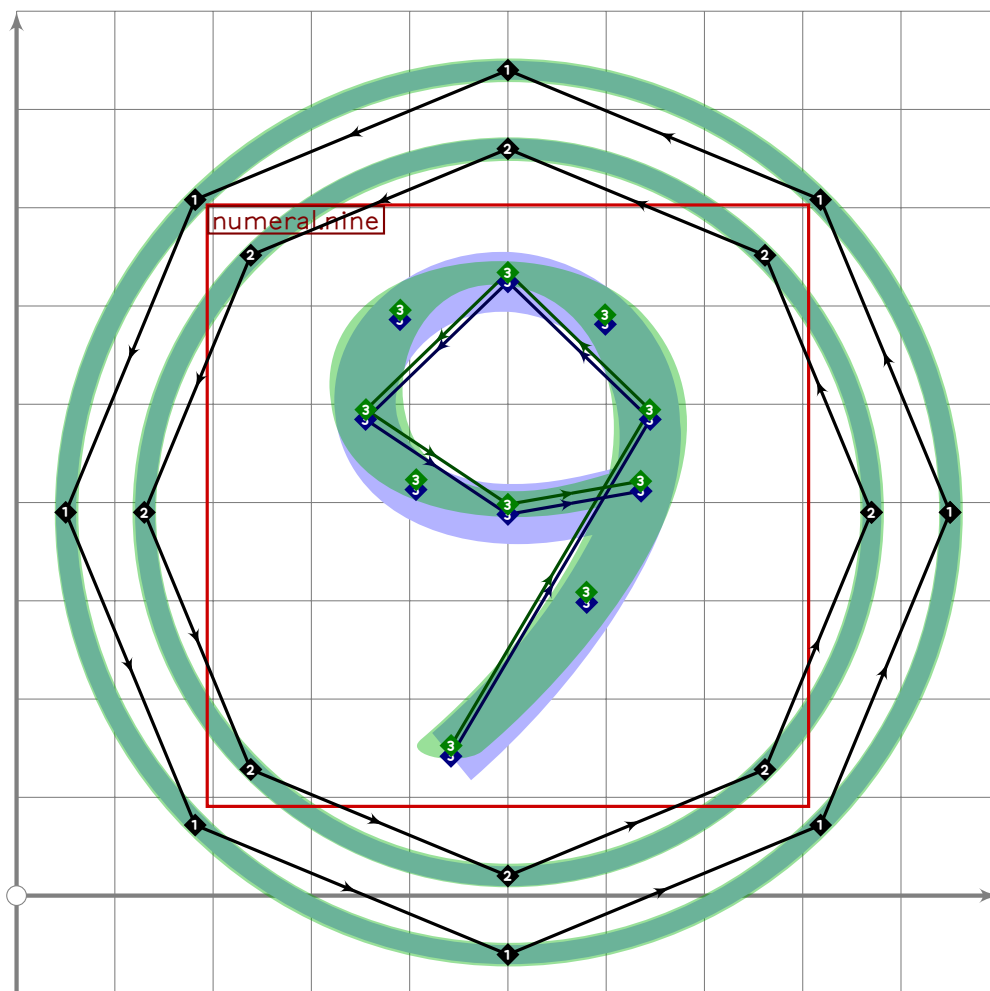
```

758 % 8
759 begintsuglyph("uni24FC";252);
760   circle.double;
761   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.eight);
762   tsu_render;
763 endtsuglyph;
764

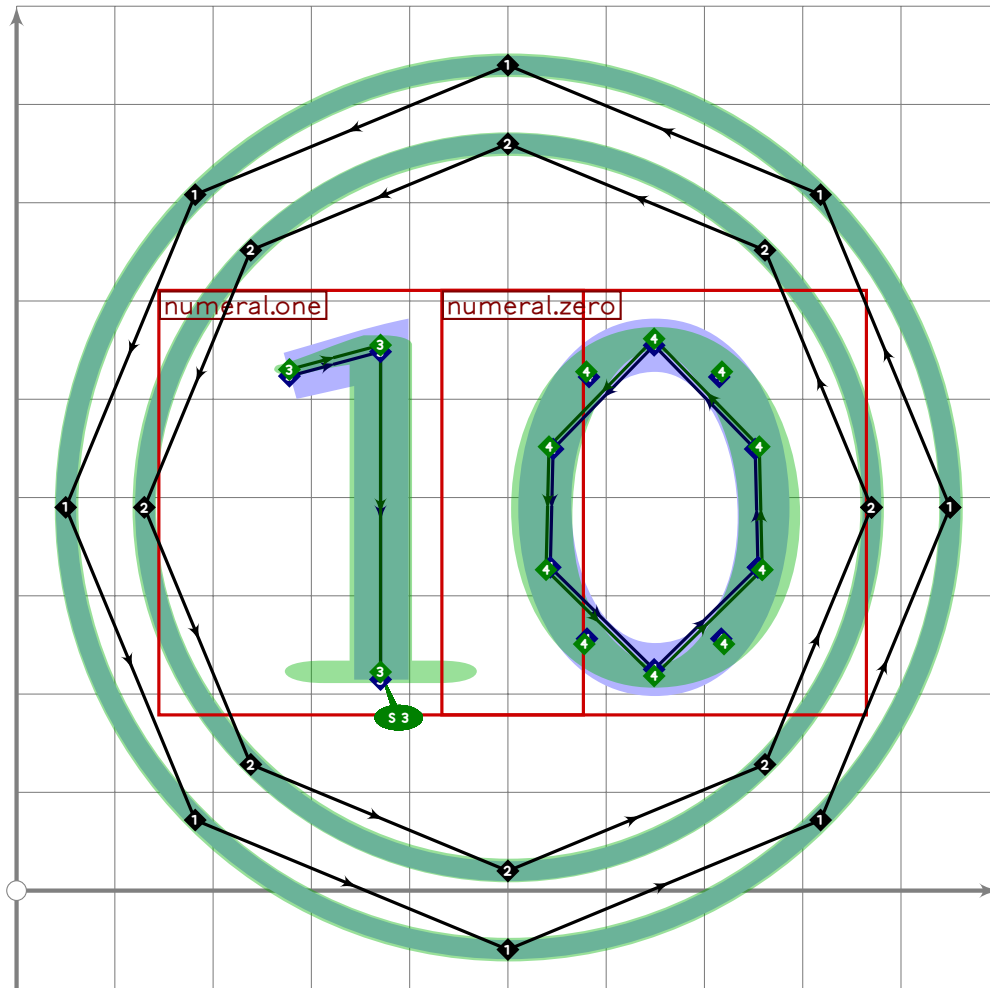
```

U+24FD
tsuku.uni24FD

24



```
765 % 9
766 begintsuglyph("uni24FD";253);
767   circle.double;
768   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.nine);
769   tsu_render;
770 endtsuglyph;
771
```



```

772 % 10
773 begintuglyph("uni24FE",254);
774   circle.double;
775   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
776   numeric x[],y[];
777   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
778   tsu_render;
779 endtuglyph;
780
781
782

```

One More Inverted Circled Numeral

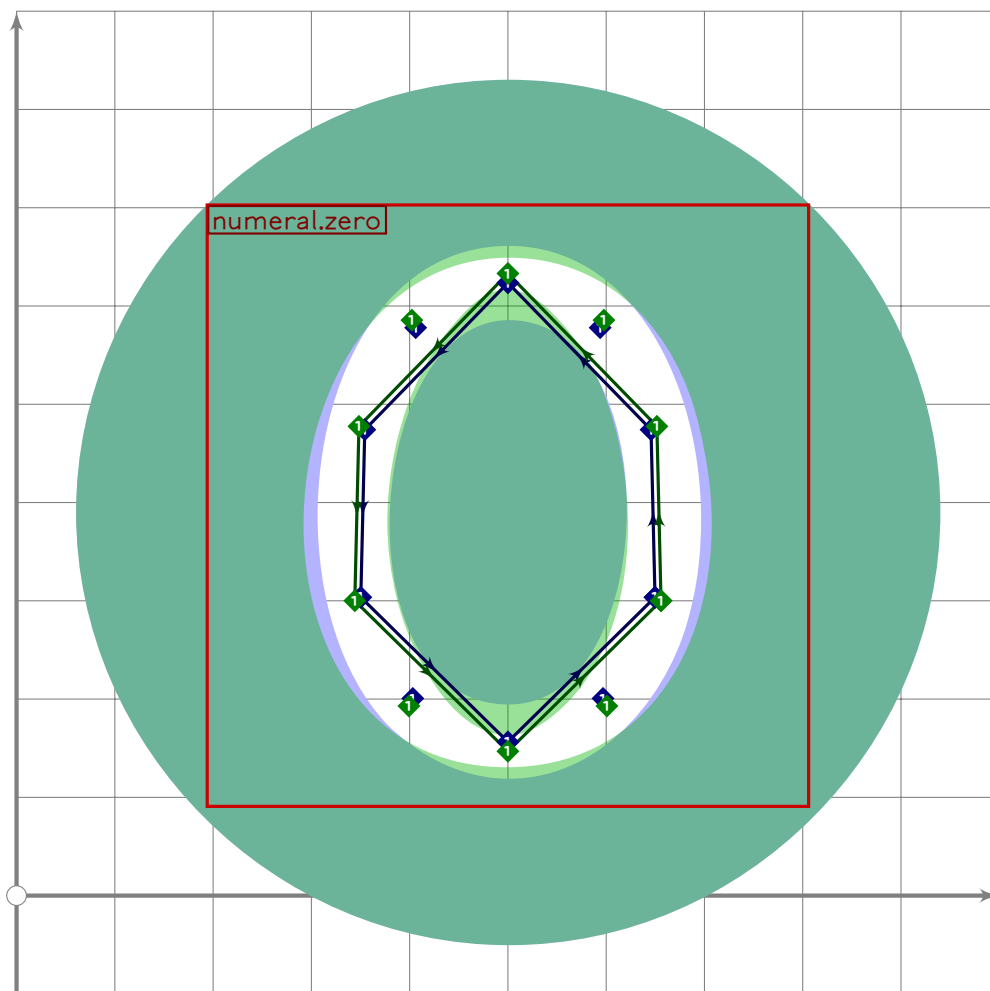
```

783 % ONE MORE INVERTED CIRCLED NUMERAL
784

```

U+24FF
tsuku.uni24FF

24



```
785 % 9
786 % BACKGROUND 25CF
787 begint Suglyph("uni24FF";255);
788   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.zero);
789   i:=0; forever: exitif find_stroke(i)<1;
790     set_bosize(i,107); i:=i-1; endfor;
791   tsu_render;
792 endtsuglyph;
793
794
795
796 endfont;
797
798
```

tsuku-25.mp

```
1 %
2 % Unicode page 25 (Geometric Shapes) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 _____
32
33 beginfont
34
35 % AUTODEPS
36
37 do_late_includes;
38
39 _____
40
```

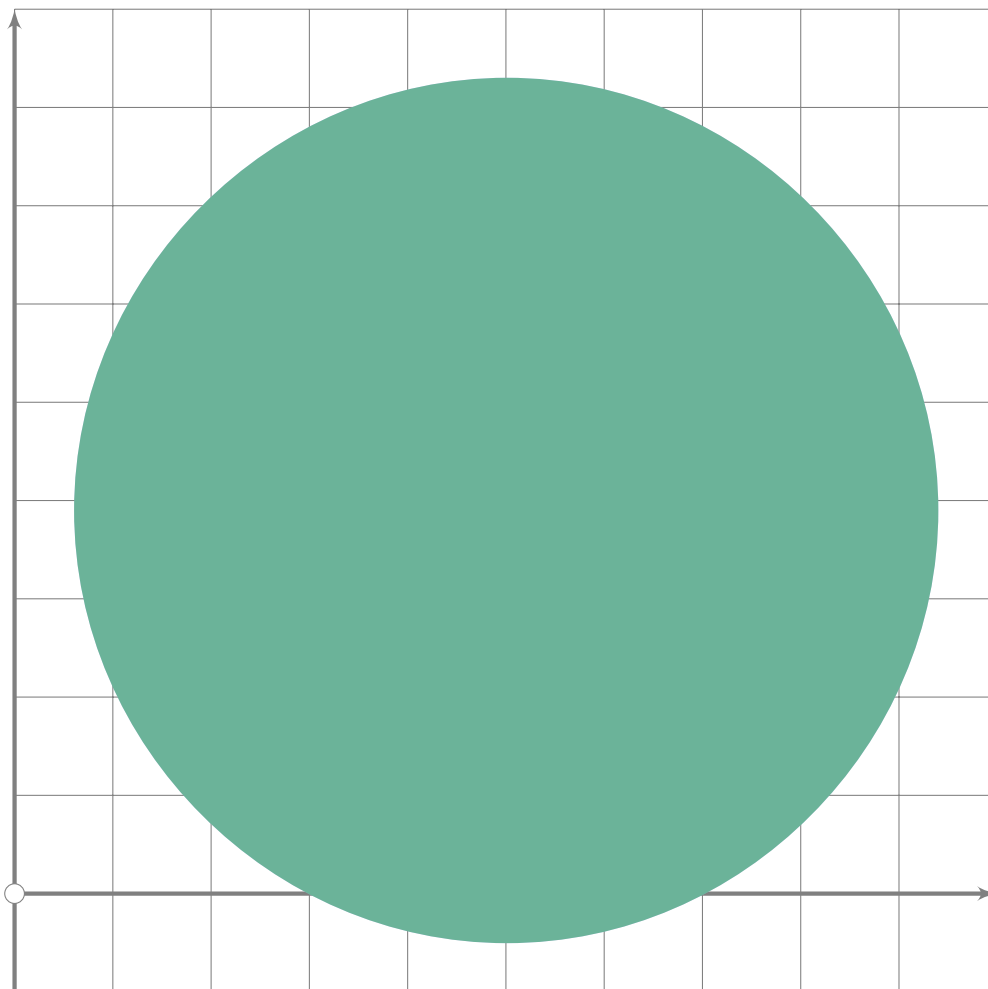
25

Geometric Shapes

```
41 % GEOMETRIC SHAPES
42
```

U+25CF
tsuku.uni25CF

25



43 % black circle - used as background for inverted dingbats

44 begintsuglyph("uni25CF";207);

45 Fill fullcircle scaled 880 shifted centre_pt;

46 endtsuglyph;

47

48 _____

49

50 endfont;

51

52 _____

tsuku-26.mp

```
1 %
2 % Unicode page 26 (Misc. Symbols) for Tsukurimashou
3 % Copyright (C) 2011, 2012, 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input iching.mp;
39
40 do_late_includes;
41
42 

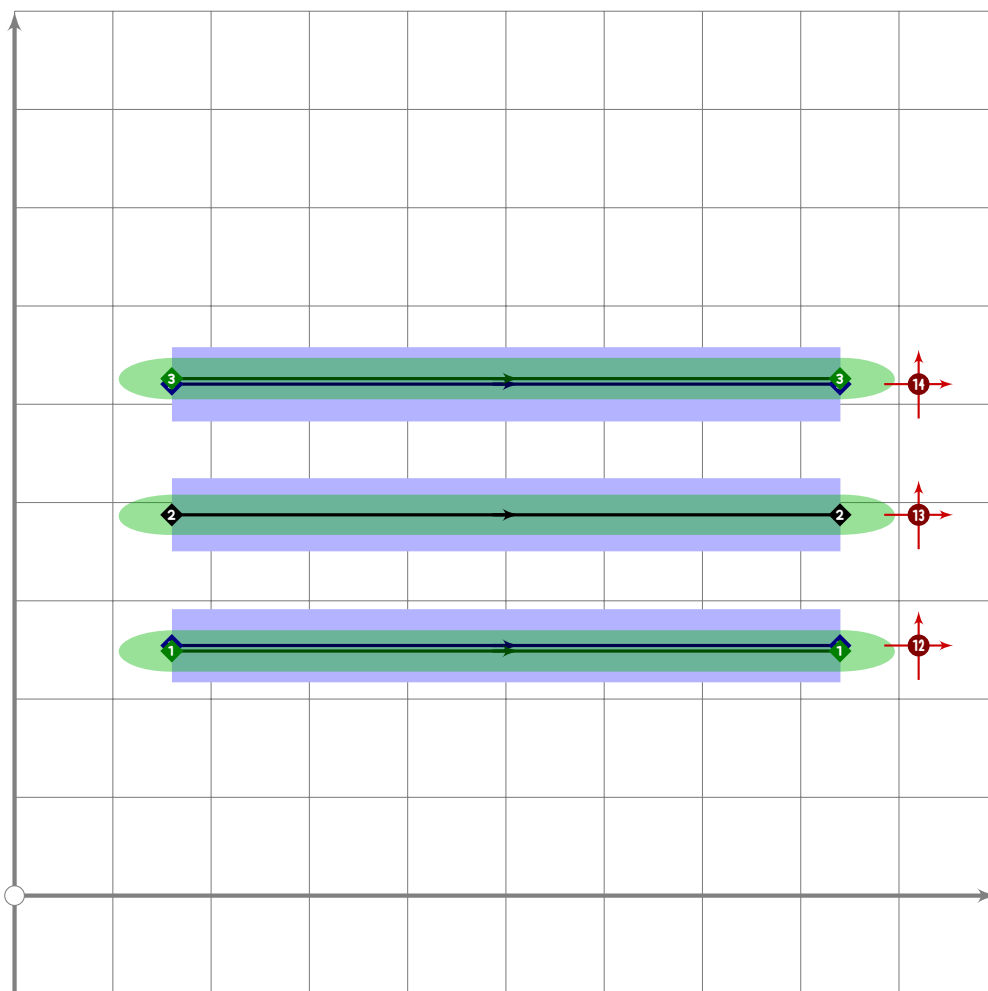
---


43
```

I Ching

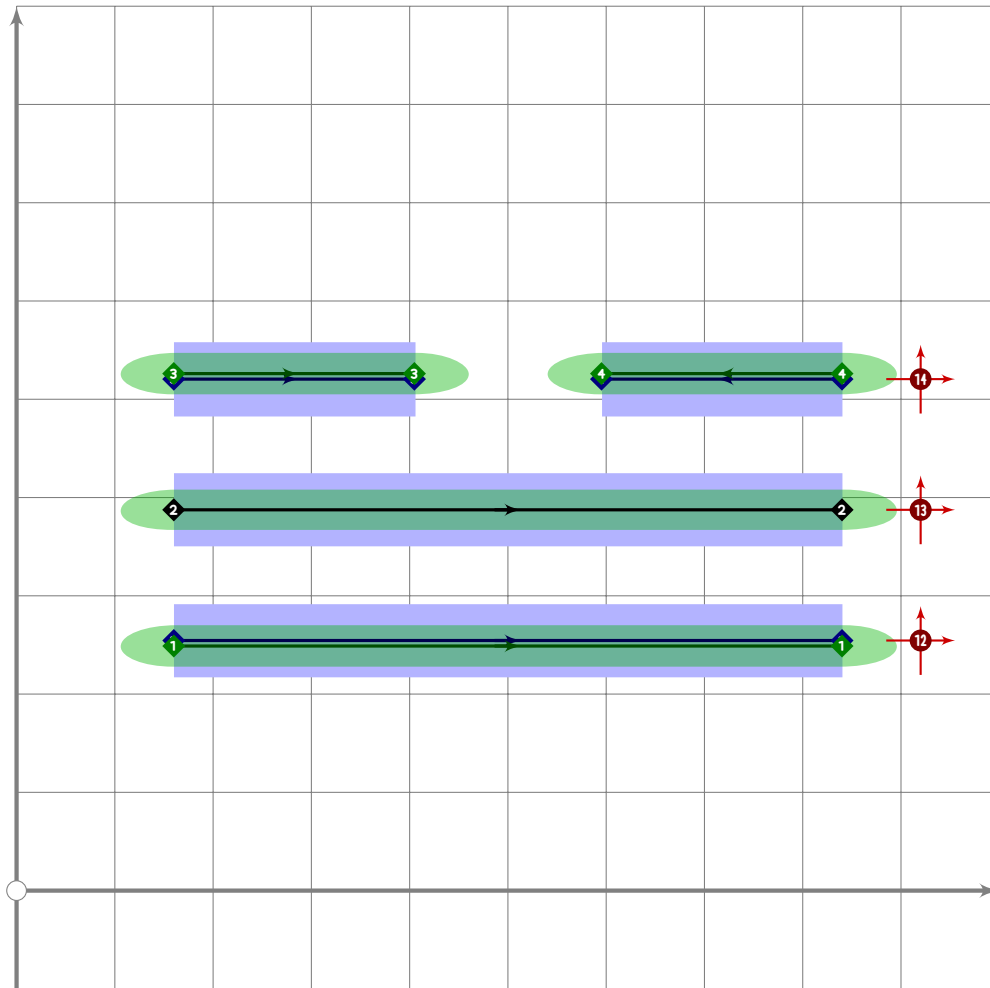
44 % I CHING

U+2630
tsuku.ichingtri1



26

```
45  
46 begintsuglyph("ichingtri1",48);  
47   iching.line(1,3,1);  
48   iching.line(2,3,1);  
49   iching.line(3,3,1);  
50   tsu_render;  
51 endtsuglyph;
```

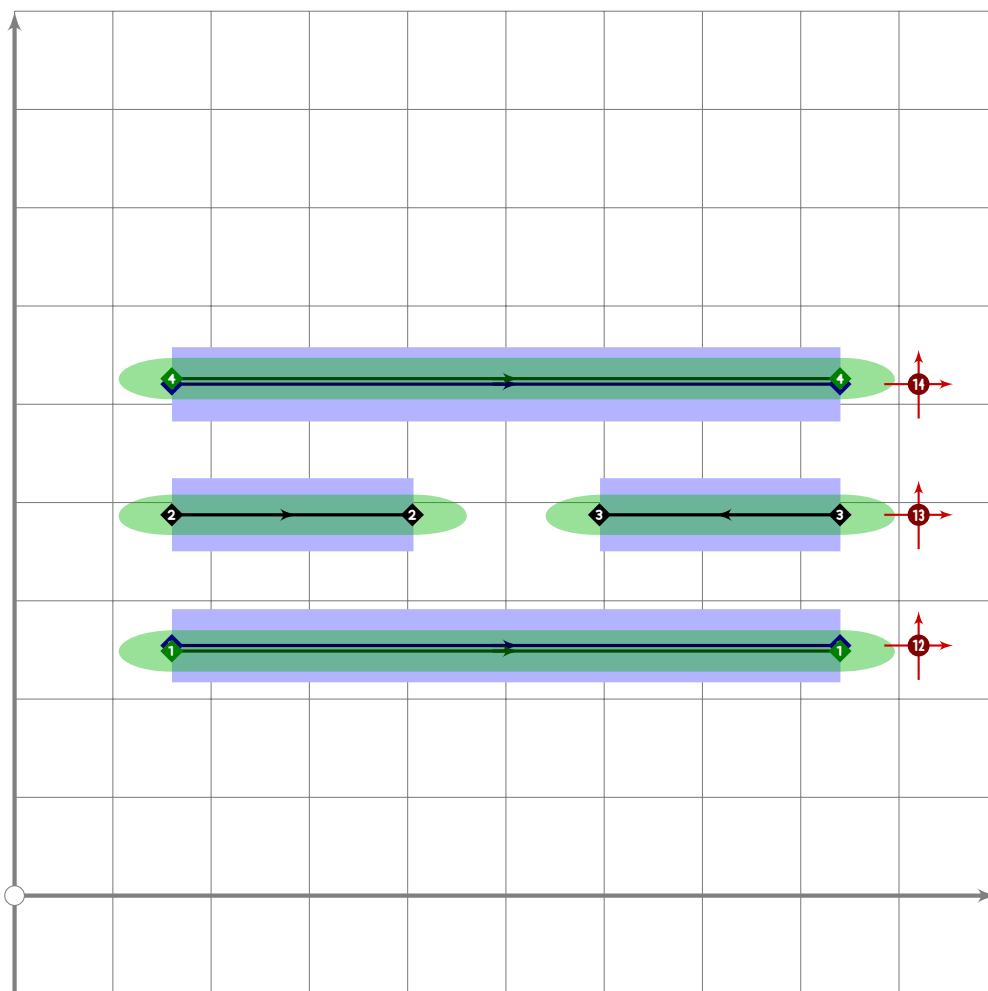



```

52
53 begintsuglyph("ichingtri2",49);
54   iching.line(1,3,1);
55   iching.line(2,3,1);
56   iching.line(3,3,0);
57   tsu__render;
58 endtsuglyph;

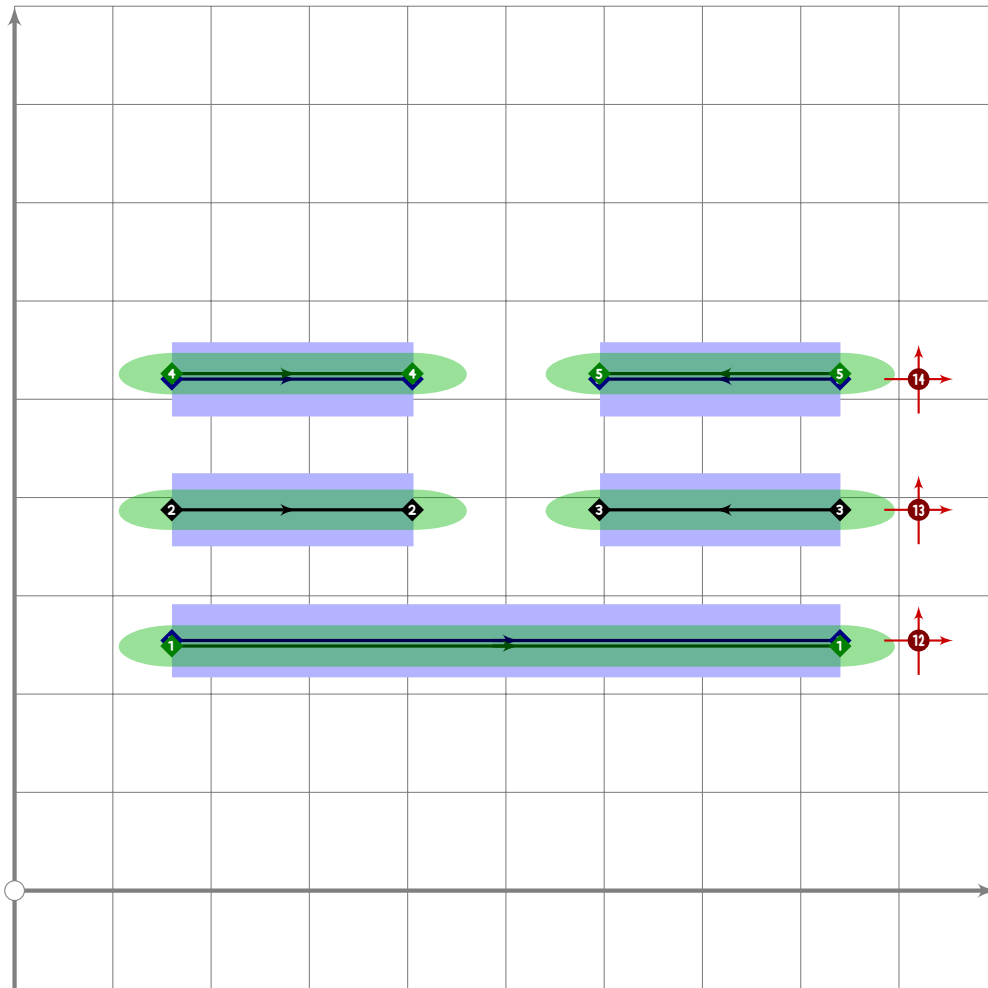
```

U+2632
tsuku.ichingtri3



26

```
59  
60 beginsuglyph("ichingtri3",50);  
61   iching.line(1,3,1);  
62   iching.line(2,3,0);  
63   iching.line(3,3,1);  
64   tsu_render;  
65 endsuglyph;
```

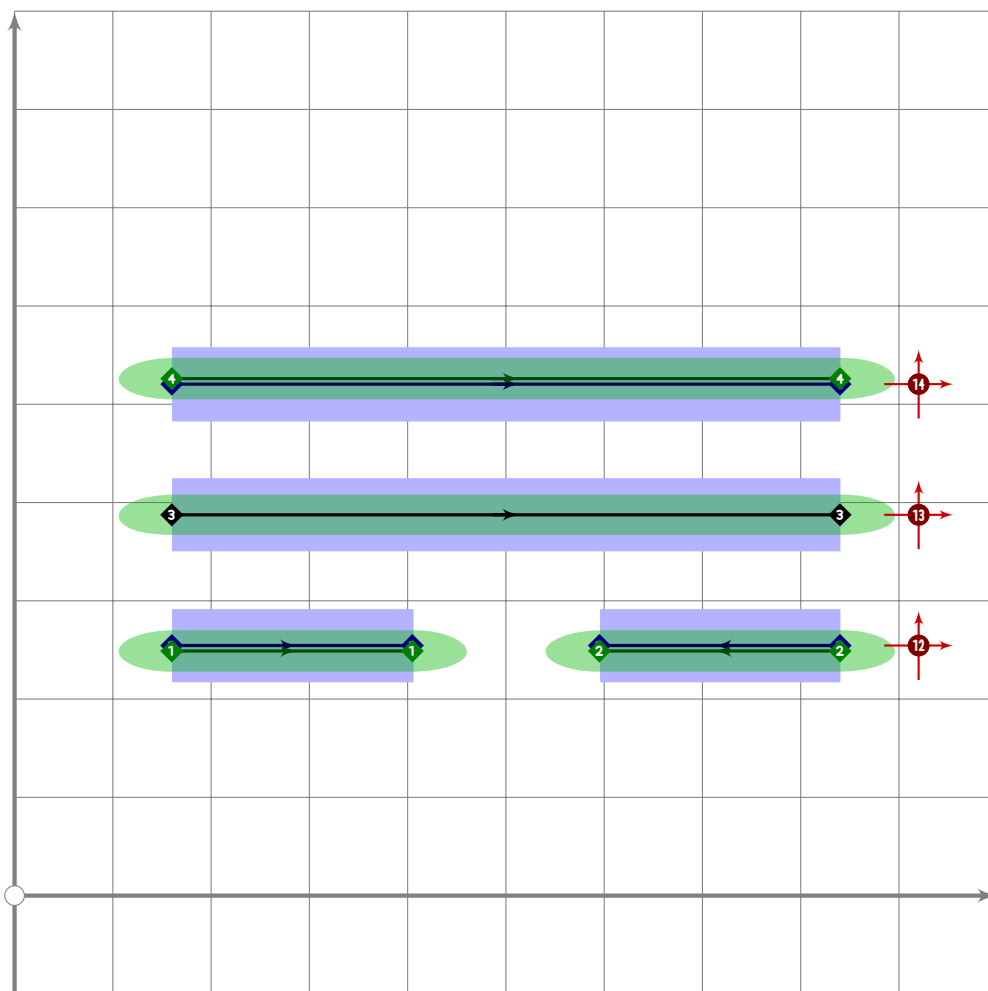


```

66
67 begint Suglyph("ichingtri4";51);
68   iching.line(1,3,1);
69   iching.line(2,3,0);
70   iching.line(3,3,0);
71   tsu__render;
72 endtsuglyph;

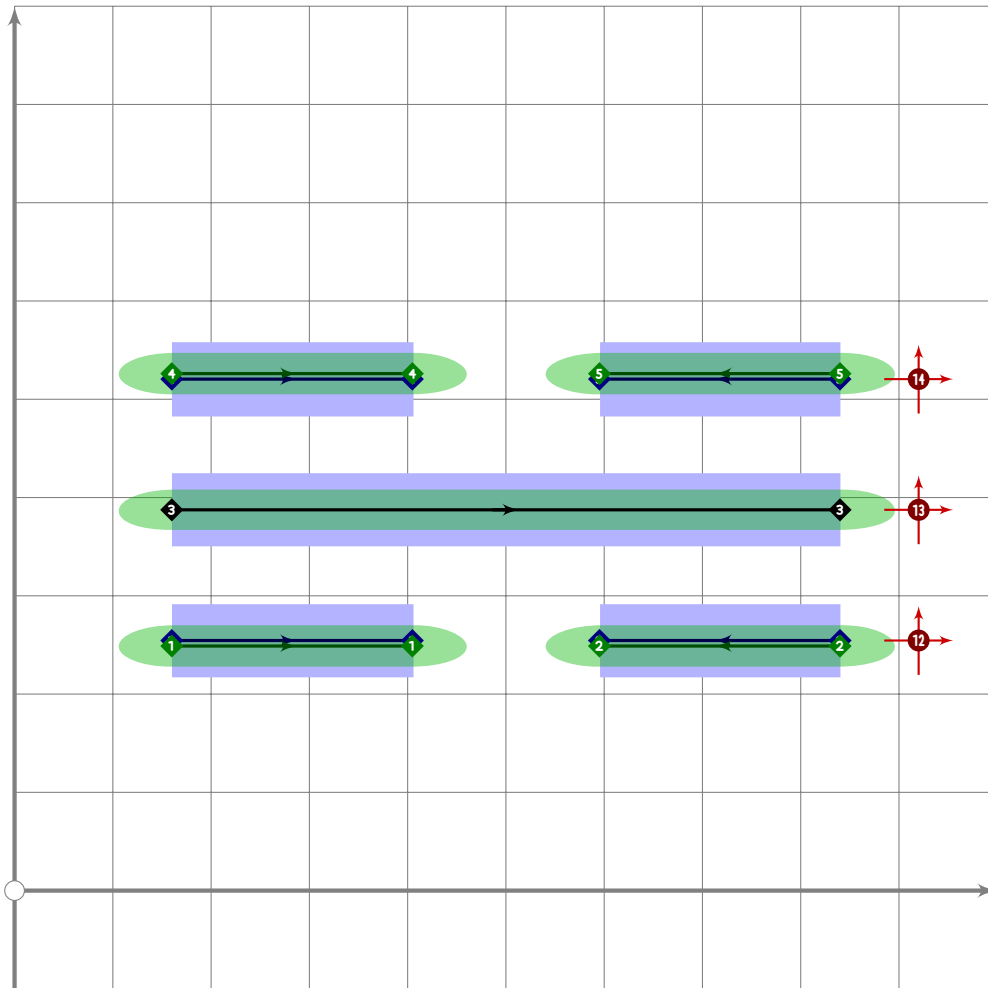
```

U+2634
tsuku.ichingtri5



26

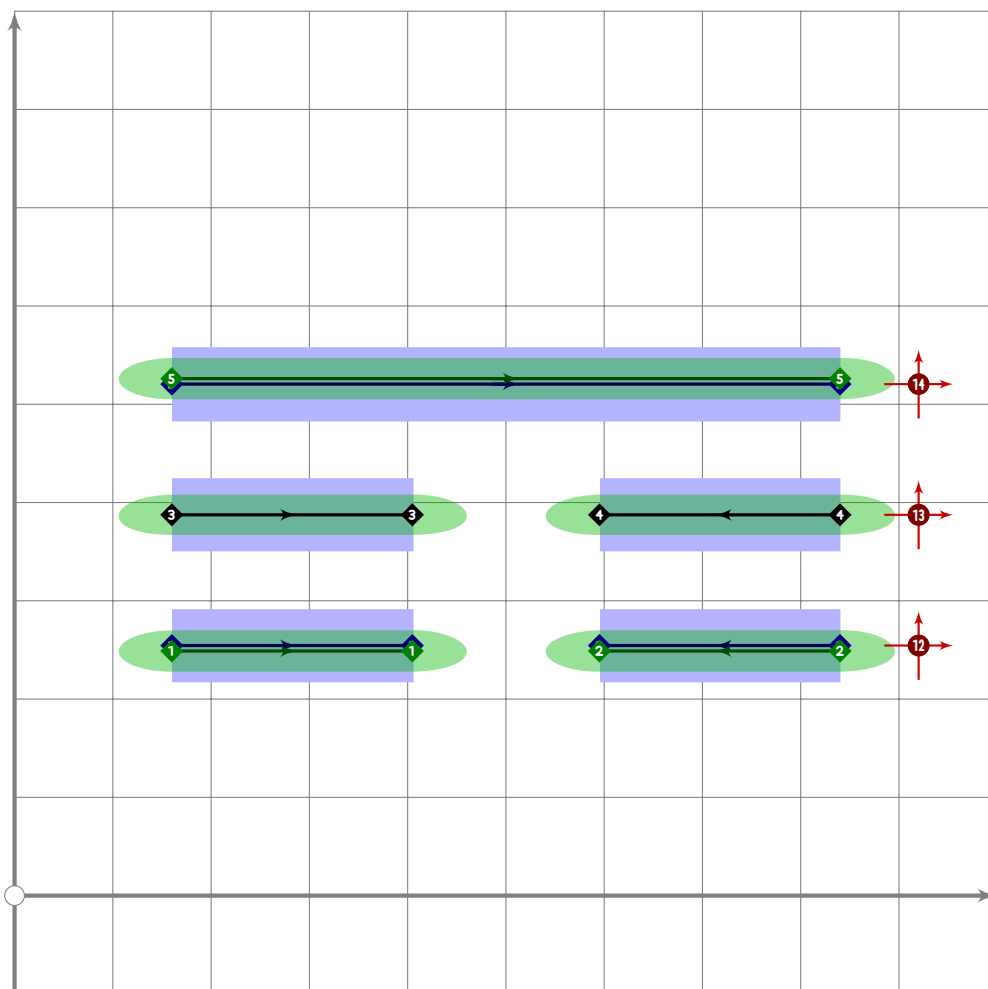
```
73  
74 begintsuglyph("ichingtri5";52);  
75   iching.line(1,3,0);  
76   iching.line(2,3,1);  
77   iching.line(3,3,1);  
78   tsu__render;  
79 endtsuglyph;
```



```

80
81 begintsuglyph("ichingtri6";53);
82   iching.line(1,3,0);
83   iching.line(2,3,1);
84   iching.line(3,3,0);
85   tsu__render;
86 endtsuglyph;

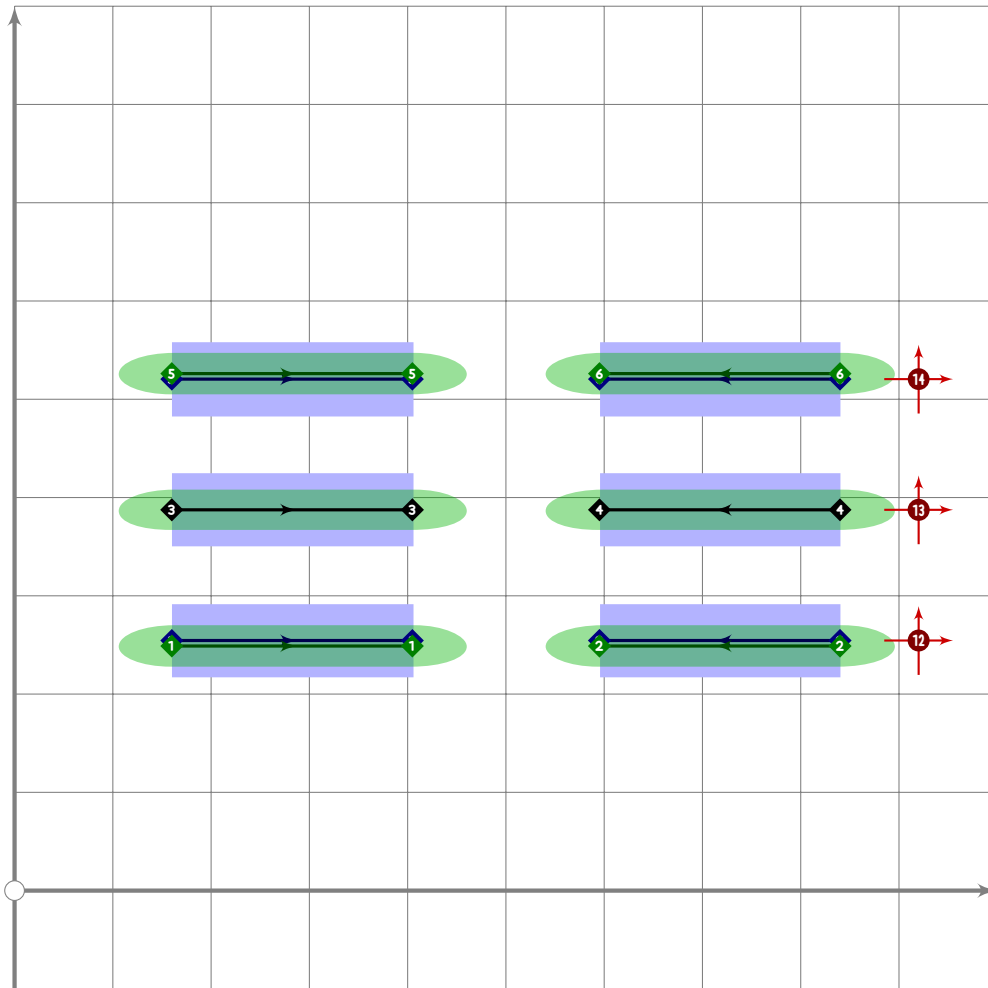
```



```

87
88 begintsuglyph("ichingtri7",54);
89   iching.line(1,3,0);
90   iching.line(2,3,0);
91   iching.line(3,3,1);
92   tsu__render;
93 endtsuglyph;

```

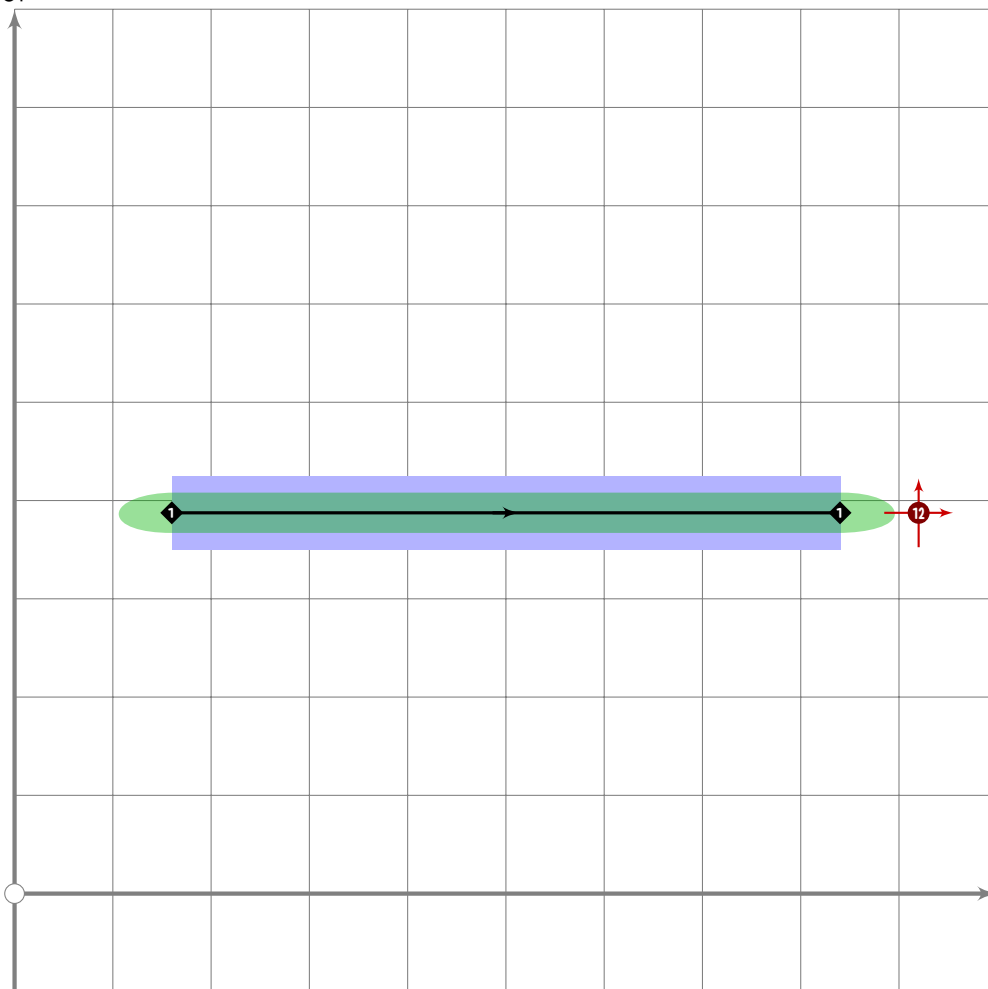


```

94
95 begint Suglyph("ichingtri8",55);
96   iching.line(1,3,0);
97   iching.line(2,3,0);
98   iching.line(3,3,0);
99   tsu__render;
100 endtsuglyph;

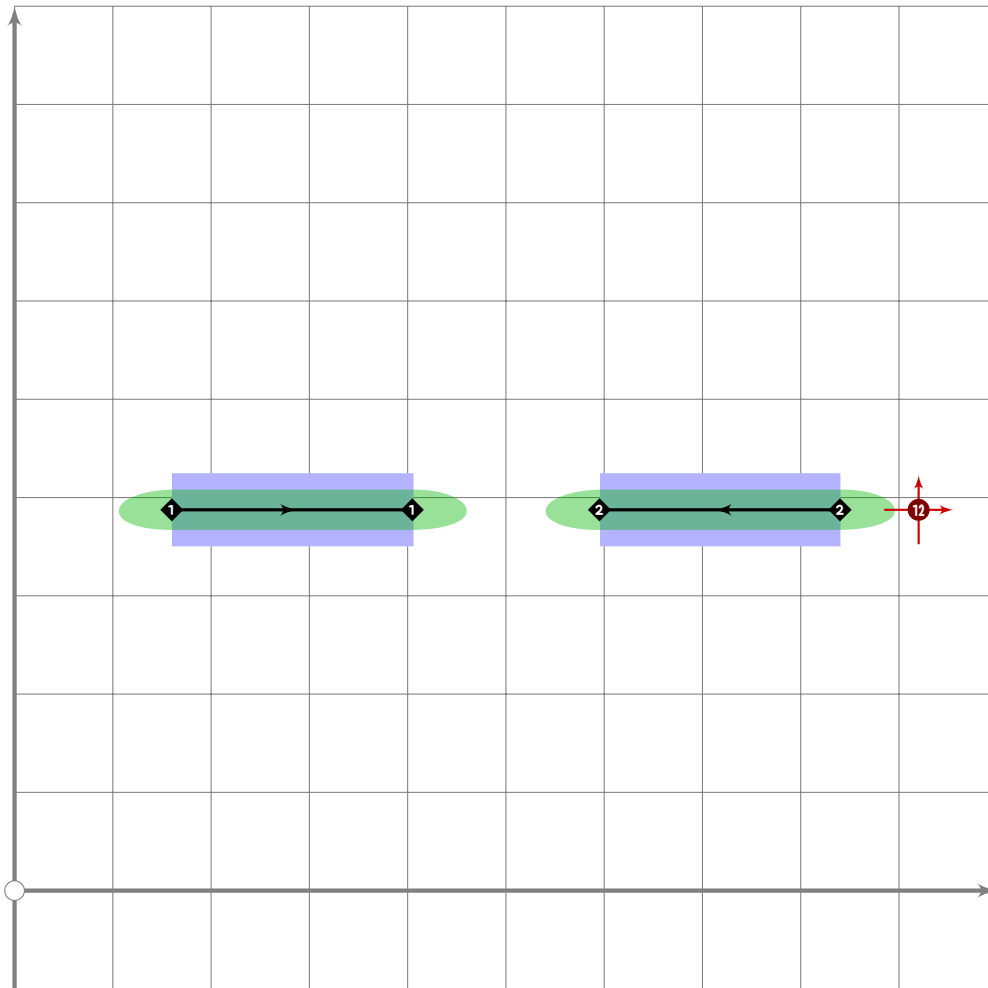
```

U+268A
tsuku.ichingmono1



26

```
101
102 beginsuglyph("ichingmono1",138);
103   iching.line(1,1,1);
104   tsu_render;
105 endtsuglyph;
```

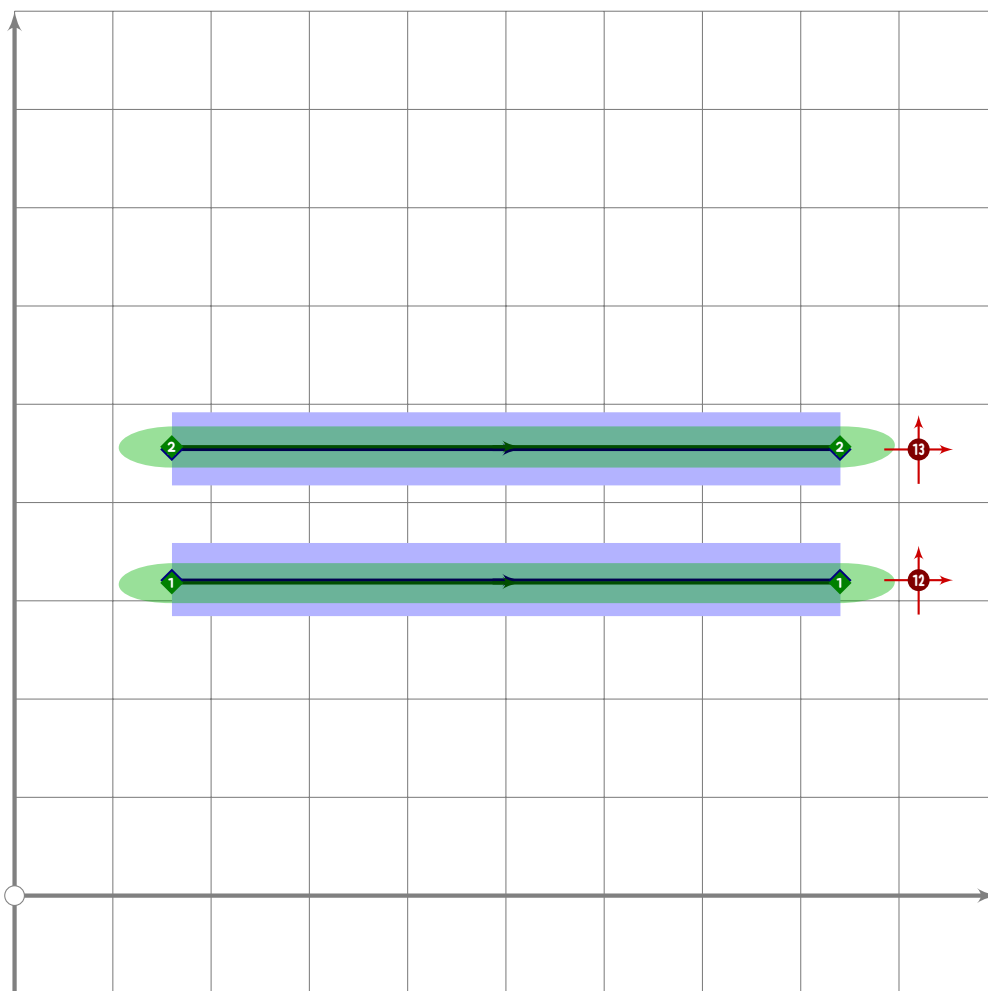



```

106
107 beginsuglyph("ichingmono2",139);
108   iching.line(1,1,0);
109   tsu_render;
110 endsuglyph;

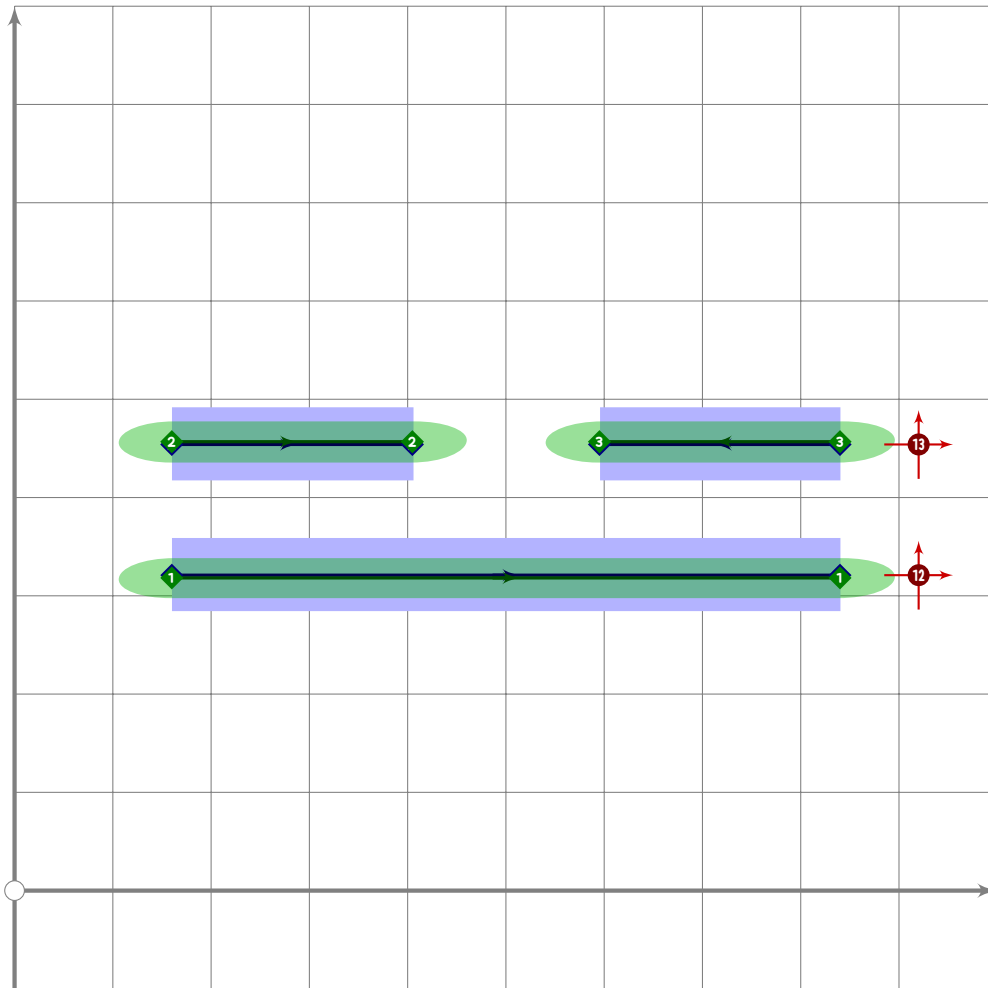
```

U+268C
tsuku.ichingdi1



26

```
111
112 begintsuglyph("ichingdi1",140);
113   iching.line(1,2,1);
114   iching.line(2,2,1);
115   tsu_render;
116 endtsuglyph;
```

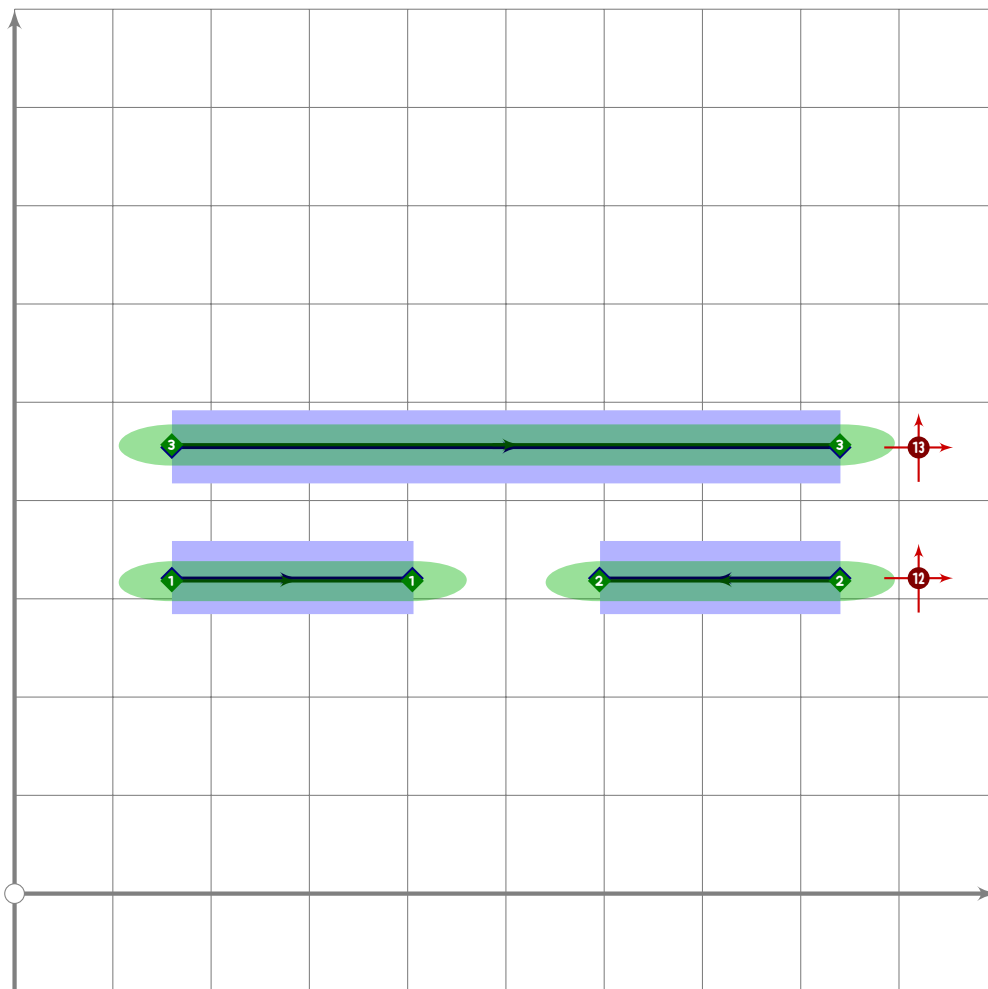


```

117
118 begint Suglyph("ichingdi2",141);
119   iching.line(1,2,1);
120   iching.line(2,2,0);
121   tsu_render;
122 endtsuglyph;

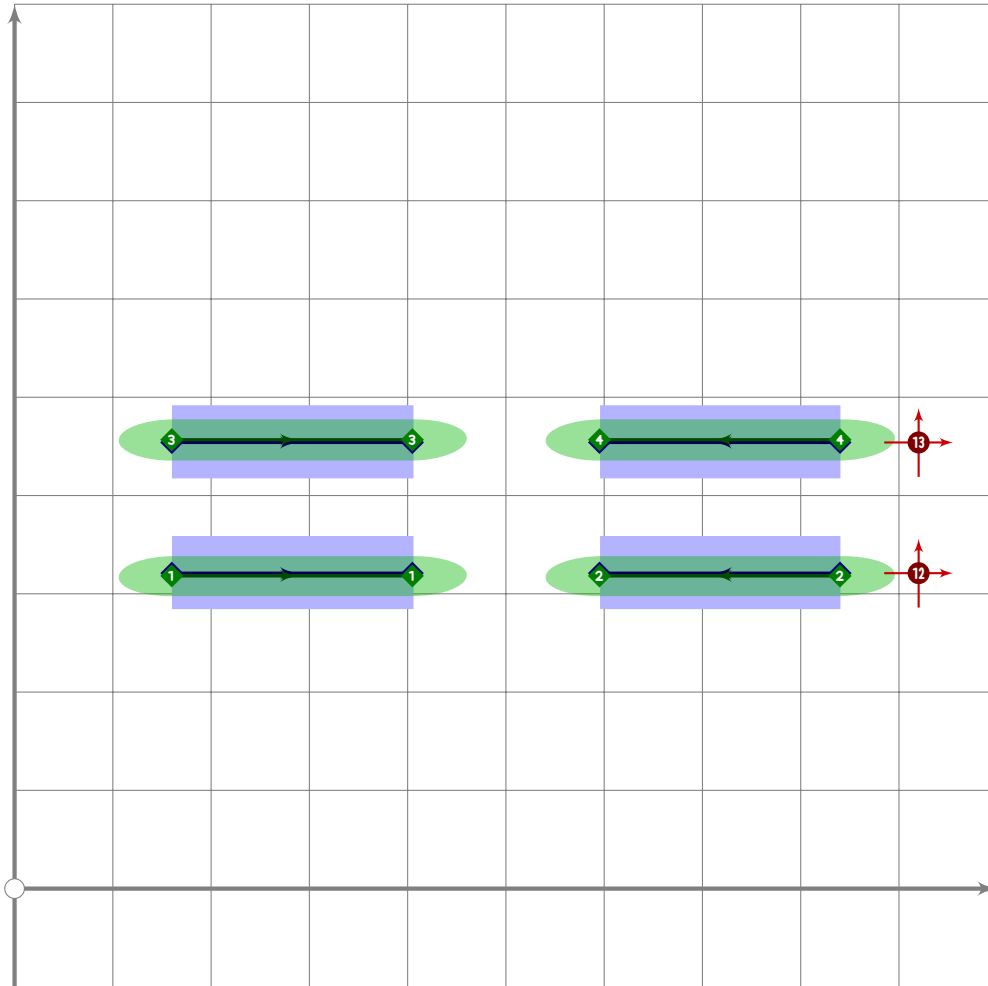
```

U+268E
tsuku.ichingdi3



26

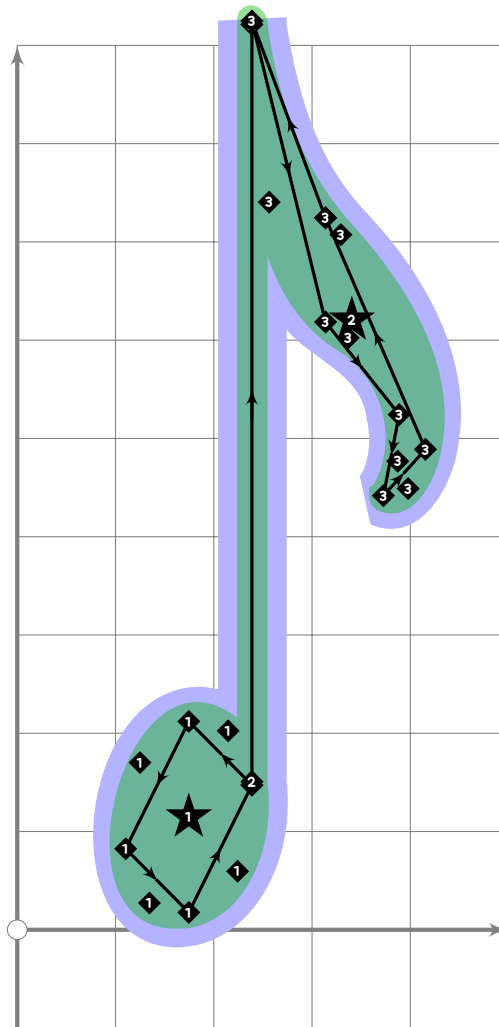
```
123
124 begintsuglyph("ichingdi3",142);
125   iching.line(1,2,0);
126   iching.line(2,2,1);
127   tsu_render;
128 endtsuglyph;
```



```

129
130 begintzuglyph("ichingdi4",143);
131   iching.line(1,2,0);
132   iching.line(2,2,0);
133   tsu_render;
134 endtsuglyph;
135
136
137
138 % musical eighth note, required for MES-1
139 tsu_rescale_half;

```



```

140 begint Suglyph("musicalnote",106);
141   push_stroke((500,150)..(380,205)..(260,95)..(380,40)..cycle,
142     (1,6,1,6)-(1,4,1,4)-(1,4,1,4)-(1,4,1,4)-cycle);
143   set_bobrush(0,bralternate);
144   push_stroke((500,153)-(500,807),(1,6,1,6)-(1,6,1,6));
145   set_bobrush(0,bralternate);
146   push_stroke((640,640)..{curl 1}(500,810){down}(640,550)..(780,470)..
147     {curl 1}(750,400){curl 1}..(830,440)..cycle,
148     (1,3,1,3)-(1,6,1,6)-(1,3,1,3)-(1,3,1,3)-(1,1)-(1,3,1,3));
149   set_botip(0,1,0);
150   set_botip(0,4,0);
151   set_bobrush(0,bralternate);
152   if tsu_brush_max.brpunct>=0.3:
153     push_lcblob(get_stroke(-2));
154     push_lcblob(get_stroke(0));
155   fi;
156   tsu_render;
157 endtsuglyph;
158
159

```

160

161 endfont;

162

163

tsuku-27.mp

```
1 %
2 % Unicode page 27 (Zapfian Dingbats) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---

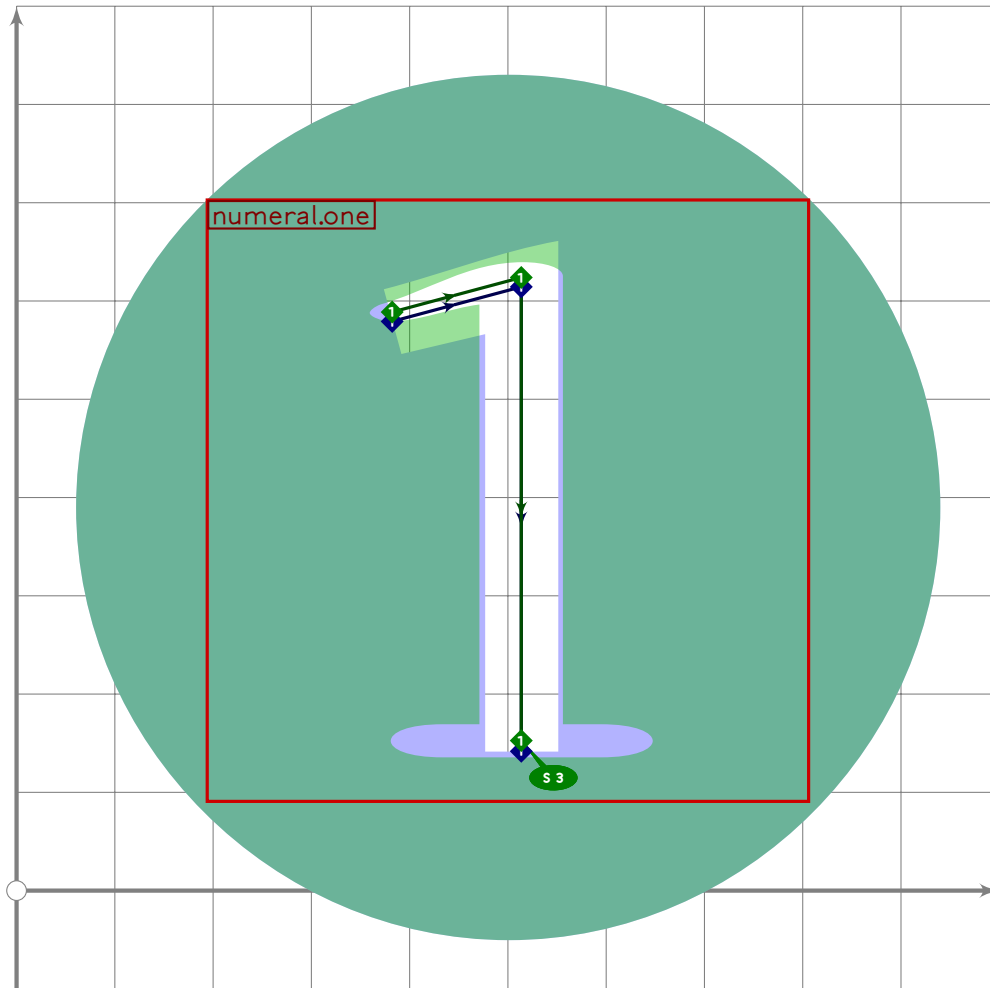

32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input enclosed.mp;
39 input numerals.mp;
40
41 do_late_includes;
42
43 

---


44
```

Inverted Circled Numerals

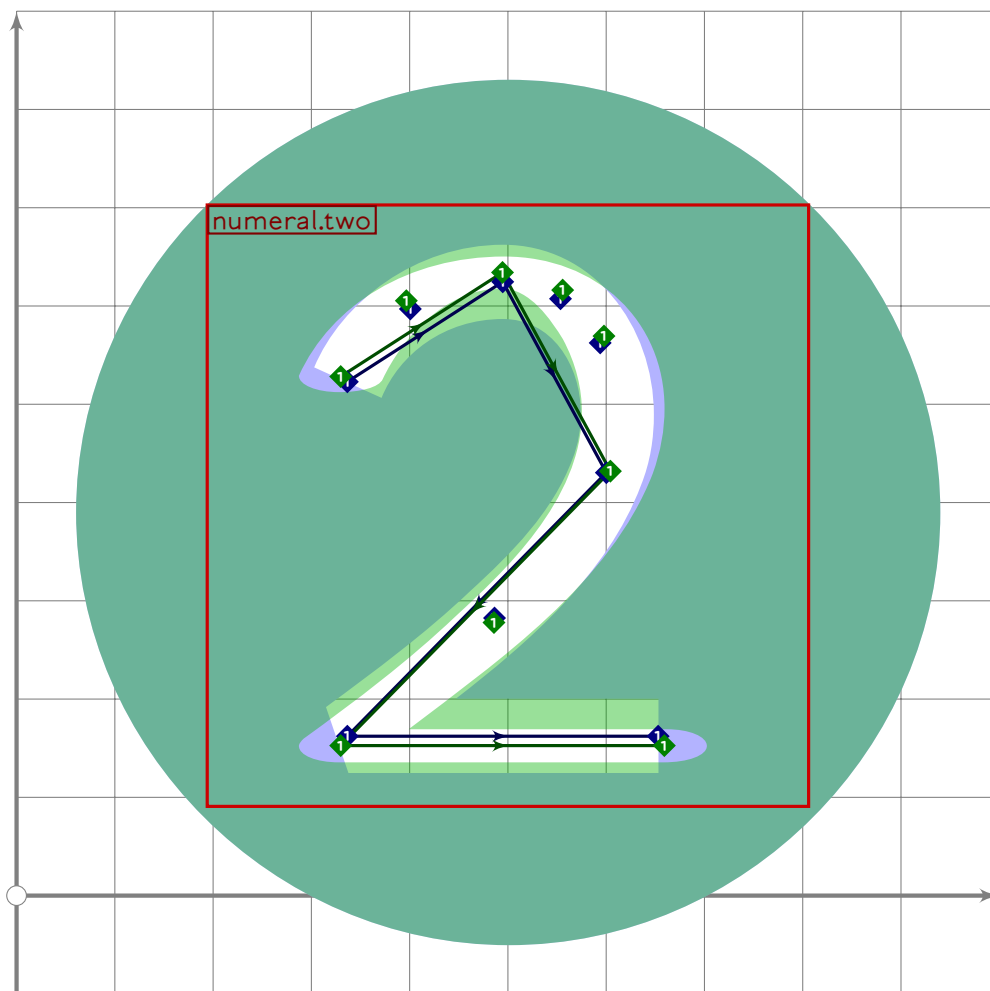
```
45 % INVERTED CIRCLED NUMERALS
46
```

```

47 % 1
48 % BACKGROUND 25CF
49 begint Suglyph('uni2776',118);
50 tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.one);
51 i:=0; forever: exitif find_stroke(i)<1;
52   set_bosize(i,107); i:=i-1; endfor;
53 tsu_render;
54 endtsuglyph;
55

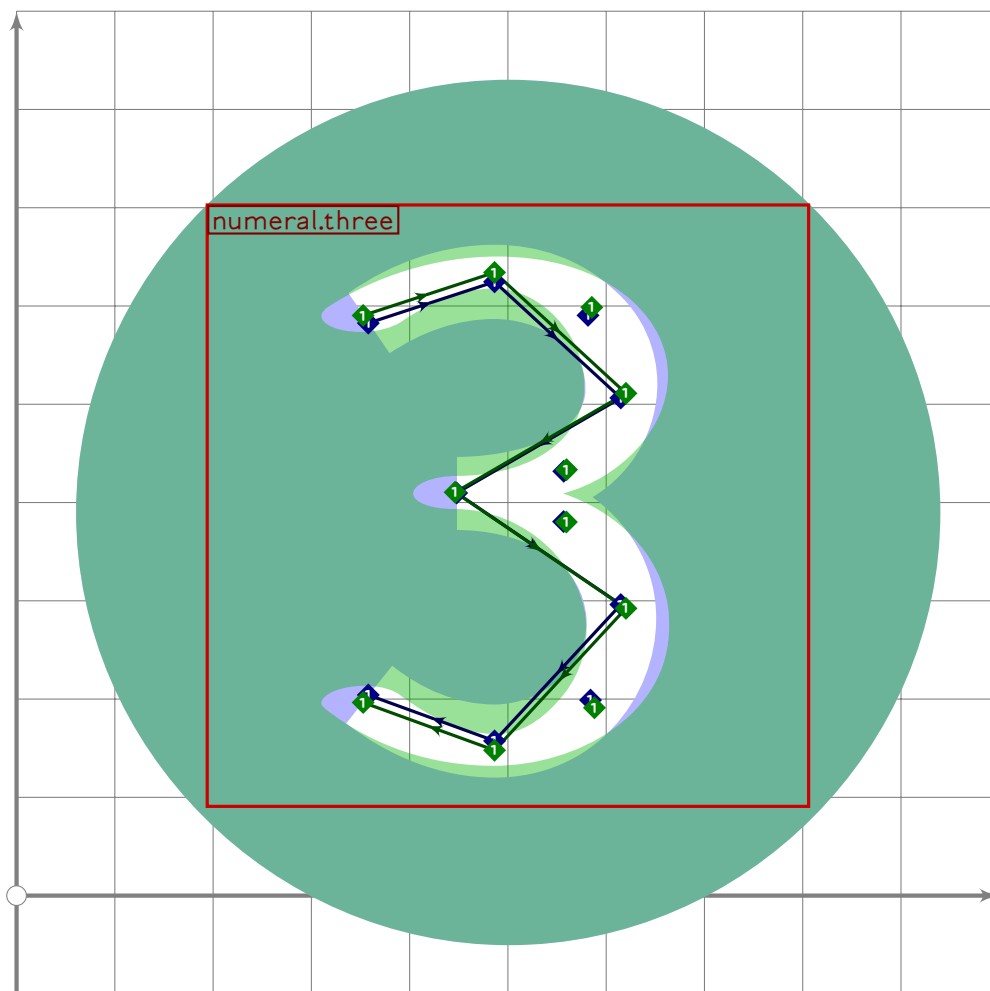
```



```

56 % 2
57 % BACKGROUND 25CF
58 begint Suglyph("uni2777",119);
59   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.two);
60   i:=0; forever: exitif find_stroke(i)<1;
61     set_bosize(i,107); i:=i-1; endfor;
62   tsu_render;
63 endtsuglyph;
64

```

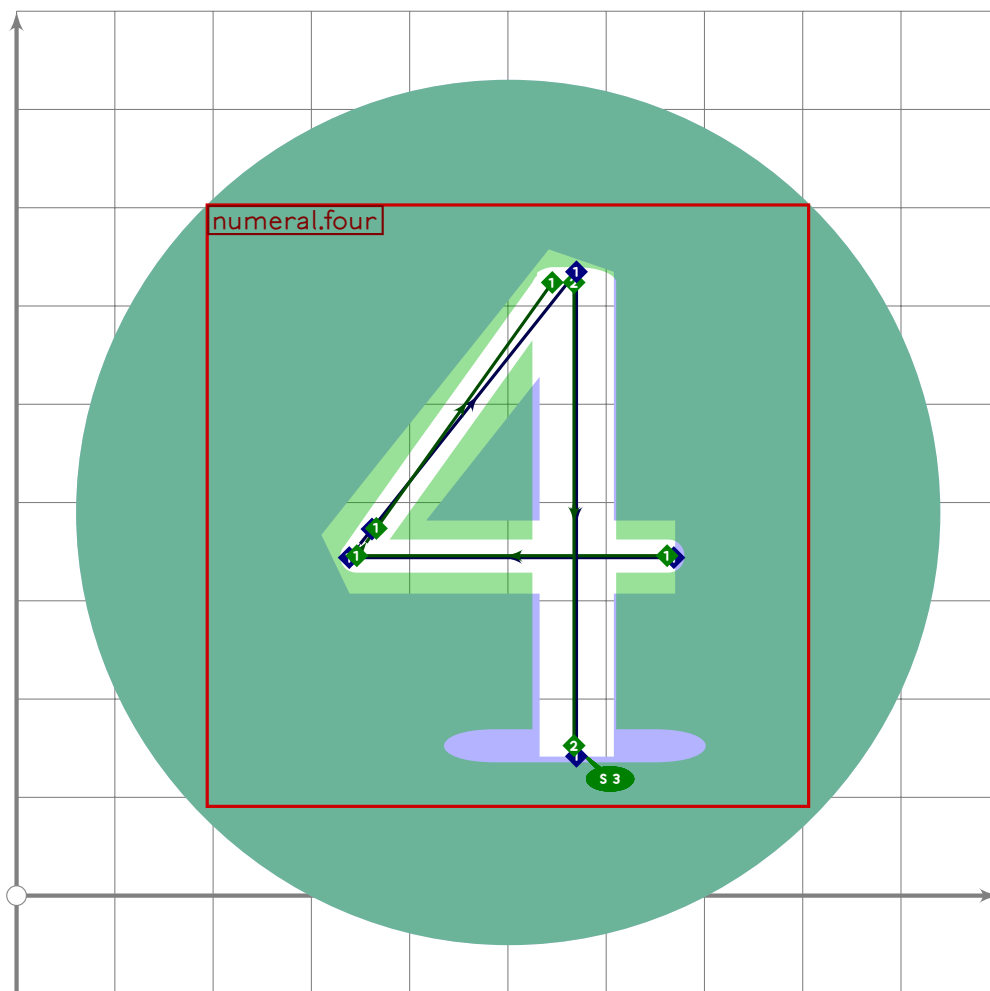


```

65 % 3
66 % BACKGROUND 25CF
67 begint Suglyph("uni2778",120);
68   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.three);
69   i:=0; forever: exitif find_stroke(i)<1;
70     set_bosize(i,107); i:=i-1; endfor;
71   tsu_render;
72 endtsuglyph;
73

```

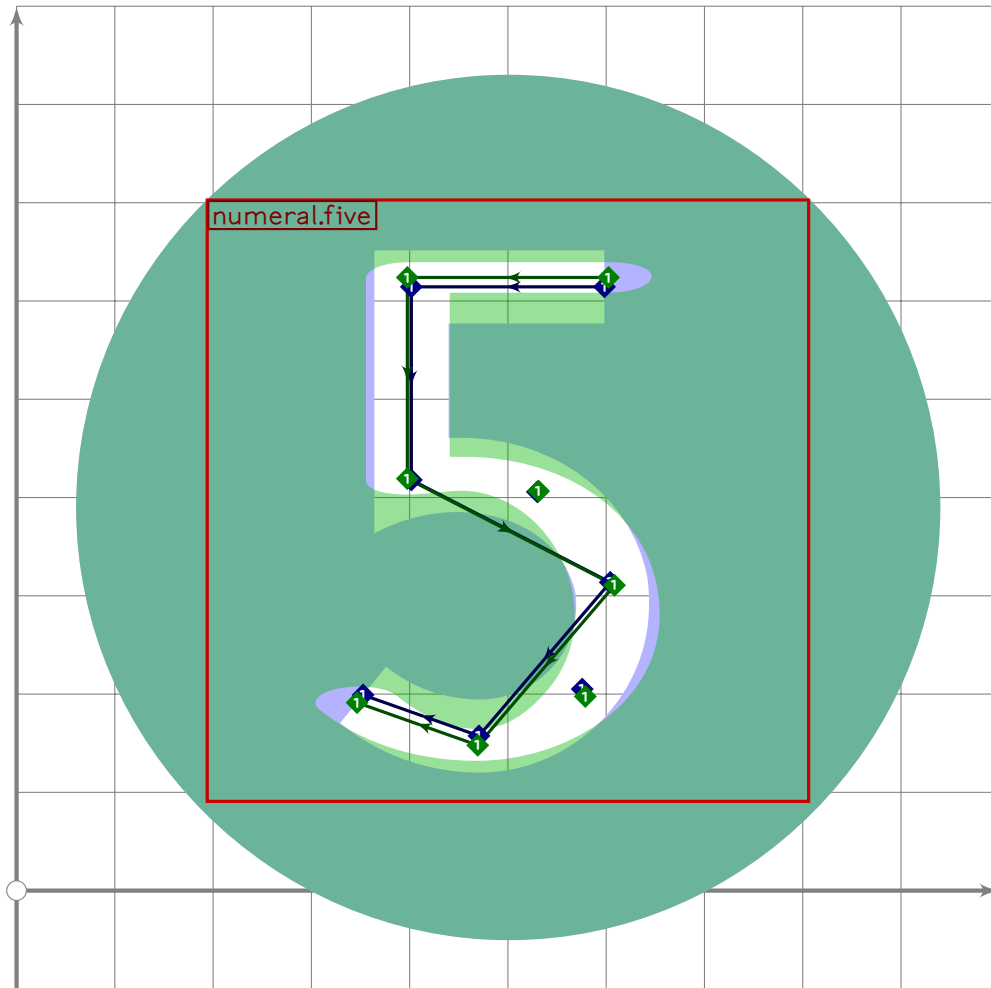
U+2779
tsuku.uni2779



```

74 % 4
75 % BACKGROUND 25CF
76 begint Suglyph("uni2779",121);
77   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.four);
78   i:=0; forever: exitif find_stroke(i)<1;
79     set_bosize(i,107); i:=i-1; endfor;
80   tsu_render;
81 endtsuglyph;
82

```

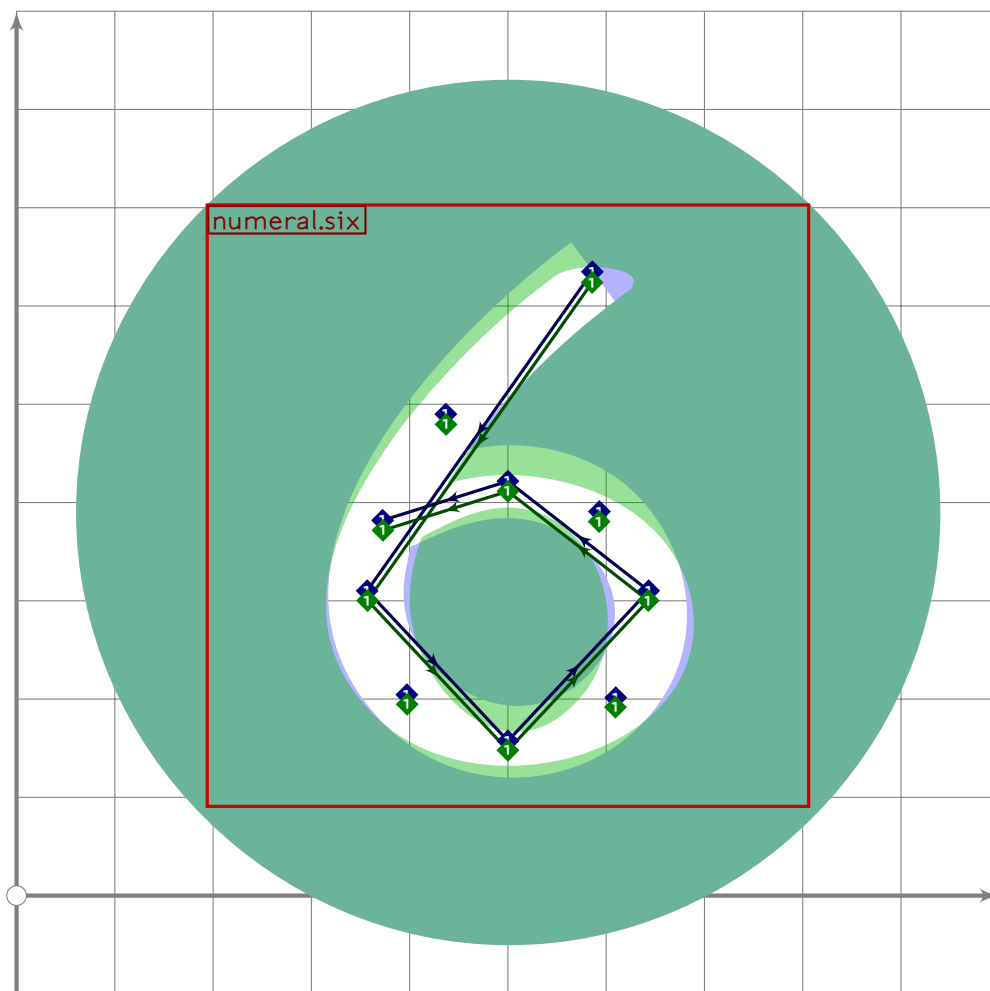


```

83 % 5
84 % BACKGROUND 25CF
85 begint Suglyph("uni277A",122);
86   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.five);
87   i:=0; forever: exitif find_stroke(i)<1;
88     set_bosize(i,107); i:=i-1; endfor;
89   tsu_render;
90 endtsuglyph;
91

```

U+277B
tsuku.uni277B

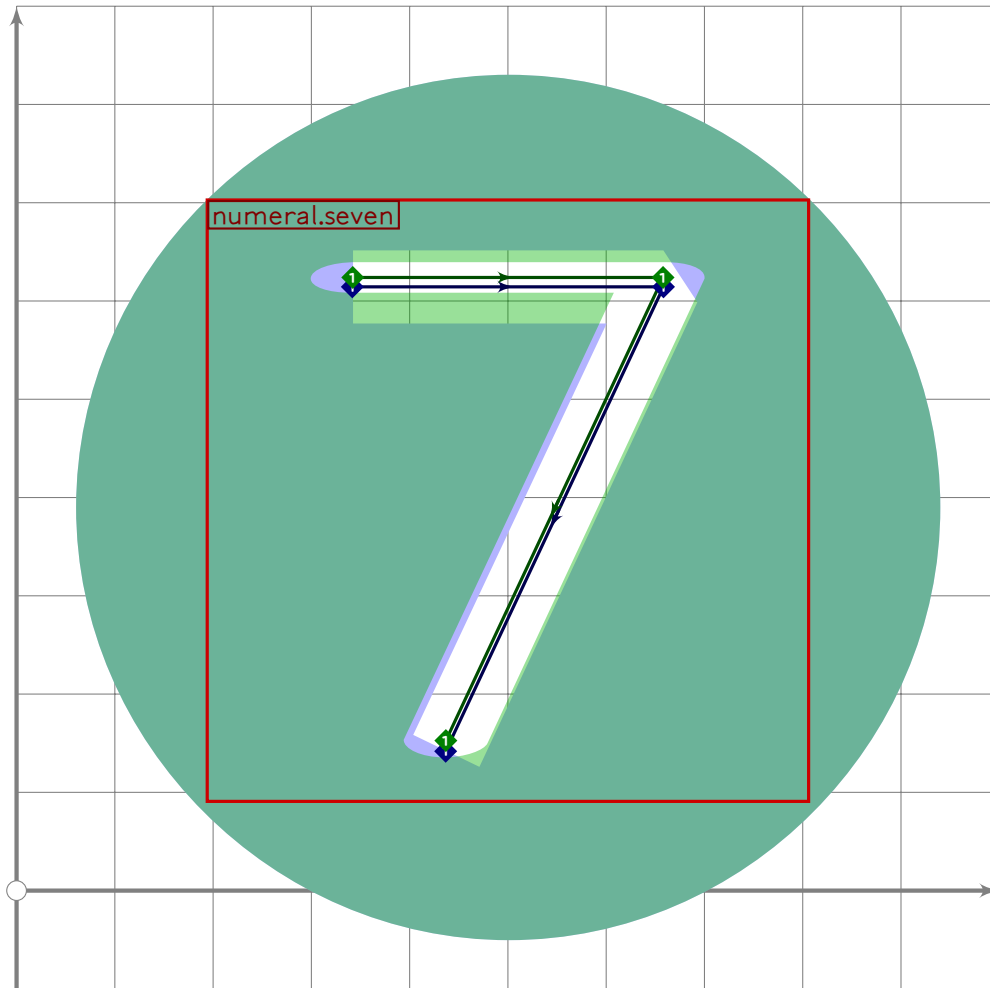


27

```

92 % 6
93 % BACKGROUND 25CF
94 begint Suglyph("uni277B",123);
95   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.six);
96   i:=0; forever: exitif find_stroke(i)<1;
97     set_bosize(i,107); i:=i-1; endfor;
98   tsu_render;
99 endtsuglyph;
100

```

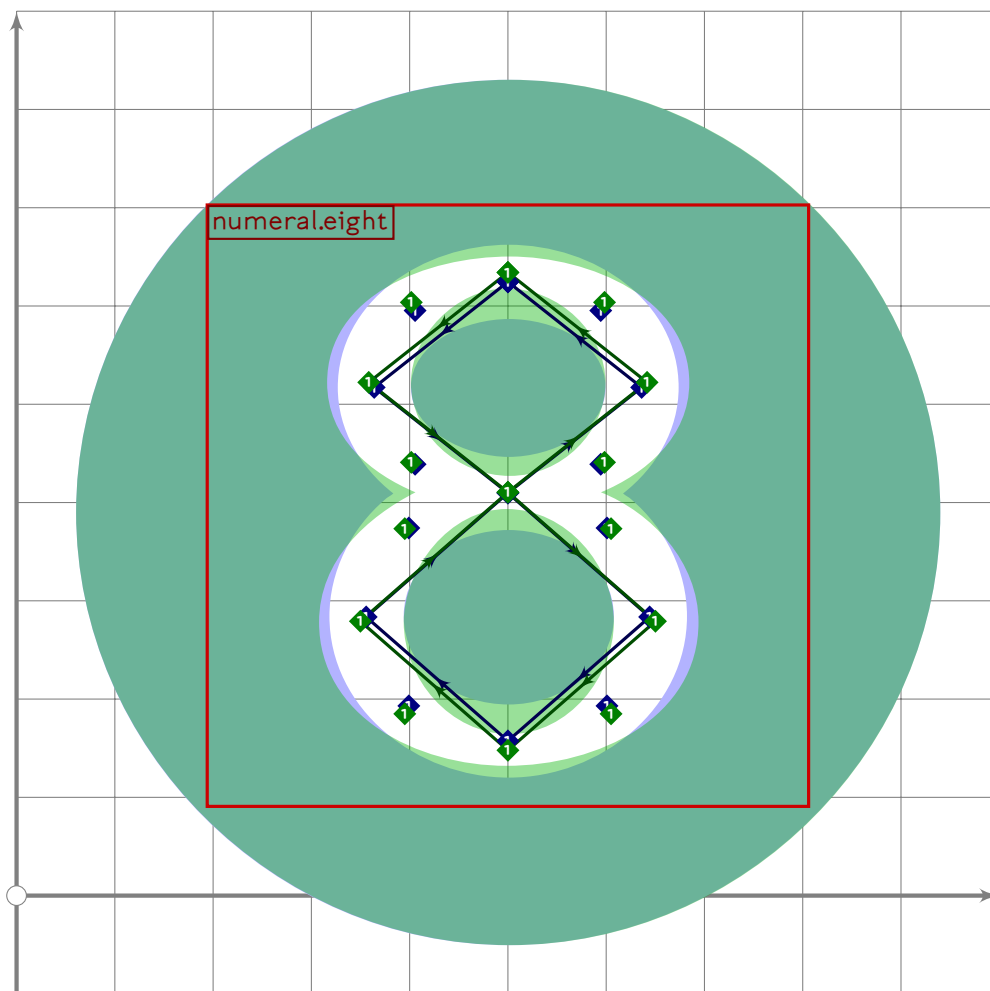


```

101 % 7
102 % BACKGROUND 25CF
103 begint Suglyph("uni277C";124);
104   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.seven);
105   i:=0; forever: exitif find_stroke(i)<1;
106     set_bosize(i,107); i:=i-1; endfor;
107   tsu_render;
108 endtsuglyph;
109

```

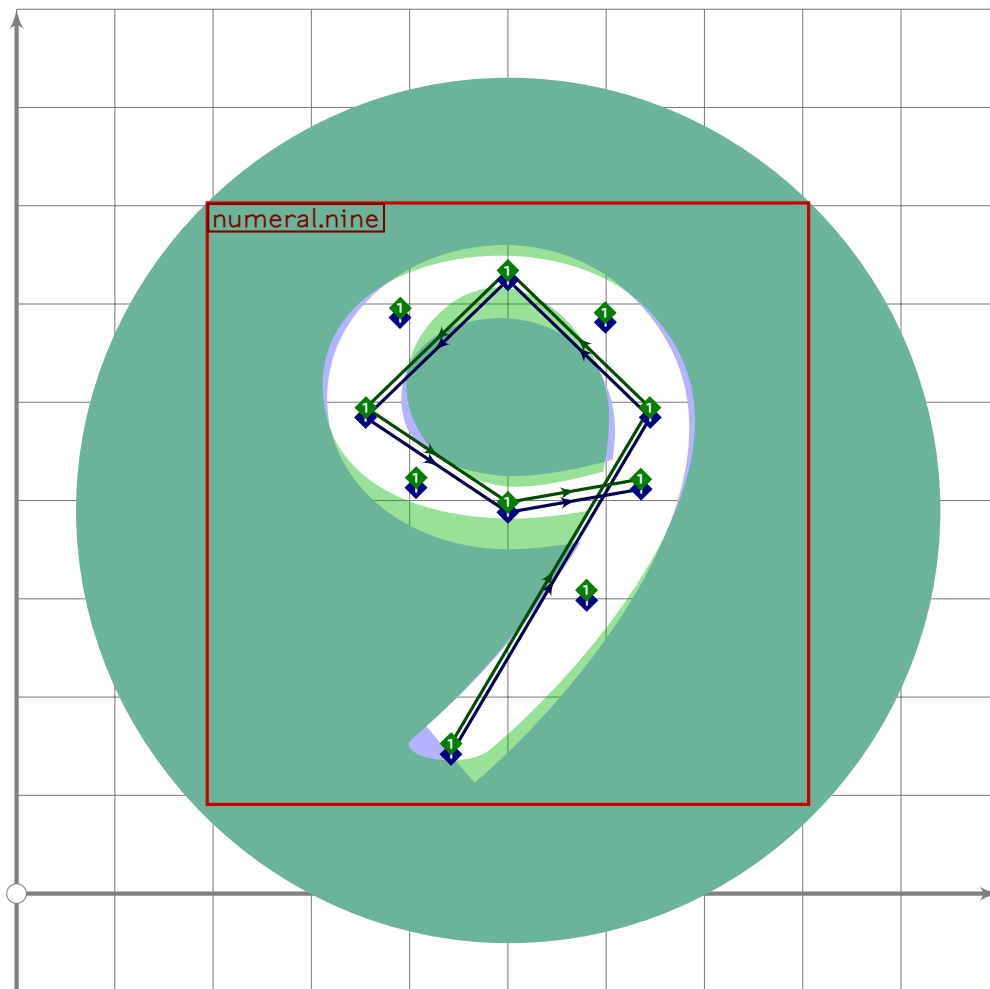
U+277D
tsuku.uni277D



```

110 % 8
111 % BACKGROUND 25CF
112 begintsuglyph("uni277D";125);
113   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.eight);
114   i:=0; forever: exitif find_stroke(i)<1;
115     set_bosize(i,107); i:=i-1; endfor;
116   tsu_render;
117 endtsuglyph;
118

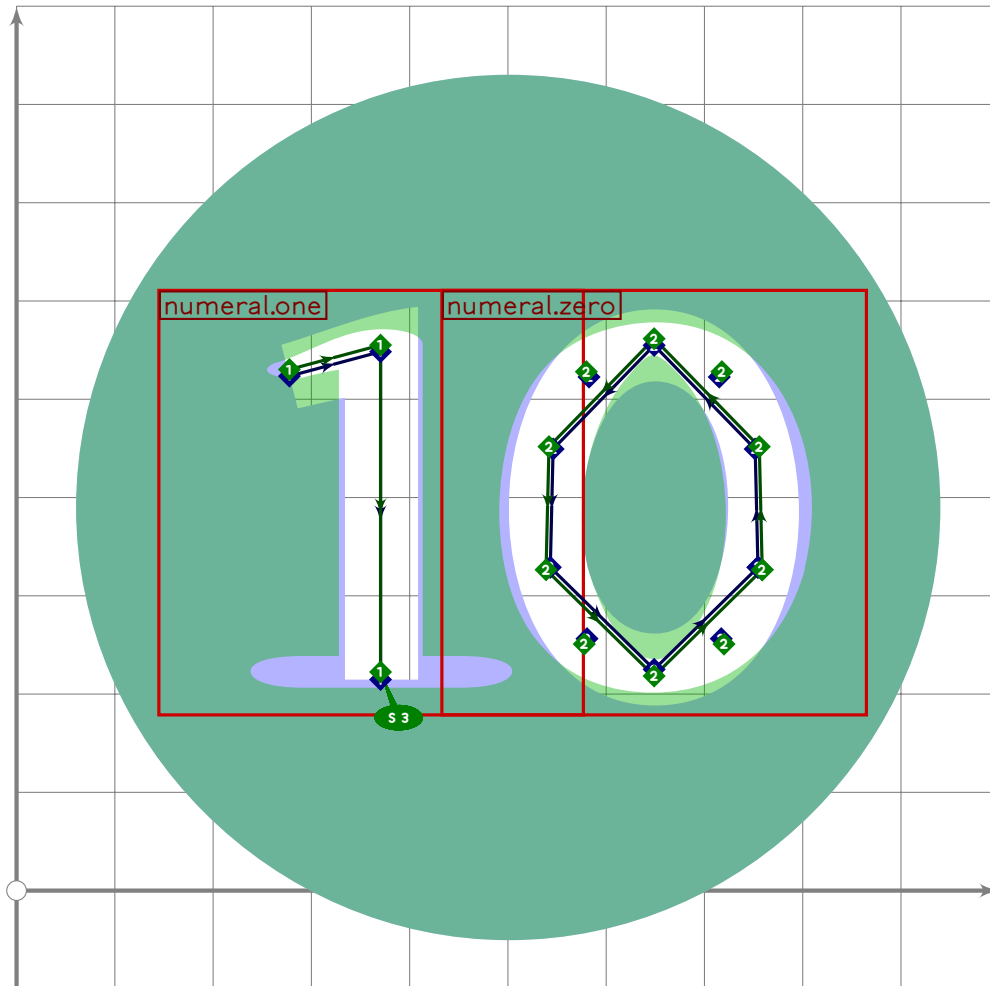
```

```

119 % 9
120 % BACKGROUND 25CF
121 begint Suglyph("uni277E",126);
122   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.nine);
123   i:=0; forever: exitif find_stroke(i)<1;
124     set_bosize(i,107); i:=i-1; endfor;
125   tsu_render;
126 endtsuglyph;
127

```



27

```

128 % 10
129 % BACKGROUND 25CF
130 beginsuglyph("uni277F",127);
131   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
132   numeric x[],y[];
133   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
134   i:=0; forever: exitif find_stroke(i)<1;
135     set_bosize(i,107); i:=i-1; endfor;
136   tsu_render;
137 endtsuglyph;
138
139
140
141 endfont;
142
143

```

tsuku-2e.mp

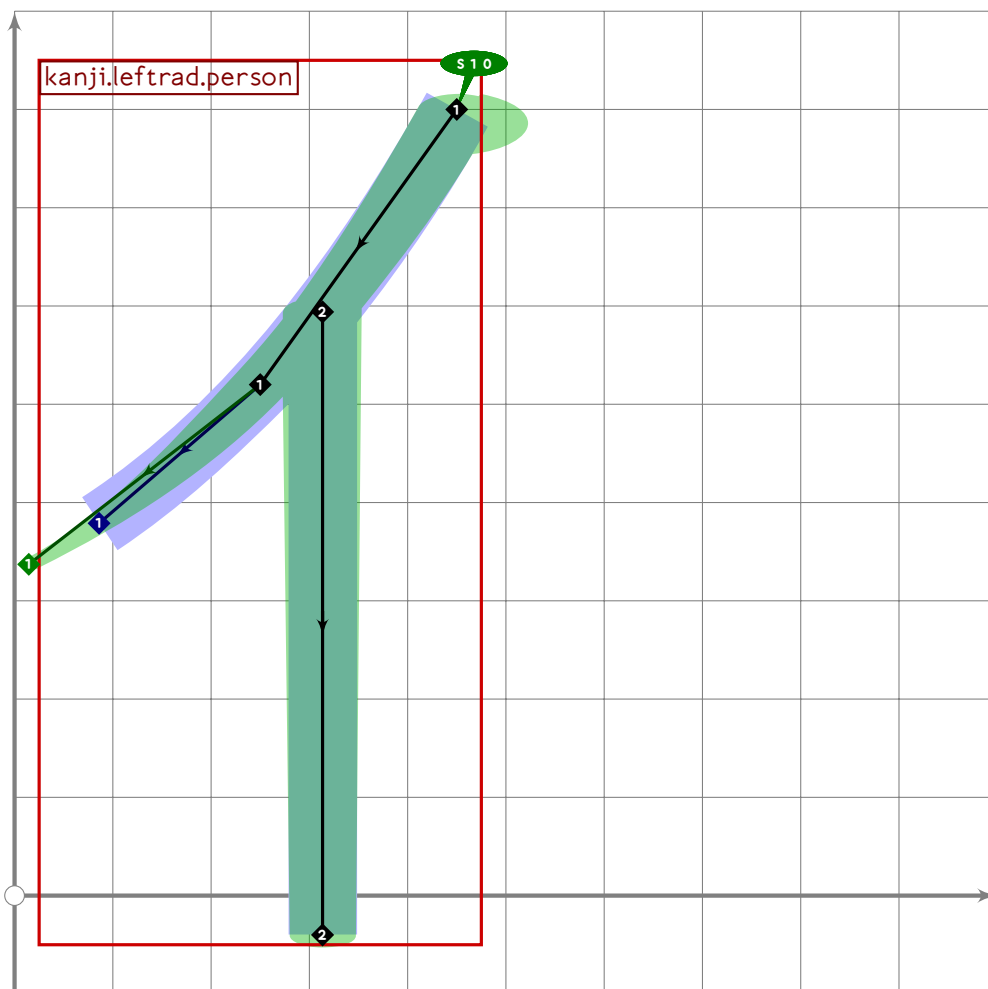
```
1 %
2 % Unicode page 2E (Radicals Supplement) for Tsukurimashou
3 % Copyright (C) 2012, 2013, 2021 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31
32
33 beginfont
34
35 % AUTODEPS
36 input bkencl.mp;
37 input bottomrad.mp;
38 input buildkanji.mp;
39 input gradefive.mp;
40 input gradefour.mp;
41 input gradenine.mp;
42 input gradeone.mp;
43 input gradethree.mp;
44 input gradetwo.mp;
45 input leftrad.mp;
46 input radical.mp;
47 input rightrad.mp;
48 input toprad.mp;
49
50 do_late_includes;
51
52
53
```

2E

Cjk Radicals Supplement

```
54 % CJK RADICALS SUPPLEMENT
55
```

U+2E85
tsuku.uni2E85

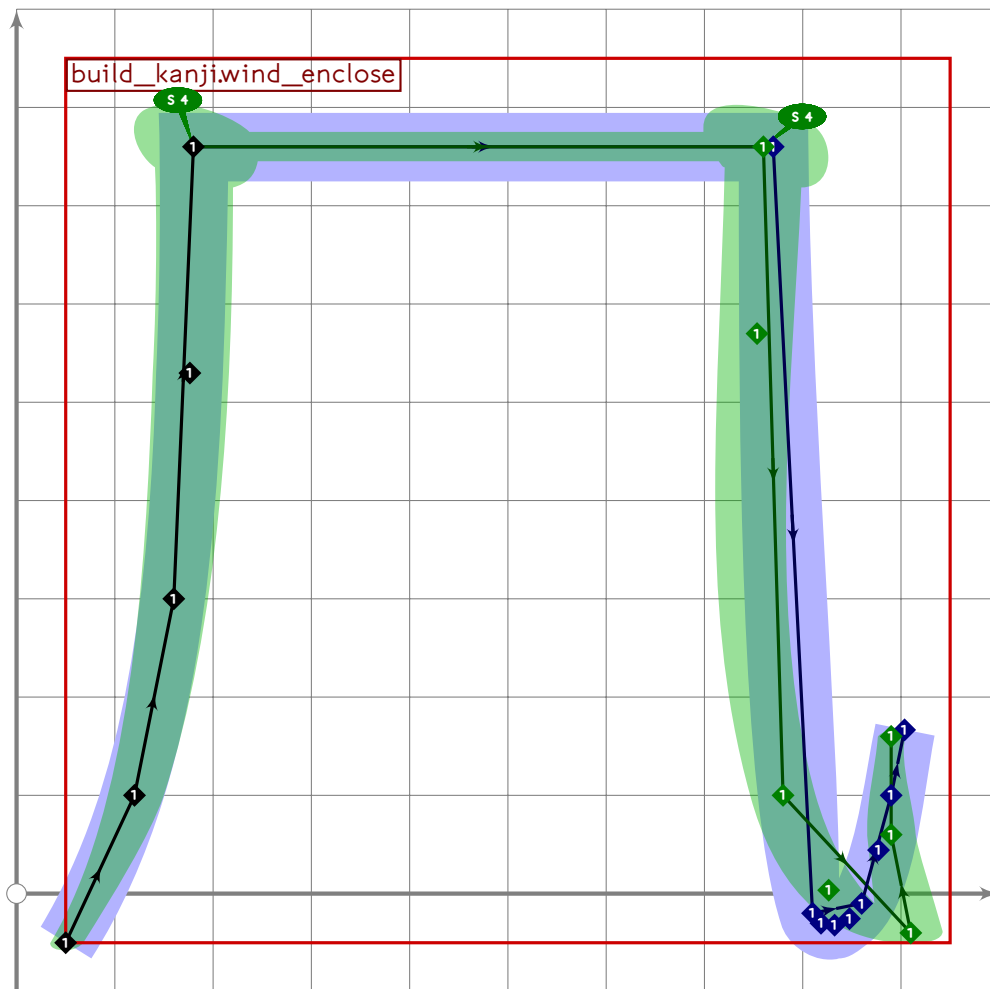


```

56 % hito/jin "person" as radical
57 begintsuglyph("uni2E85",133);
58   tsu_xform(identity xscaled 0.5)(kanji.leftrad.person);
59   tsu_render;
60 endsuglyph;
61

```

2E

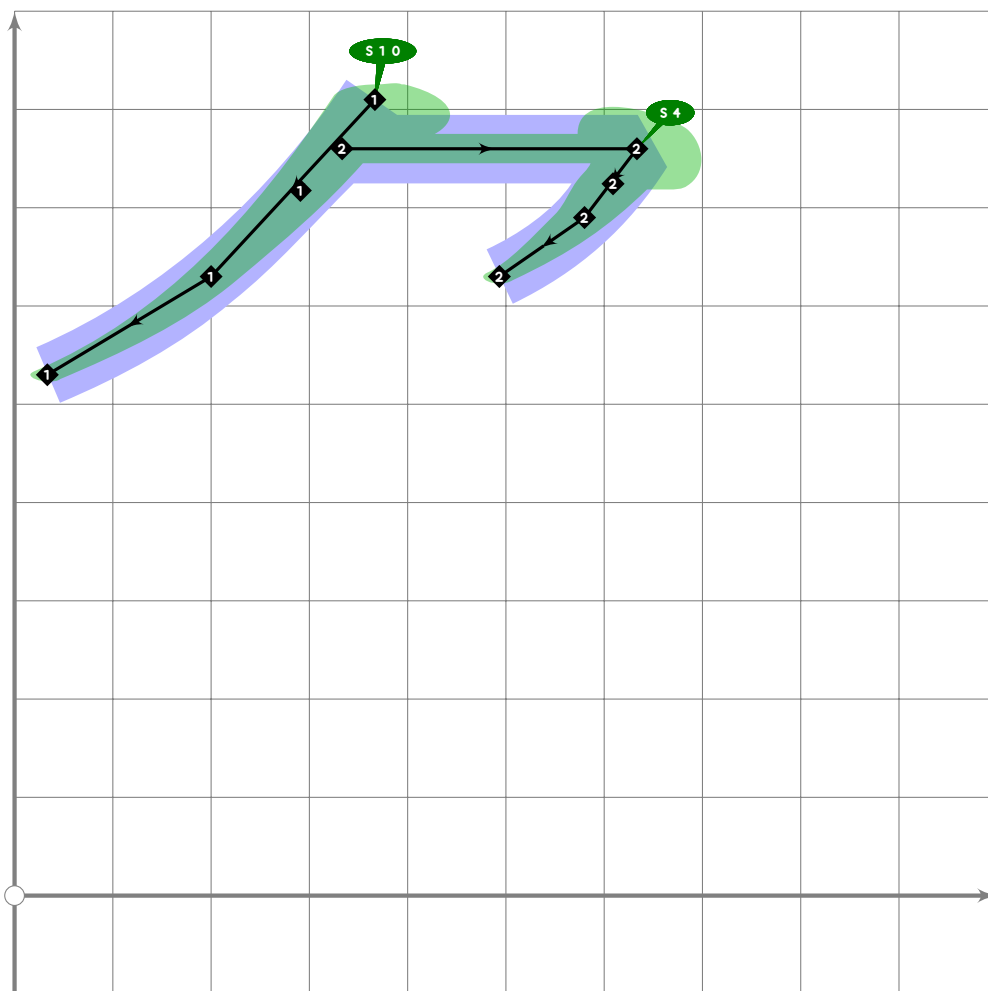


```

62 % Unicode calls it "table"
63 begintsuglyph("uni2E87",135);
64   build_kanji.wind_enclose();
65   tsu_render;
66 endtsuglyph;
67

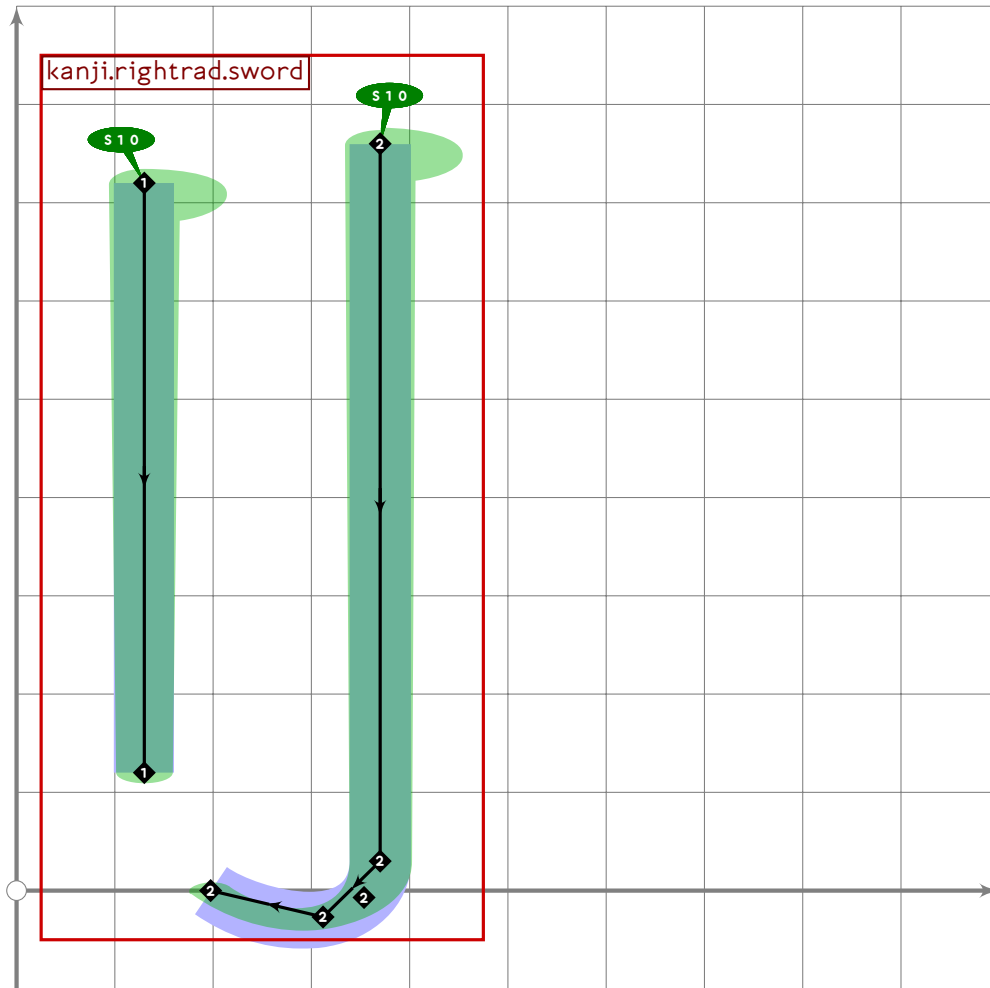
```

U+2E88
tsuku.uni2E88



```
68 % Unicode calls it "knife one"
69 begint Suglyph("uni2E88",136);
70 build_kanji.attach_fishhook(0.8)(
71   perl_structure:=perl_structure&"eids._2";
72   push_stroke((200,0)-(200,800)-(800,800),
73     (1.5,1.5)-(1.6,1.6)-(1.6,1.6));
74   set_bosize(0,0));
75 tsu_render;
76 endtsuglyph;
77
```

2E



78 % tou "sword radical"

79 begintsuglyph("uni2E89",137);

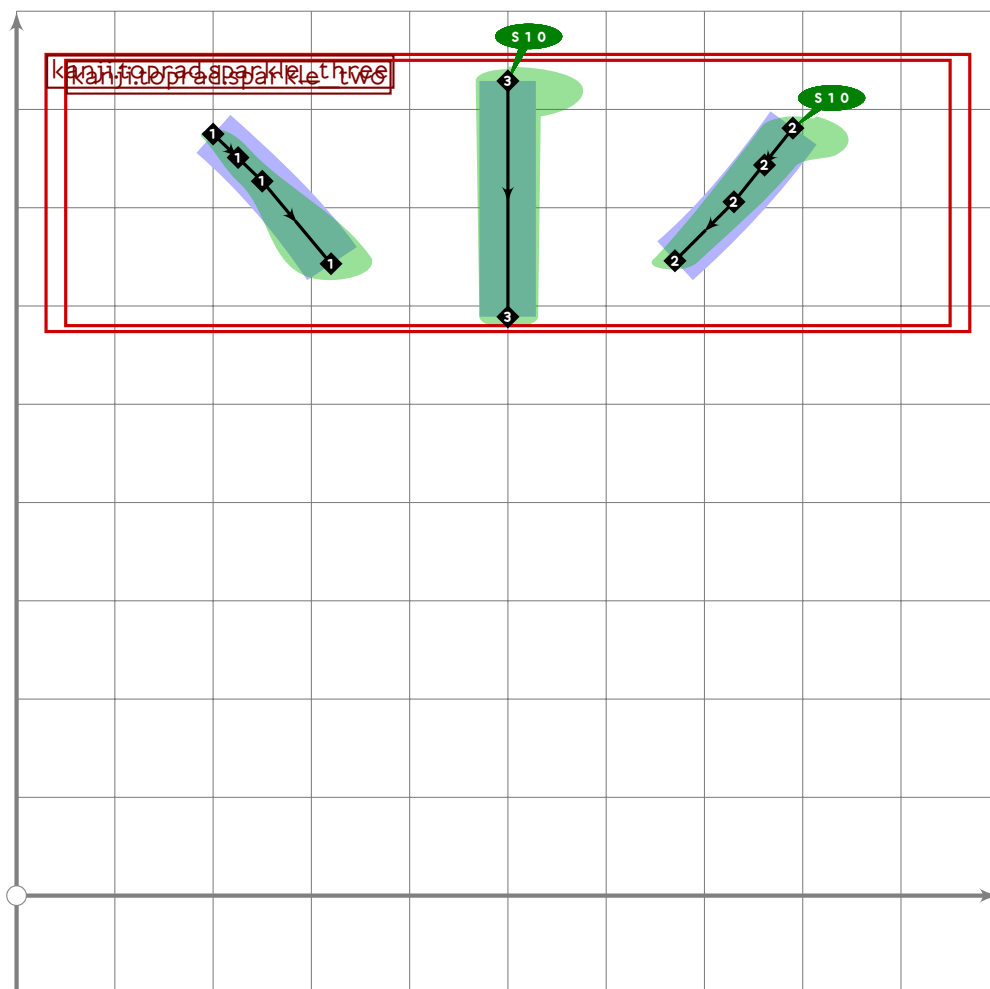
80 tsu_xform(identity xscaled 0.5)(kanji.rightrad.sword);

81 tsu_render;

82 endtsuglyph;

83

U+2E8C
tsuku.uni2E8C

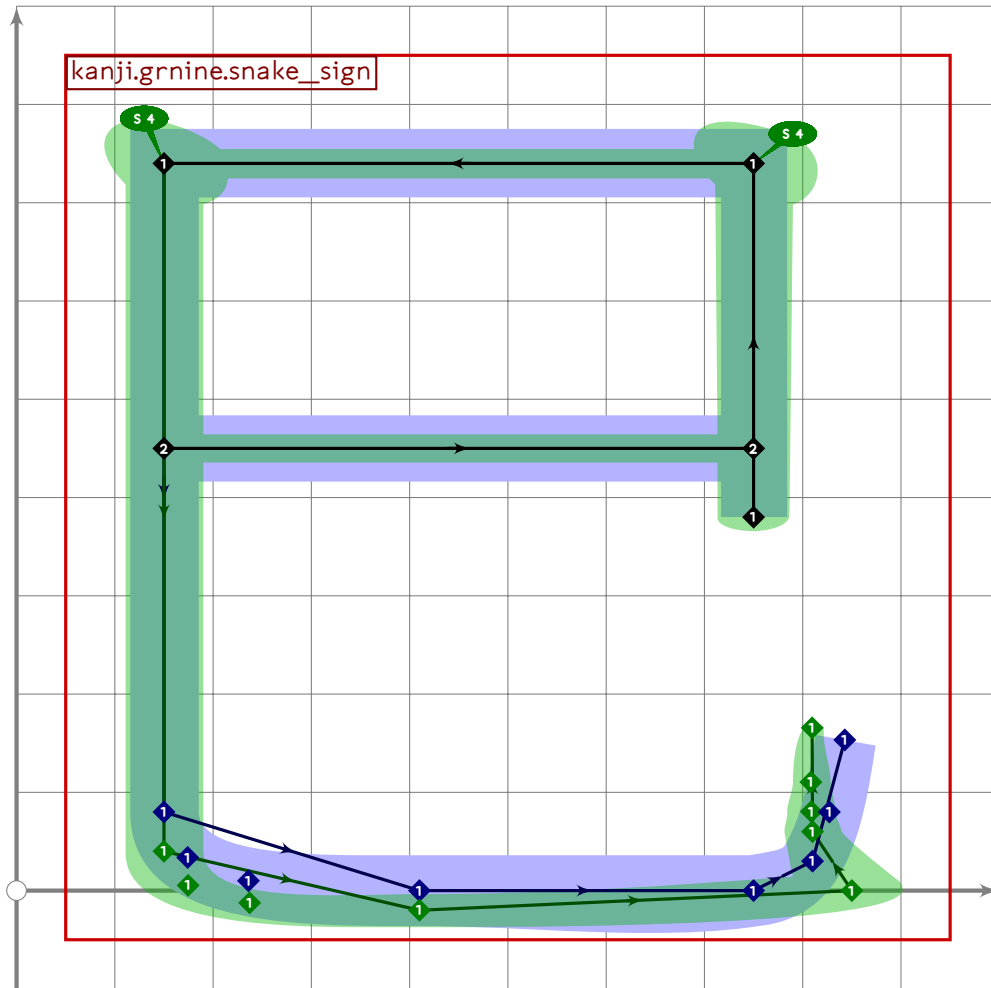


```

84 % Unicode calls it "small one"
85 begintsuglyph("uni2E8C",140);
86   build_kanji.tb(620,80)
87     (kanji.toprad.sparkle_three)
88   ();
89   tsu_render;
90 endtsuglyph;
91

```

2E

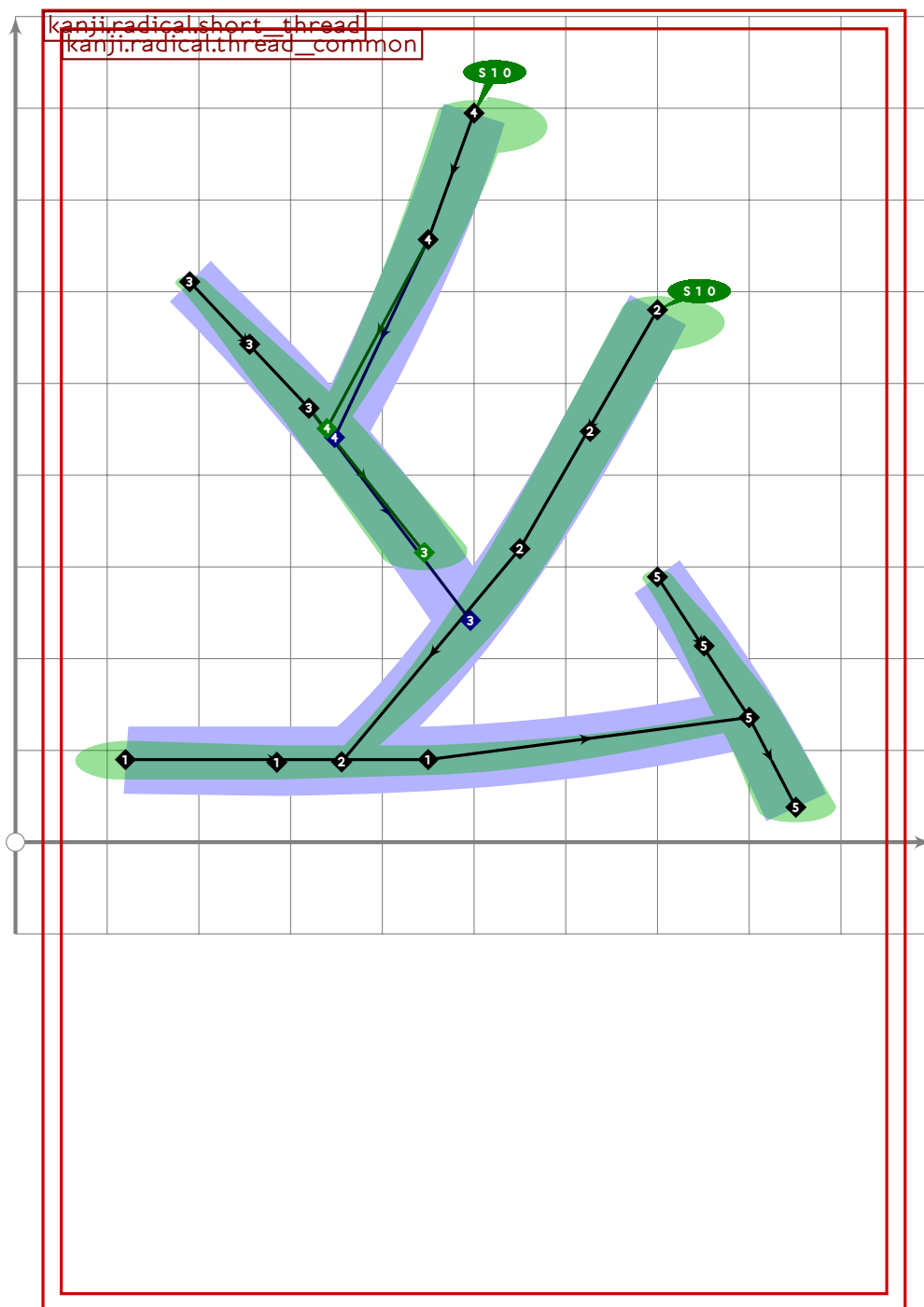


```

92 % shi/mi "snake zodiac sign"
93 begintsuglyph("uni2E92",146);
94   kanji.grnine.snake_sign;
95   tsu_render;
96 endtsuglyph;
97

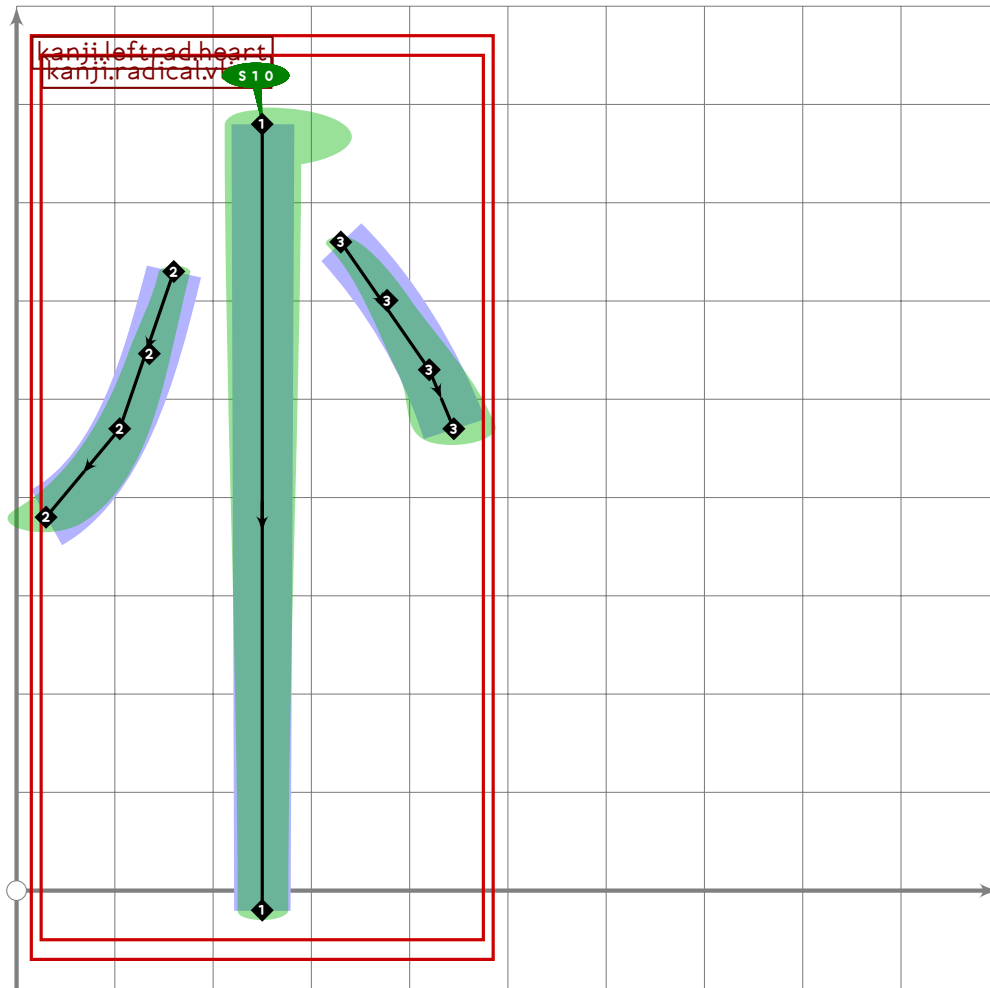
```

U+2E93
tsuku.uni2E93



2E

```
98 % you/chiisai "short thread radical"  
99 begintsuglyph("uni2E93";147);  
100 kanji.radical.short_thread;  
101 tsu_render;  
102 endtsuglyph;  
103
```

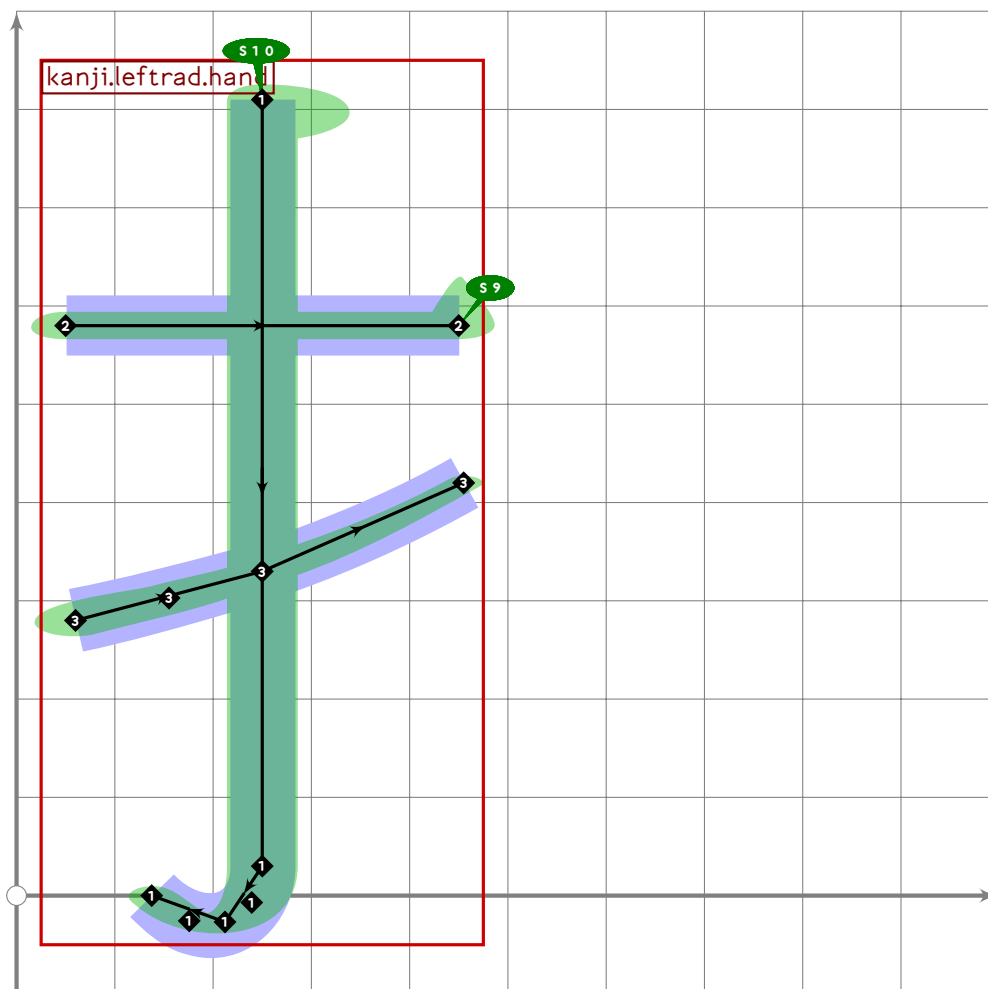


```

104 % left radical version of "heart"
105 beginsuglyph("uni2E96",150);
106   tsu_xform(identity xscaled 0.5)(kanji.leftrad.heart);
107   tsu_render;
108 endsuglyph;
109

```

U+2E98
tsuku.uni2E98

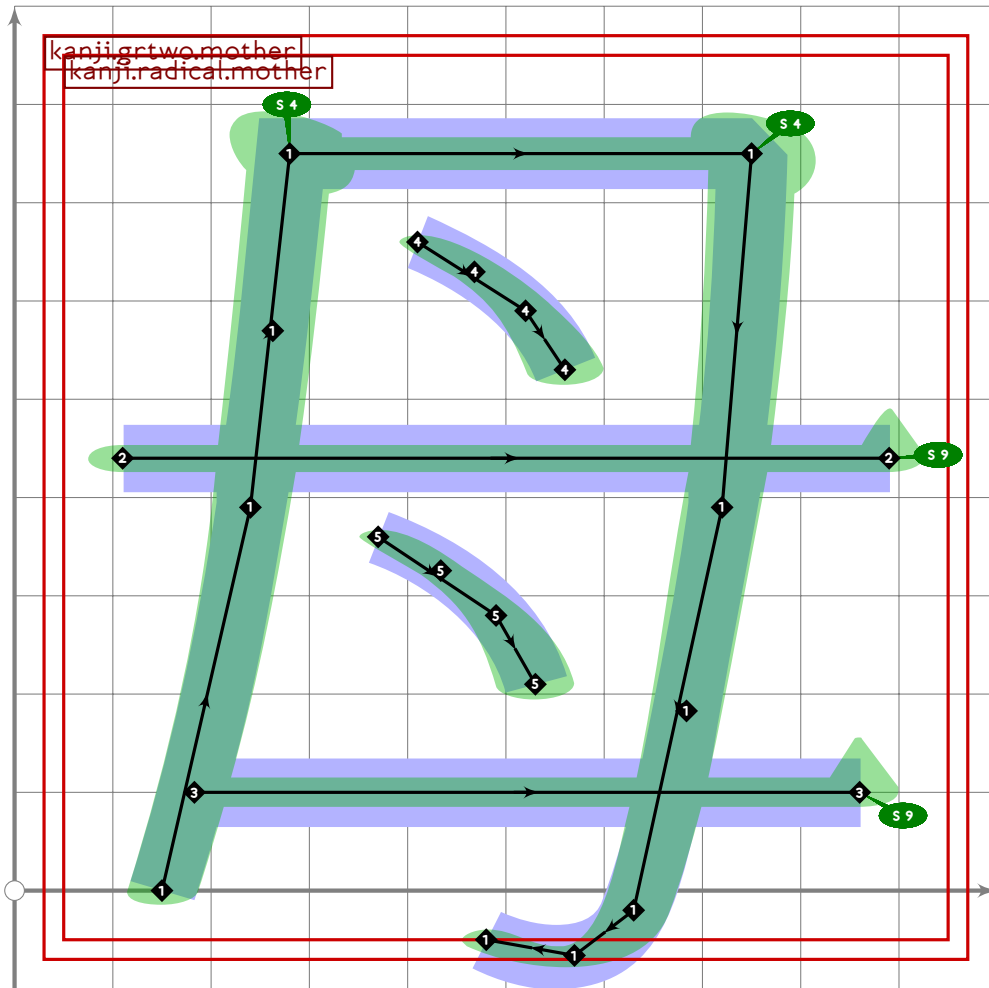


```

110 % hand radical
111 begintsuglyph("uni2E98",152);
112 tsu_xform(identity xscaled 0.5)(kanji.leftrad.hand);
113 tsu_render;
114 endsuglyph;
115
116 % special form with straight left side
117 begintsuglyph("uni2E9D",157);
118 kanji.bottomrad.moon;
119 tsu_render;
120 endsuglyph;
121

```

[see page 845]

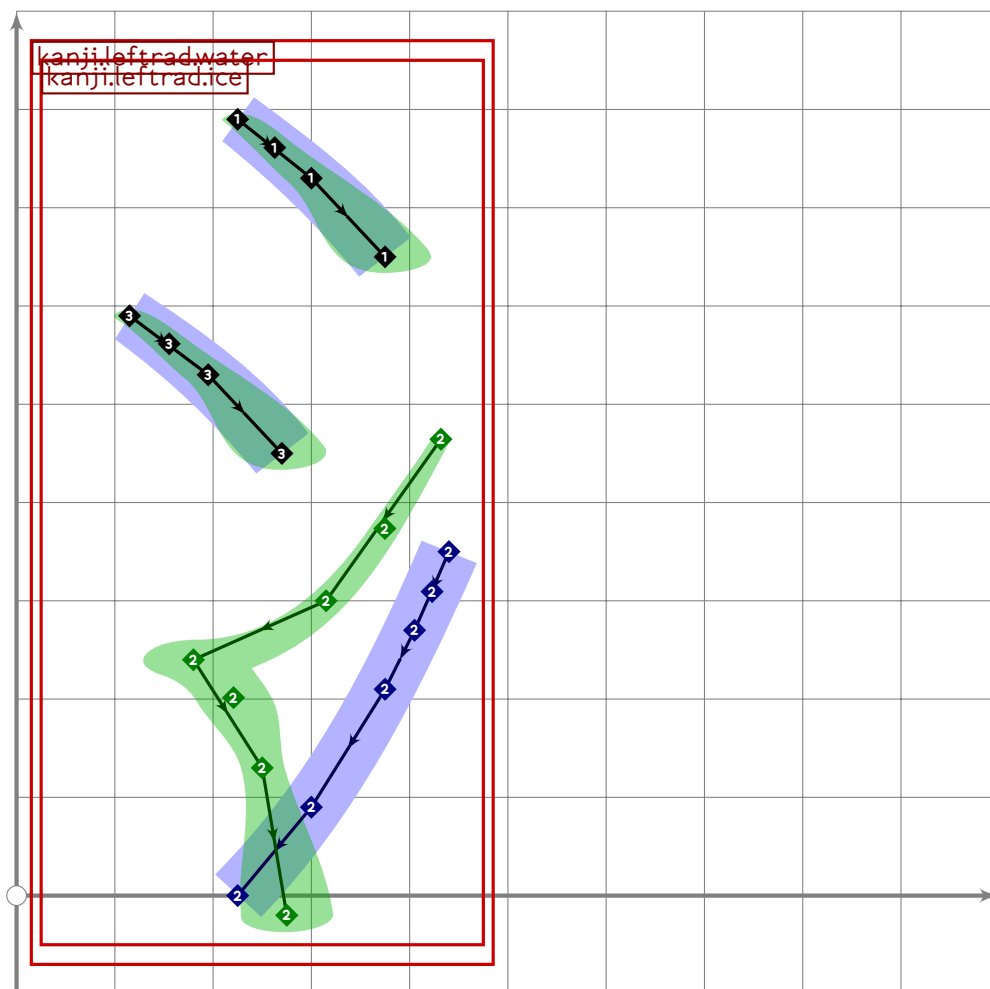


```

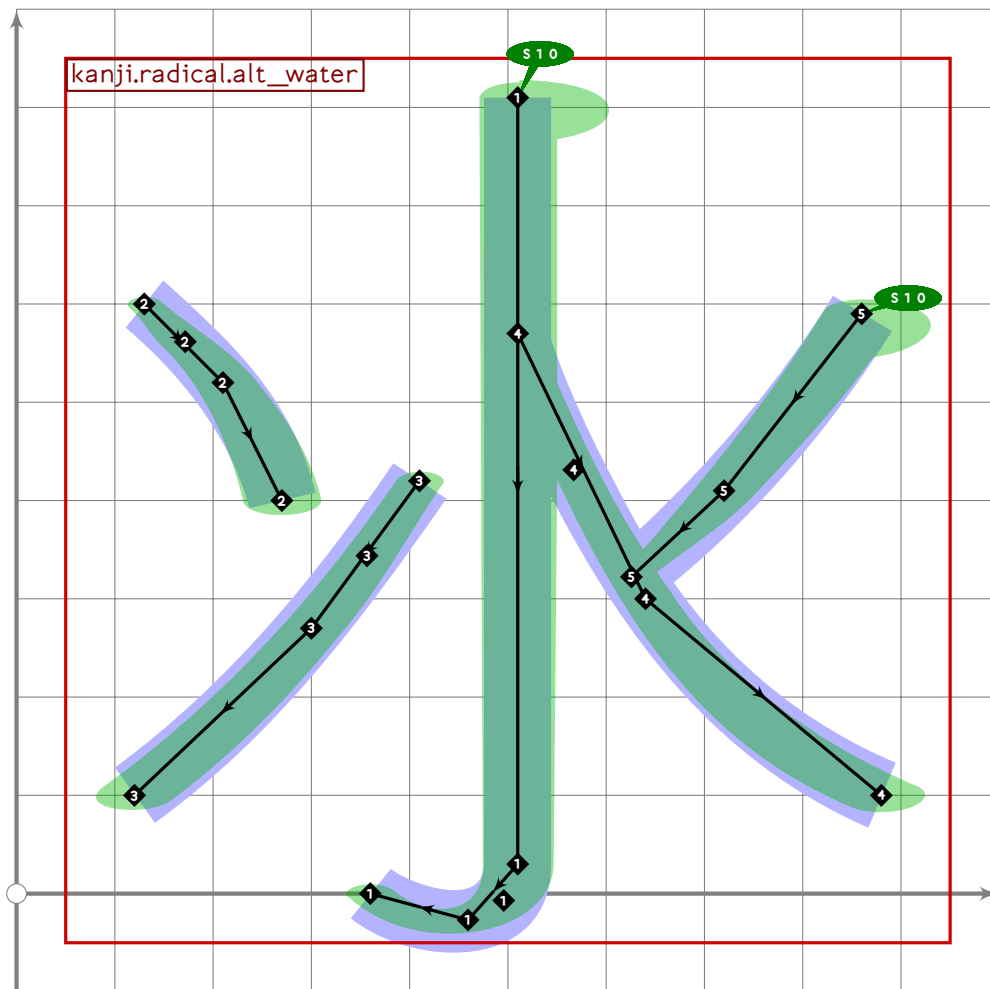
122 % bo/haha "mother"
123 beginsuglyph("uni2E9F",159);
124   kanji.grtwo.mother;
125   tsu_render;
126 endsuglyph;
127

```

U+2EA1
tsuku.uni2EA1



```
128 % extra "water side radical"
129 begintsuglyph("uni2EA1",161);
130 tsu_xform(identity xscaled 0.5)(kanji.leftrad.water);
131 tsu_render;
132 endtsuglyph;
133
```

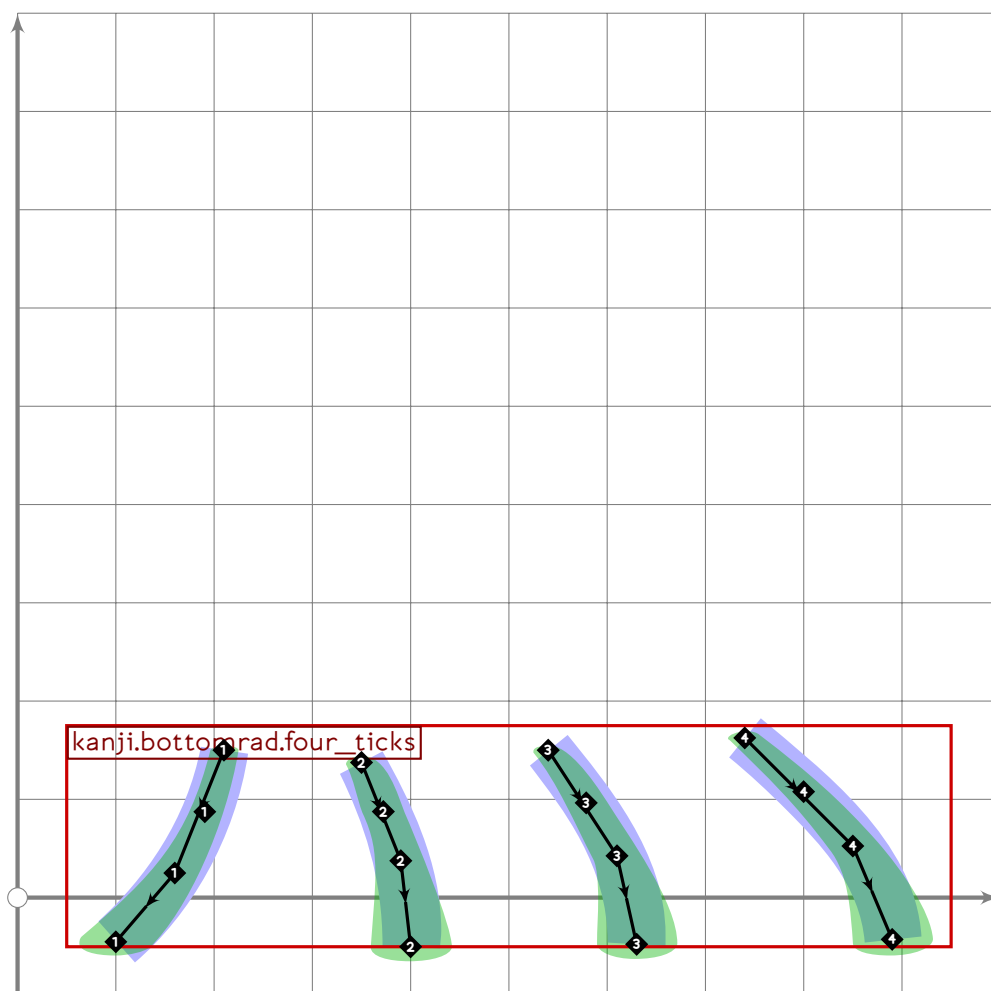


```

134 % water radical variant
135 begintsuglyph("uni2EA2";162);
136   kanji.radical.alt_water;
137   tsu_render;
138 endtsuglyph;
139

```

U+2EA3
tsuku.uni2EA3

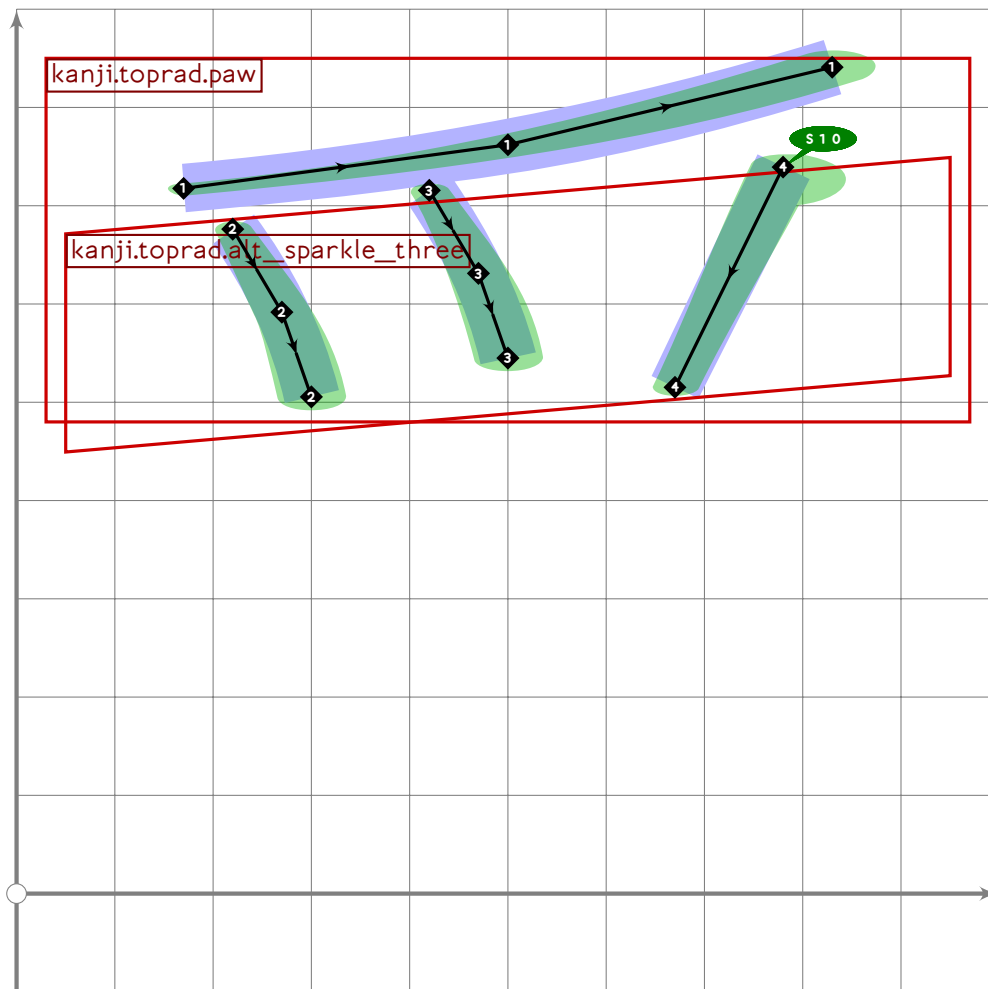


```

140 % Unicode calls it "fire"
141 begint Suglyph("uni2EA3",163);
142   build_kanji.tb(190;30)
143   ()
144   (kanji.bottomrad.four_ticks);
145   tsu_render;
146 endtsuglyph;
147

```

2E

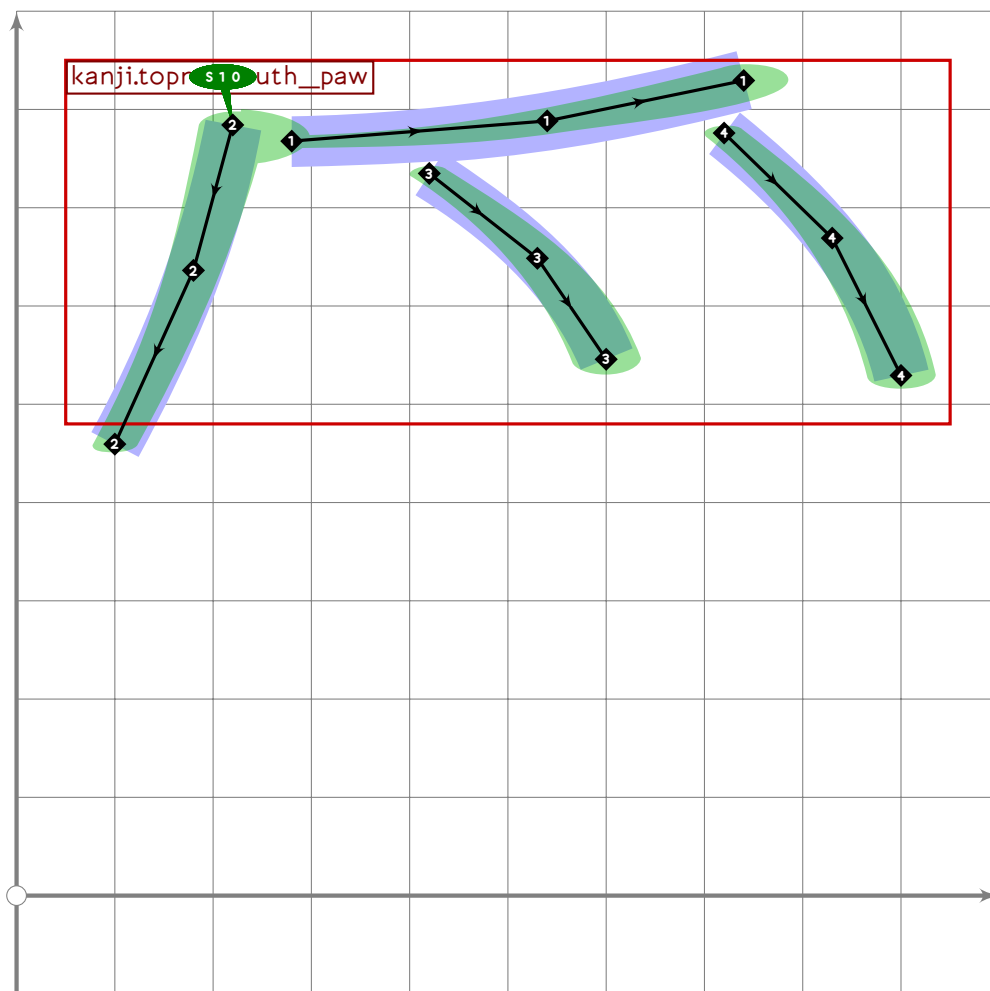


```

148 % Unicode calls it "paw one"
149 begintsuglyph("uni2EA4",164);
150   build_kanji.tb(480,0)
151     (kanji.toprad.paw)
152   ();
153   tsu_render;
154 endtsuglyph;
155

```

U+2EA5
tsuku.uni2EA5

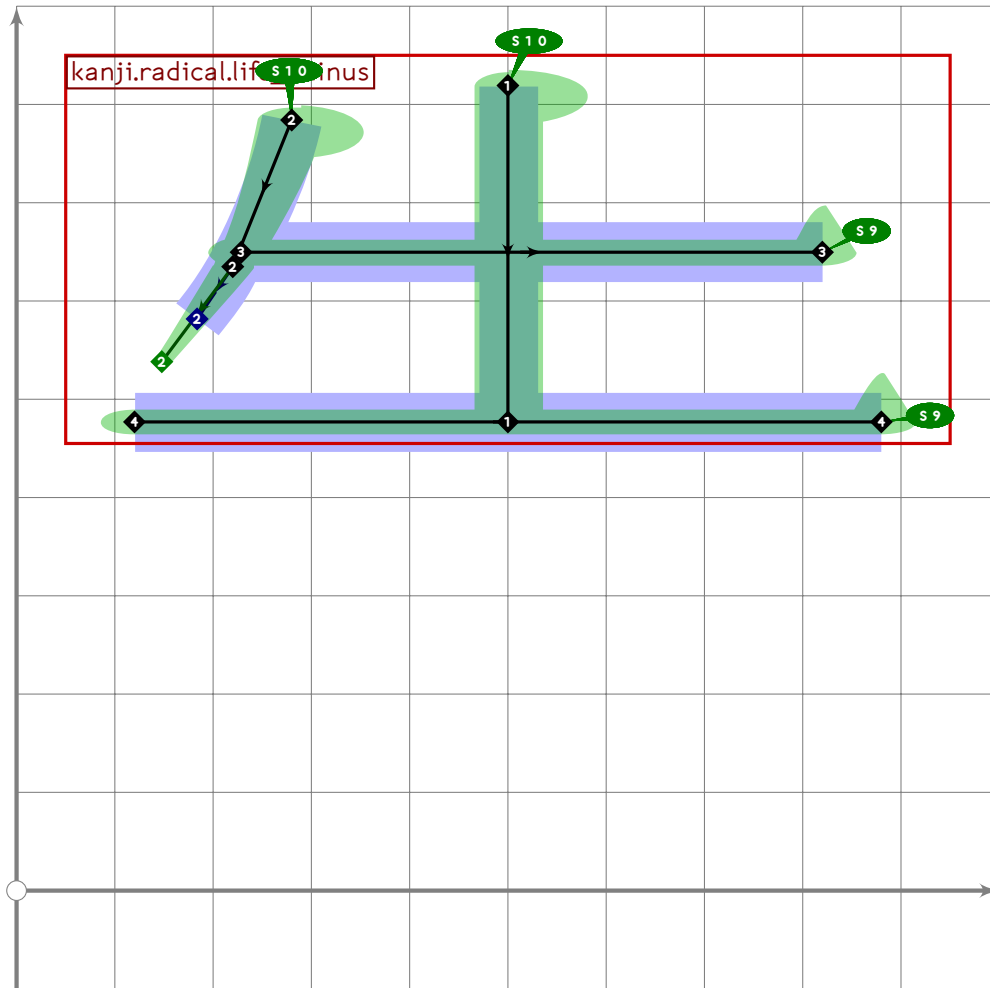


```

156 % Unicode calls it "paw two"
157 begint Suglyph("uni2EA5",165);
158   build_kanji.tb(480,0)
159     (kanji.toprad.south_paw)
160   ();
161   tsu_render;
162 endtsuglyph;
163

```

2E

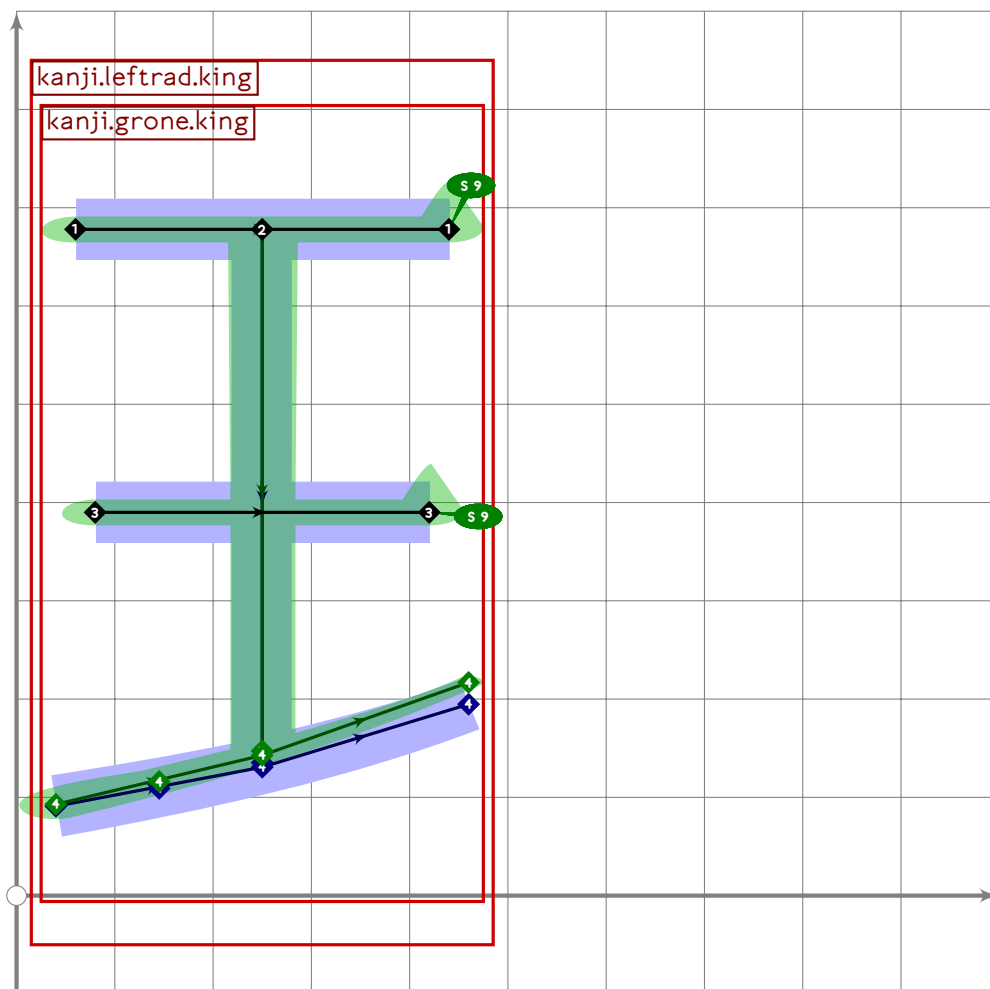


```

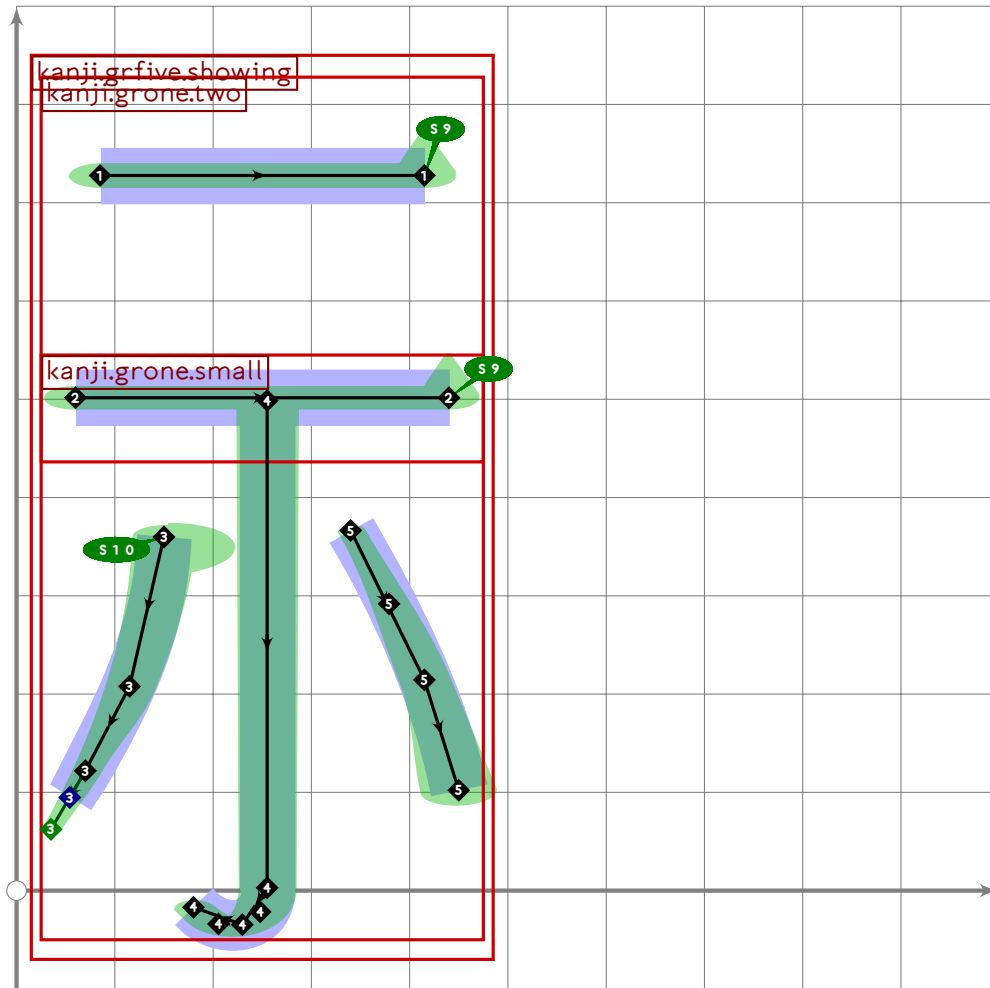
164 % Unicode calls it "cow"
165 begintsuglyph("uni2EA7",167);
166   build_kanji.tb(440,30)
167     (kanji.radical.life_minus)
168   ();
169   tsu_render;
170 endtsuglyph;
171

```

U+2EA9
tsuku.uni2EA9



```
172 % Unicode calls it "jade"
173 beginsuglyph("uni2EA9",169);
174   tsu_xform(identity xscaled 0.5)(kanji.leftrad.king);
175   tsu_render;
176 endsuglyph;
177
```

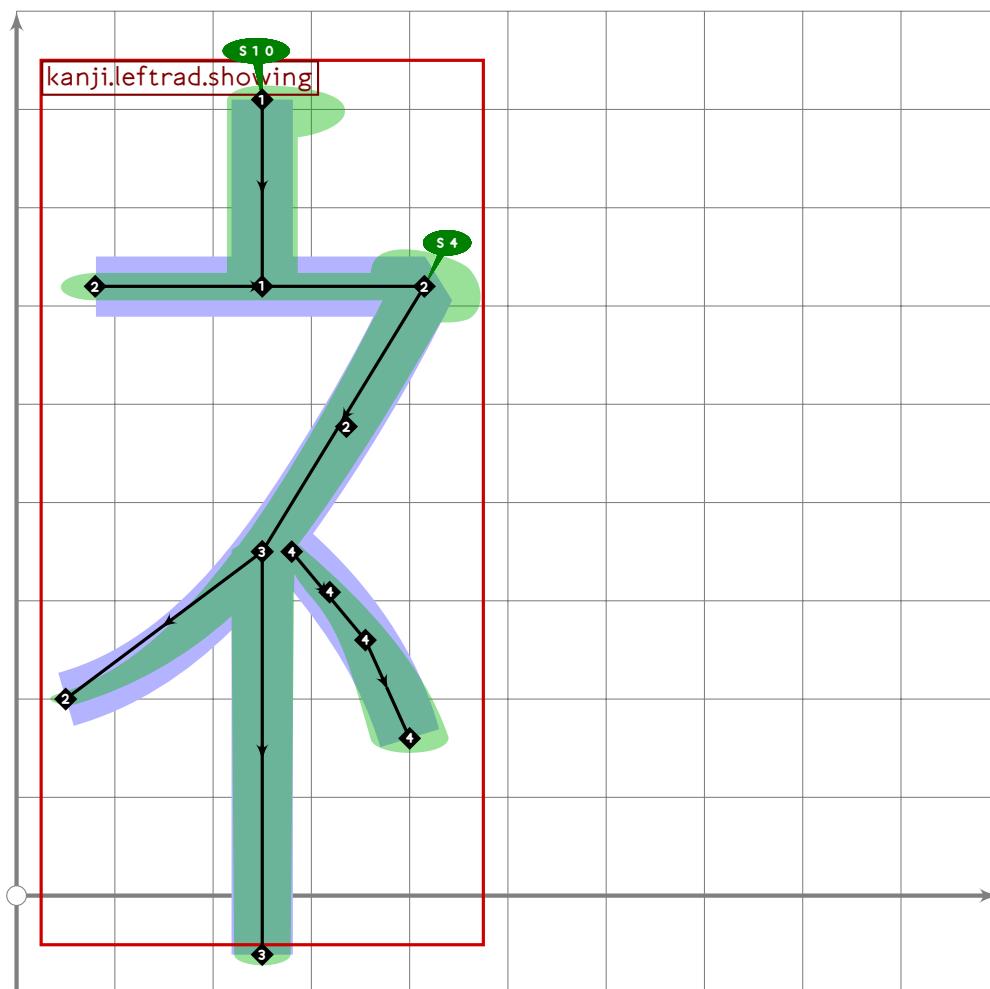


```

178 % Unicode calls it "spirit one"
179 begintsuglyph("uni2EAC";172);
180 tsu_xform(identity xscaled 0.5)(kanji.grfive.showing);
181 tsu_render;
182 endsuglyph;
183

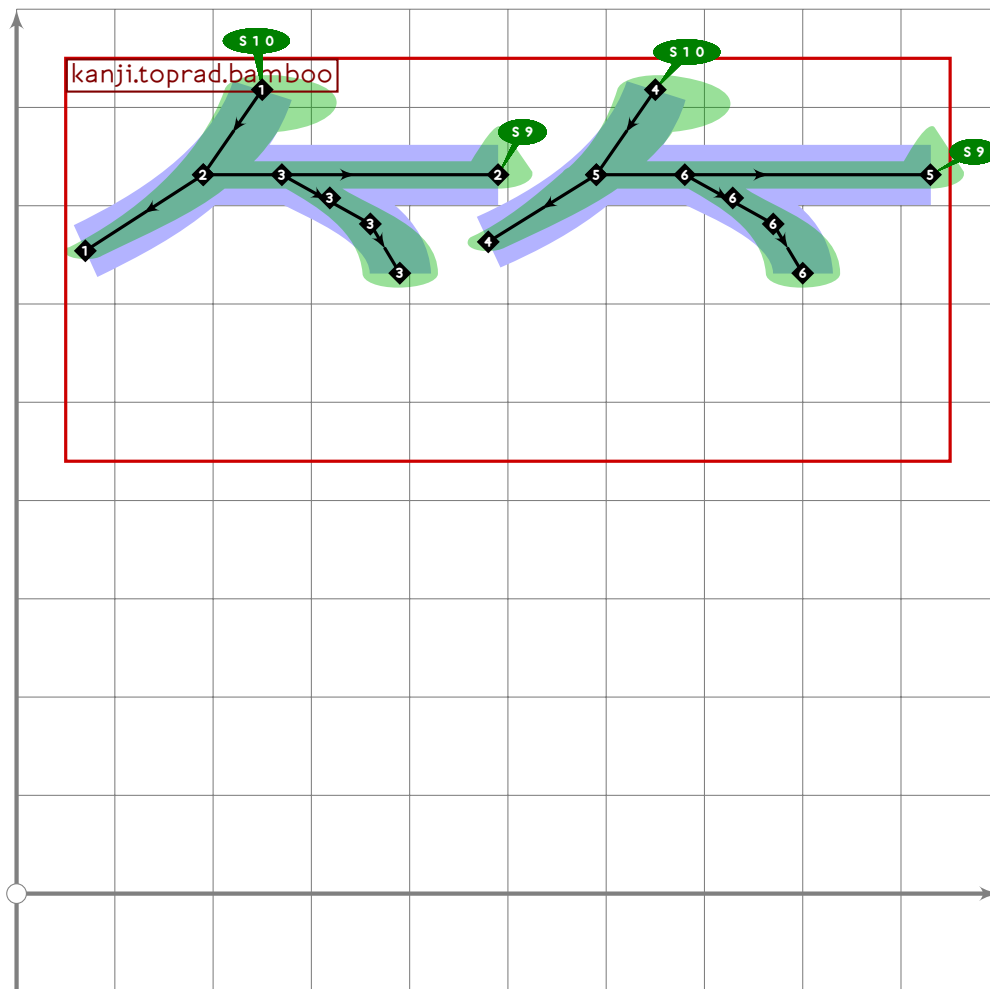
```

U+2EAD
tsuku.uni2EAD



```
184 % Unicode calls it "spirit two"
185 begintsuglyph("uni2EAD";173);
186 tsu_xform(identity xscaled 0.5)(kanji.leftrad.showing);
187 tsu_render;
188 endtsuglyph;
189
```

2E

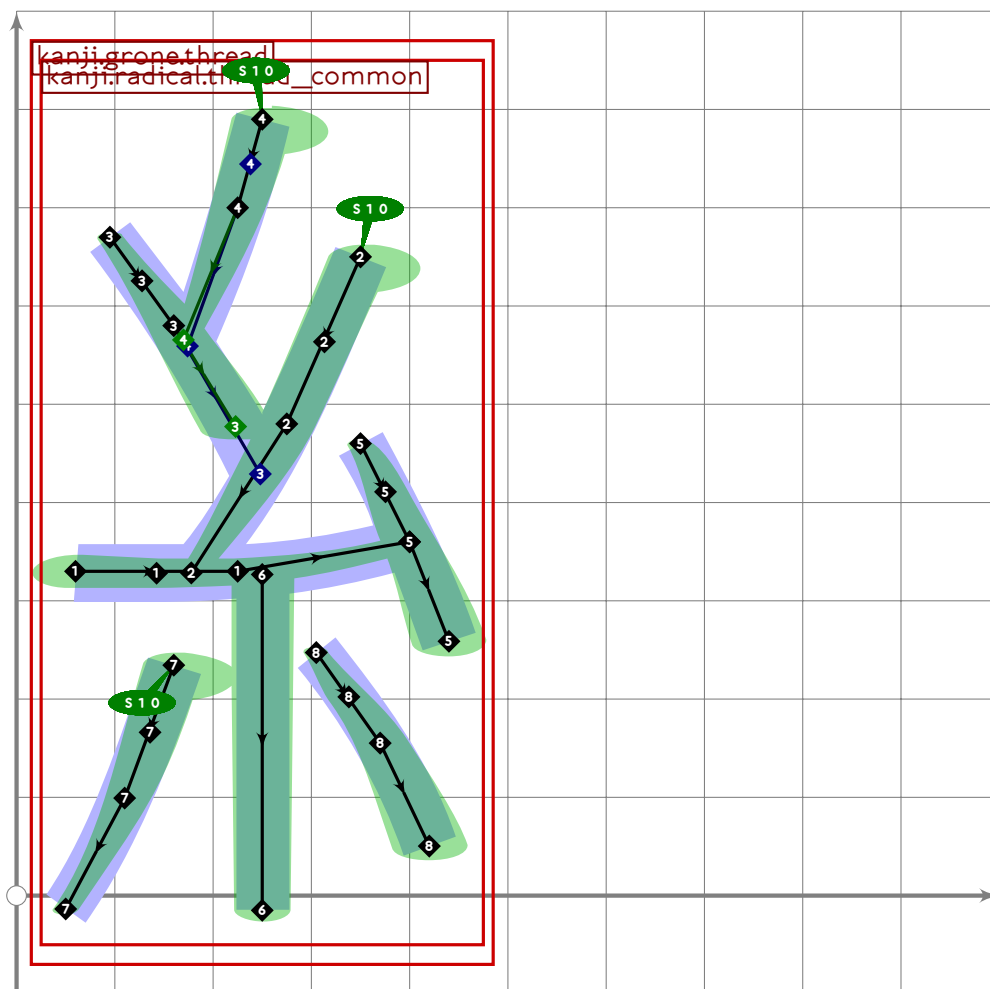


```

190 % "bamboo" top radical
191 begintsuglyph("uni2EAE";174);
192   build_kanji.tb(540,200)
193     (kanji.toprad.bamboo)
194   ();
195   tsu_render;
196 endtsuglyph;
197

```

U+2EAF
tsuku.uni2EAF

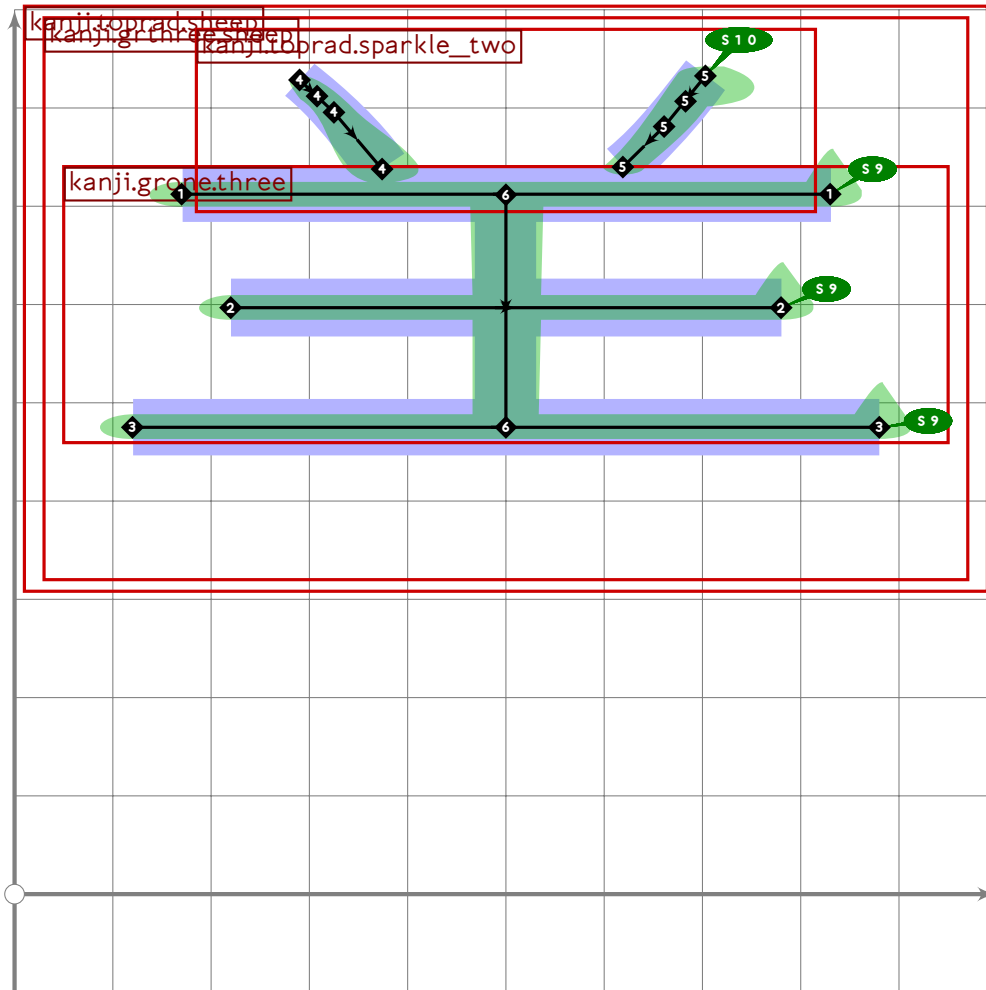


```

198 % Unicode calls it "silk"
199 begintsuglyph("uni2EAF";175);
200   tsu_xform(identity xscaled 0.5)
201     (build_kanji.lift_skirt(300,60)(kanji.grone.thread));
202   tsu_render;
203 endtsuglyph;
204

```

2E

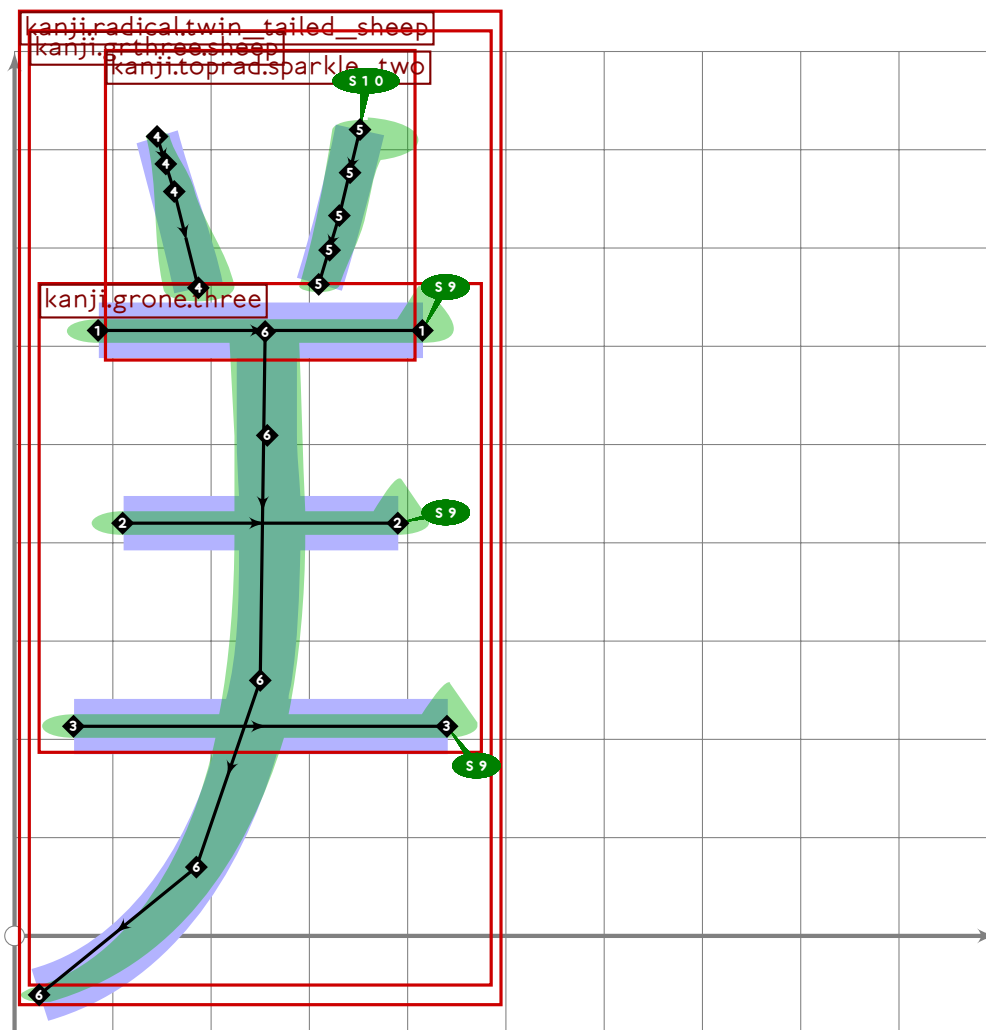


```

205 % "sheep" (ram) top radical
206 beginsuglyph("uni2EB7",183);
207   build_kanji.tb(420,200)
208     (kanji.toprad.sheep)
209   ();
210   tsu_render;
211 endsuglyph;
212

```

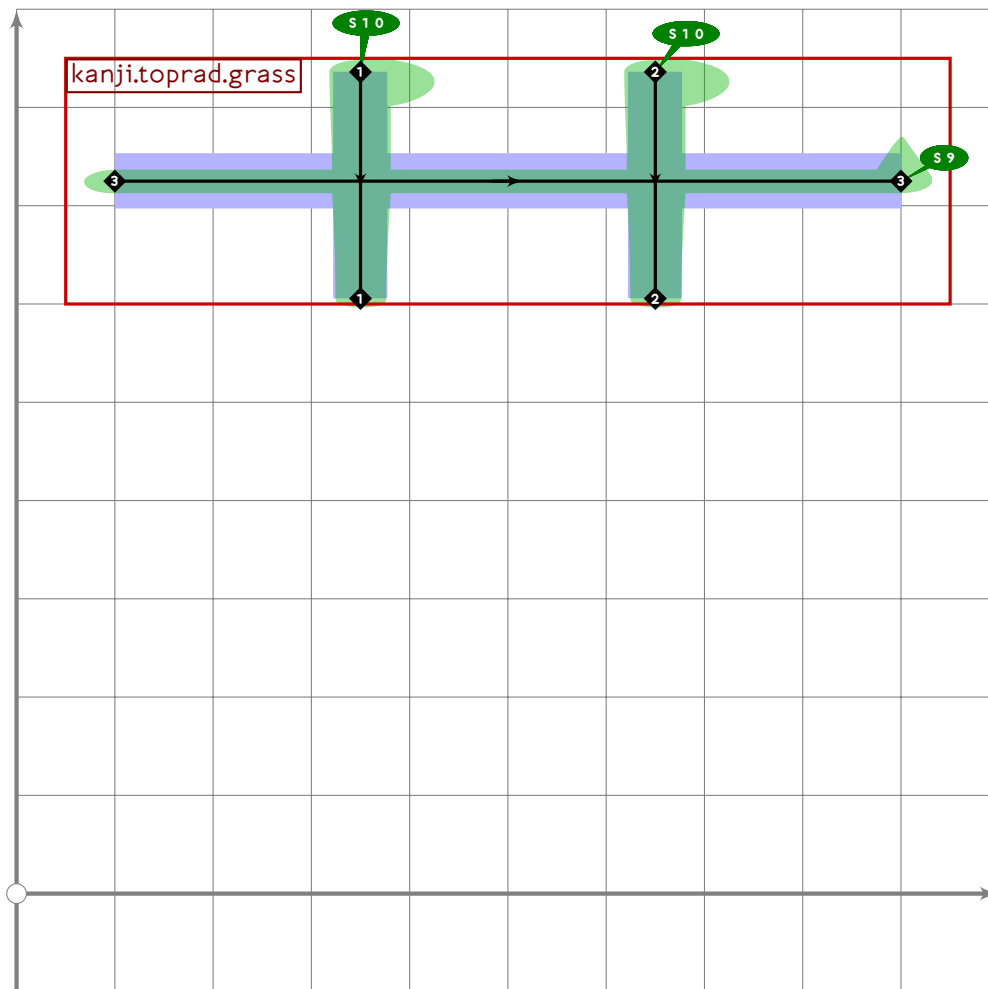
U+2EB8
tsuku.uni2EB8



```

213 % "sheep" left-side radical
214 begintsuglyph('uni2EB8';184);
215   tsu_xform(identity xscaled 0.5)
216     (kanji.radical.twin_tailed_sheep;
217       pop_stroke);
218   tsu_render;
219 endtsuglyph;
220

```

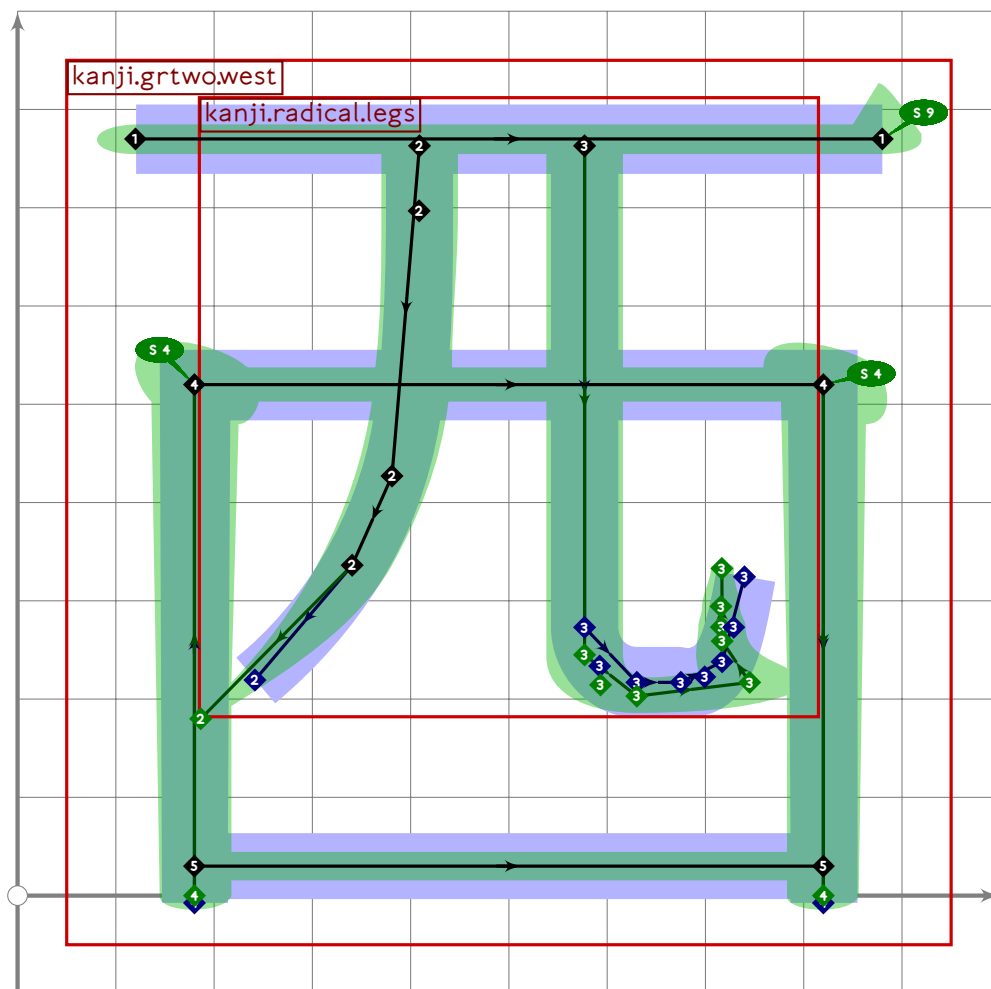


```

221 % Japanese form of "grass" top radical
222 begintsuglyph("uni2EBE";190);
223   build_kanji.tb(600,0)
224     (kanji.toprad.grass)
225   ();
226   tsu_render;
227 endtsuglyph;
228

```

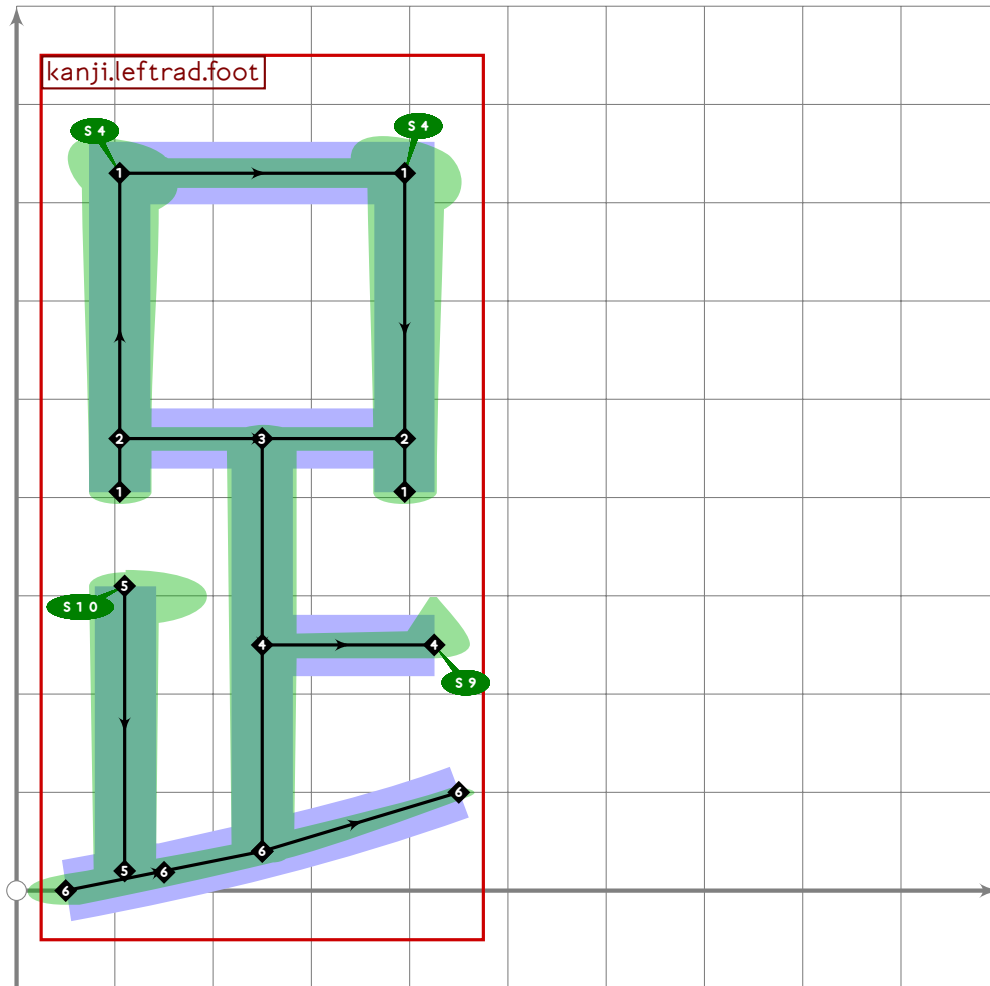
U+2EC4
tsuku.uni2EC4



```

229 % sai/nishi "West" or "Spain"
230 begintuglyph("uni2EC4";196);
231   kanji.grtwo.west;
232   tsu_render;
233 endtuglyph;
234

```

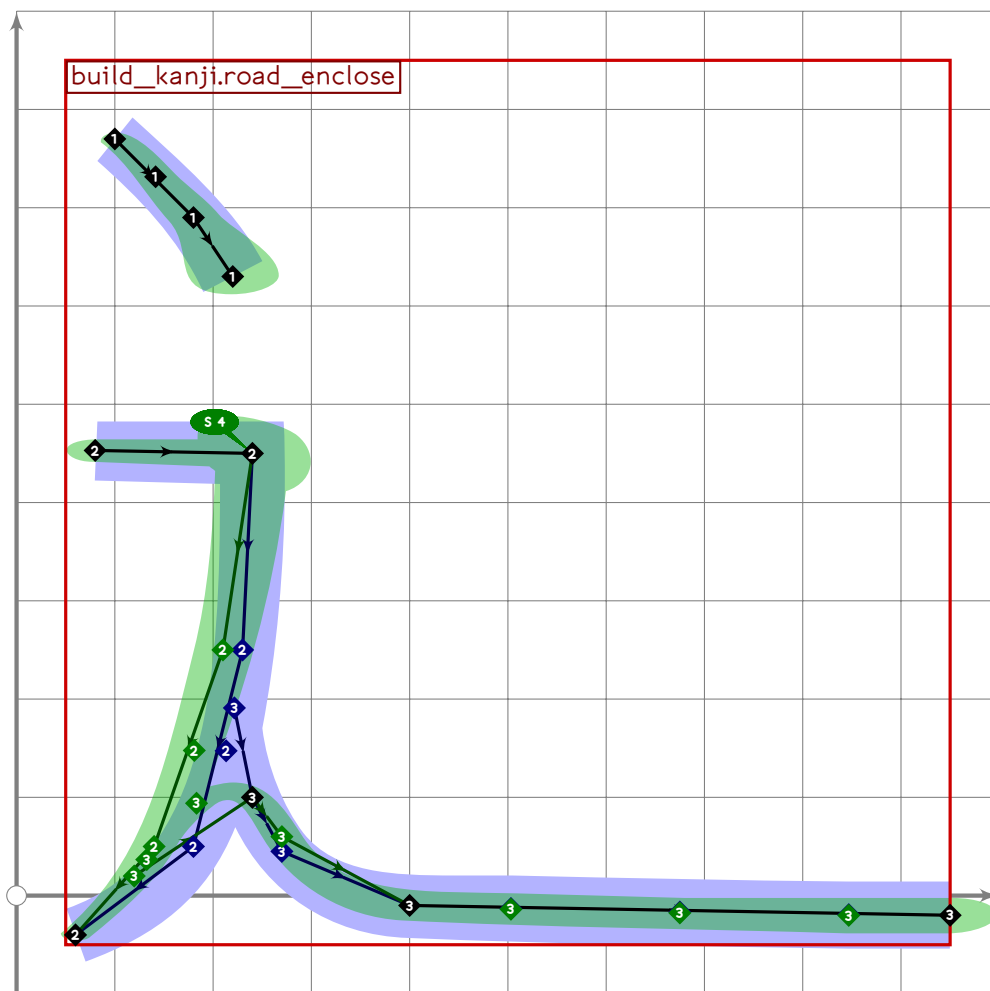


```

235 % foot radical
236 begintsuglyph("uni2ECA";202);
237 tsu_xform(identity xscaled 0.5)(kanji.leftrad.foot);
238 tsu_render;
239 endtsuglyph;
240

```

U+2ECC
tsuku.uni2ECC

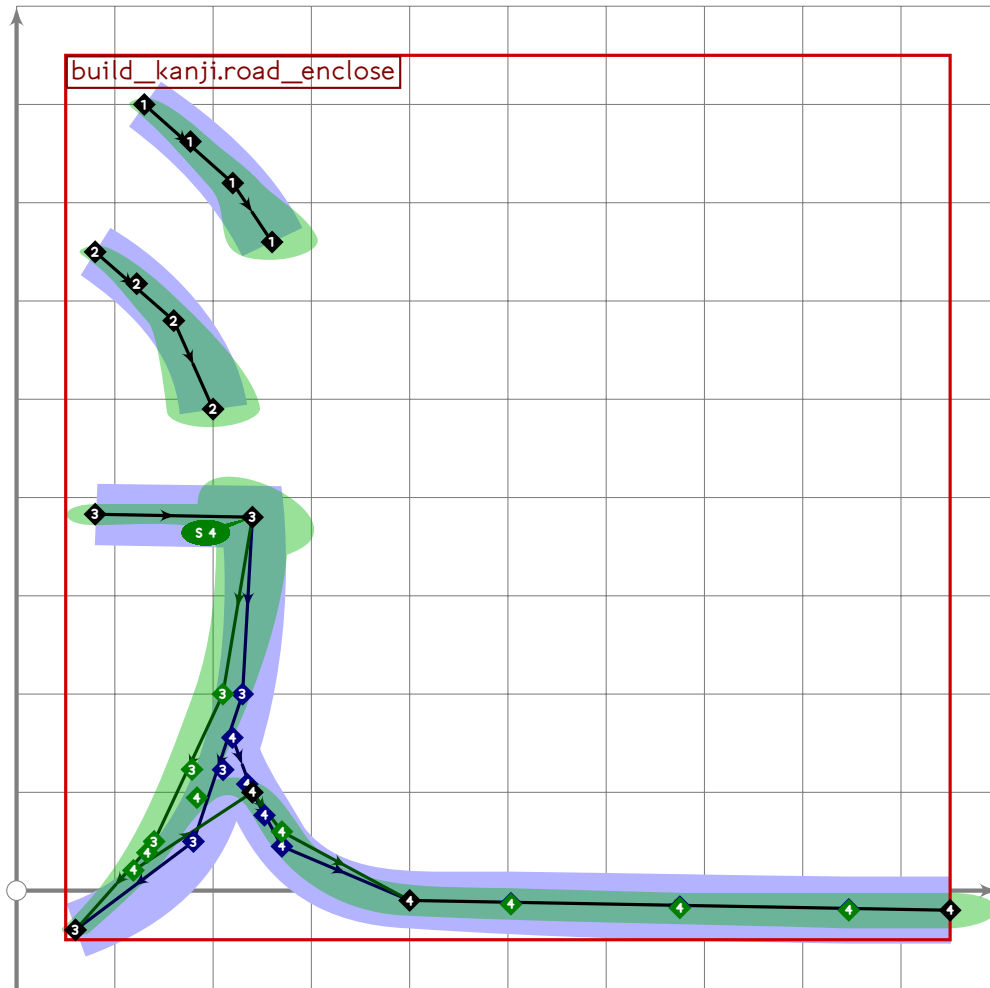


```

241 % Unicode calls it "simplified walk"
242 begintsuglyph("uni2ECC";204);
243   build_kanji.road_enclose();
244   tsu_render;
245 endtsuglyph;
246

```

2E

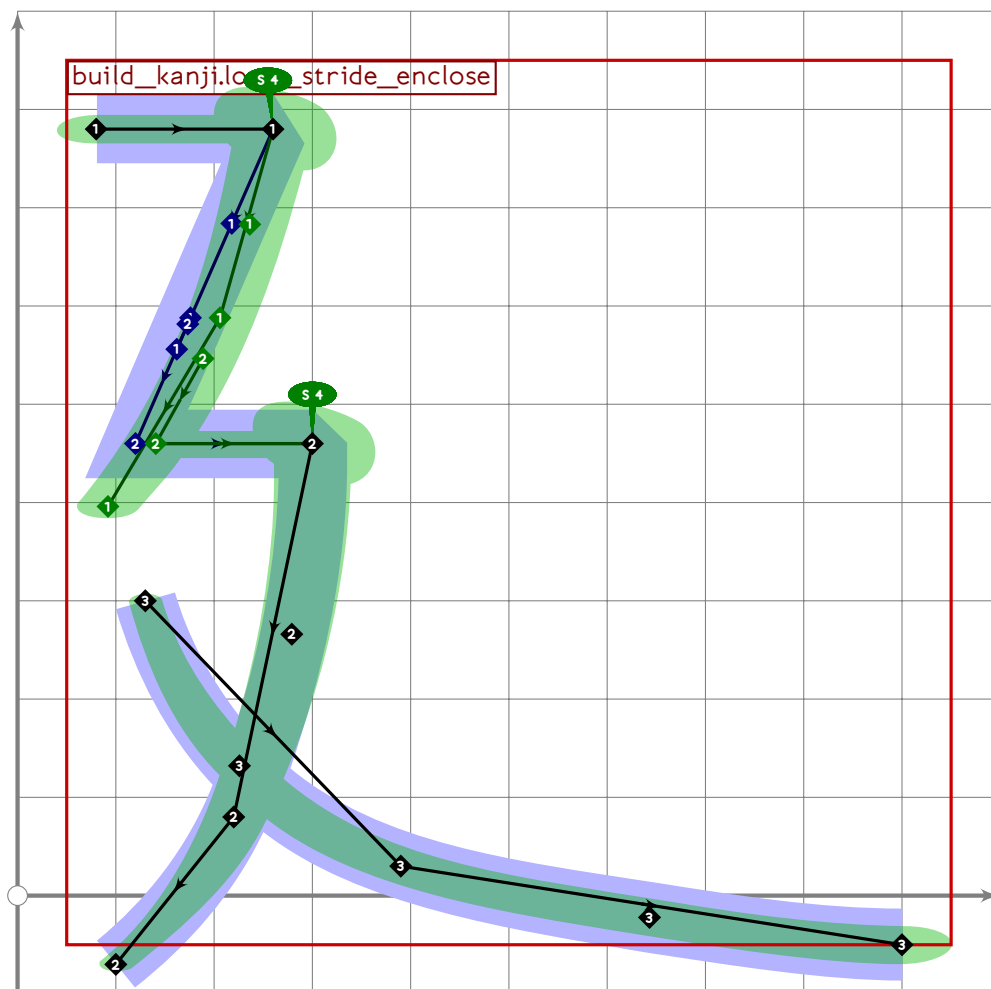


```

247 % Unicode calls it "walk one"
248 begintsuglyph("uni2ECD";205);
249   extra_tick;
250   build_kanji.road_enclose();
251   tsu_render;
252 endtsuglyph;
253

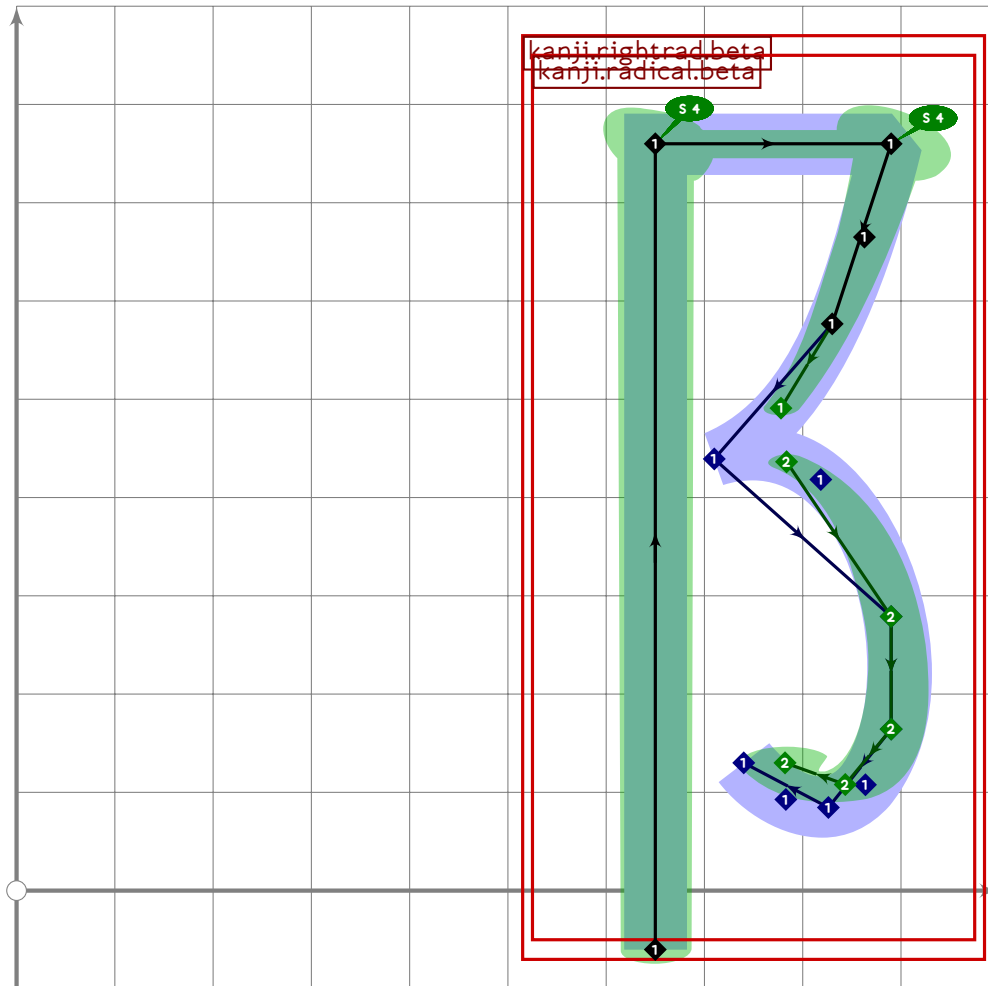
```

U+2ECE
tsuku.uni2ECE



```
254 % Unicode calls it "walk two"  
255 begintsuglyph("uni2ECE";206);  
256   build_kanji.long_stride_enclose();  
257   tsu_render;  
258 endtsuglyph;  
259
```

2E

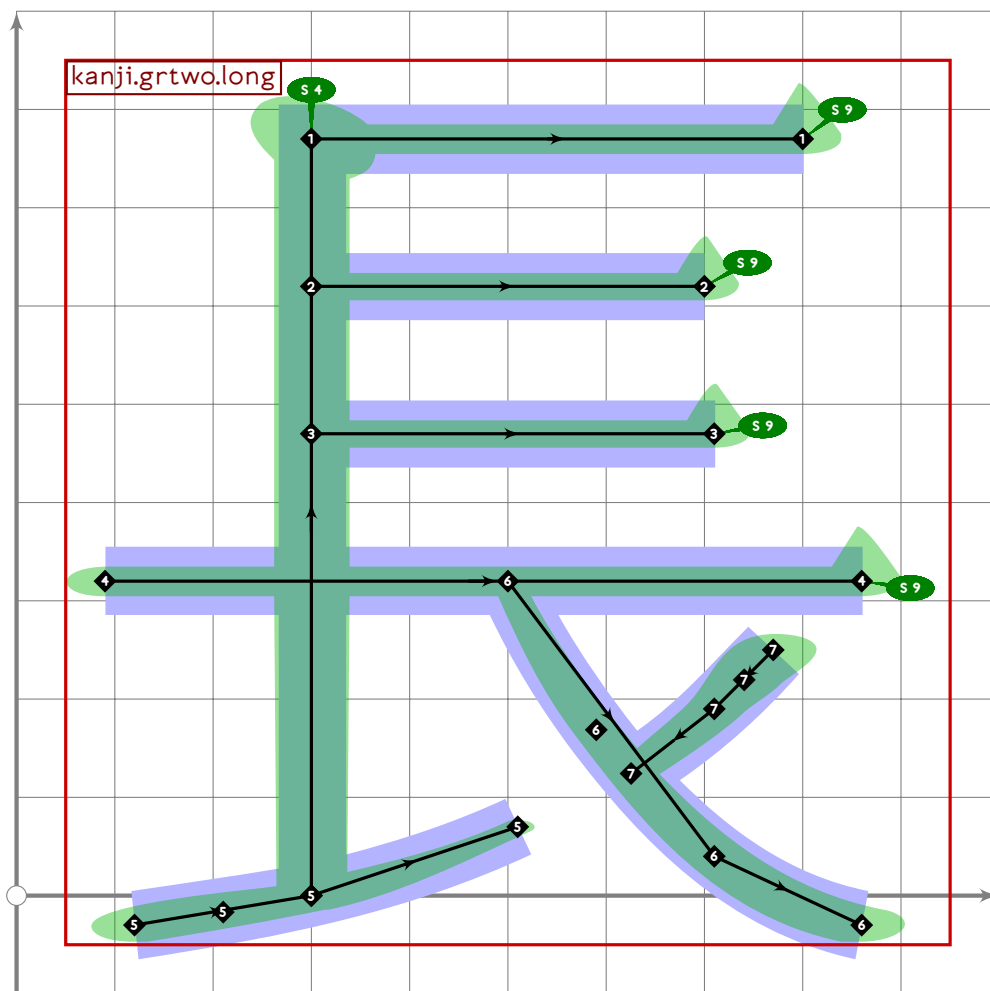


```

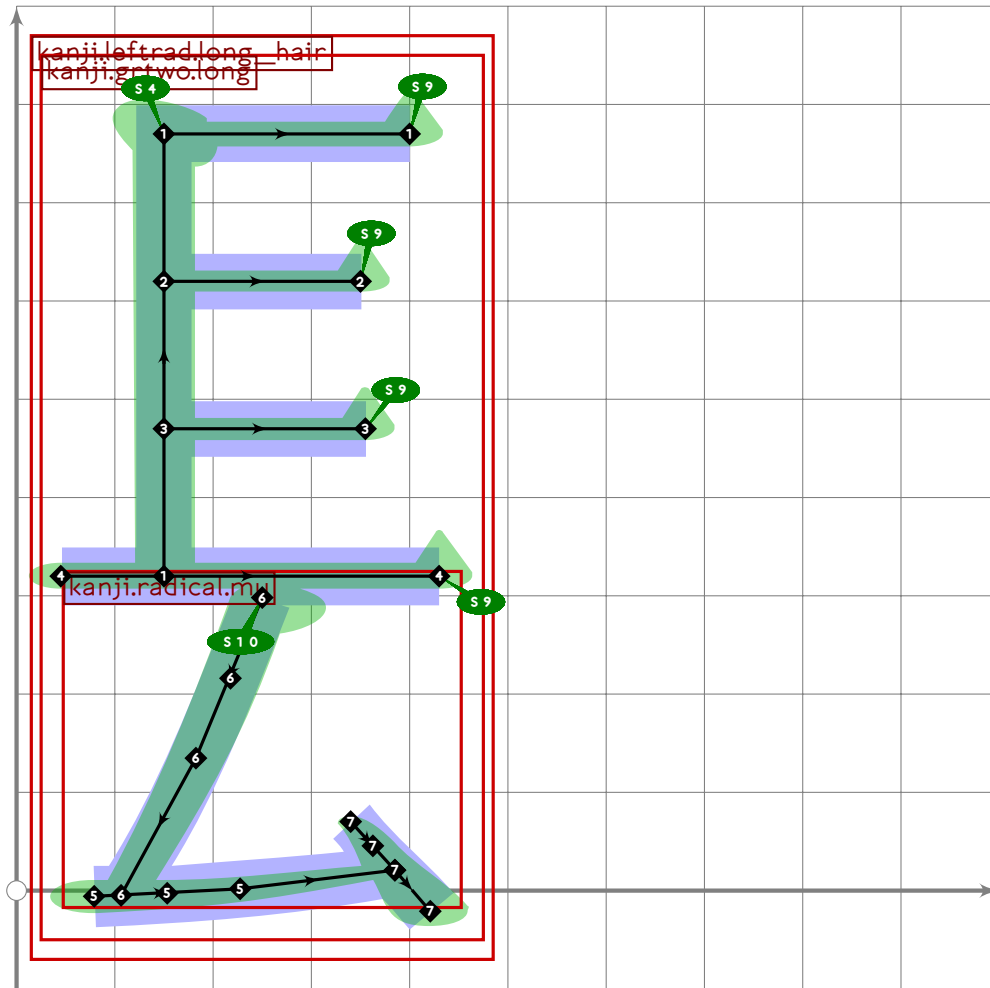
260 % Unicode calls it "city"
261 begintsuglyph("uni2ECF";207);
262   tsu_xform(identity xscaled 0.5 shifted (500,0))
263     (kanji.rightrad.beta);
264   tsu_render;
265 endtsuglyph;
266

```

U+2ED1
tsuku.uni2ED1



```
267 % chou/naga "long"  
268 begintsuglyph("uni2ED1",209);  
269   kanji.grtwo.long;  
270   tsu_render;  
271 endtsuglyph;  
272
```

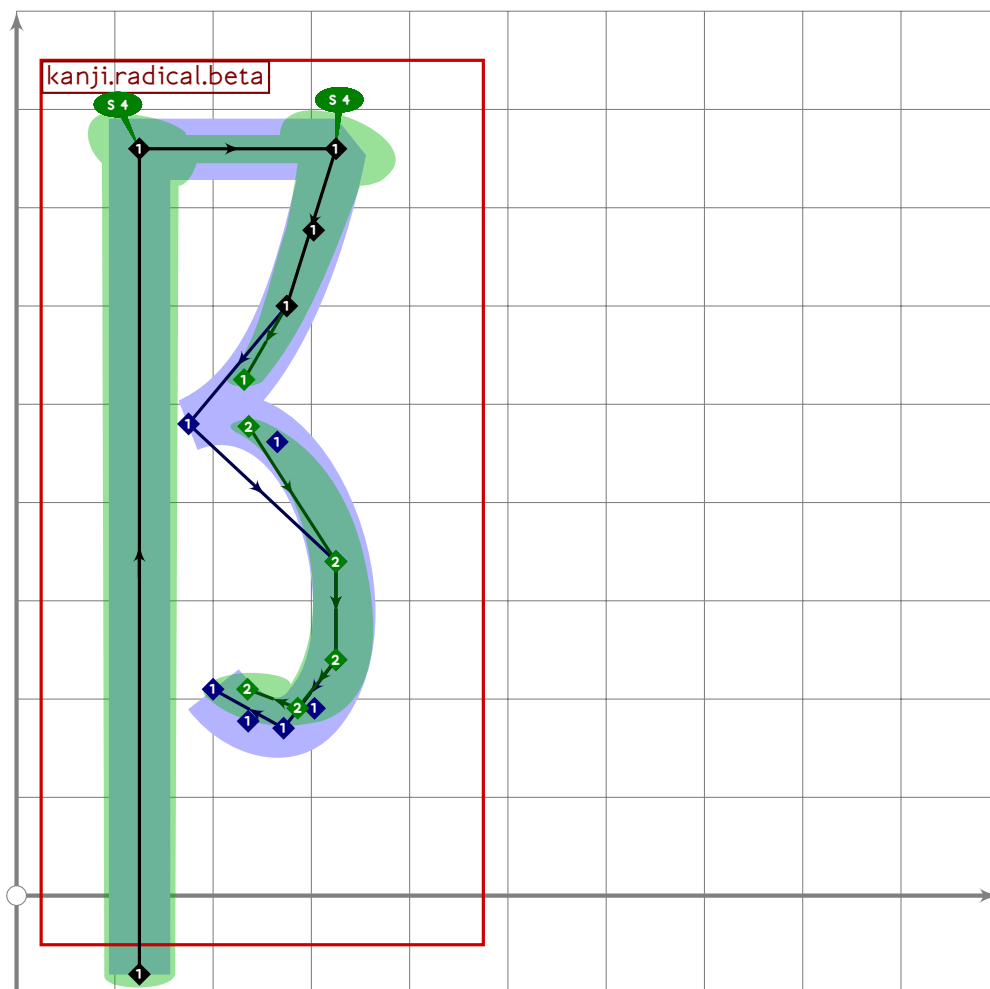


```

273 % Unicode calls it "long two"
274 beginsuglyph("uni2ED2";210);
275   tsu_xform(identity xscaled 0.5)(kanji.leftrad.long_hair);
276   tsu_render;
277 endsuglyph;
278

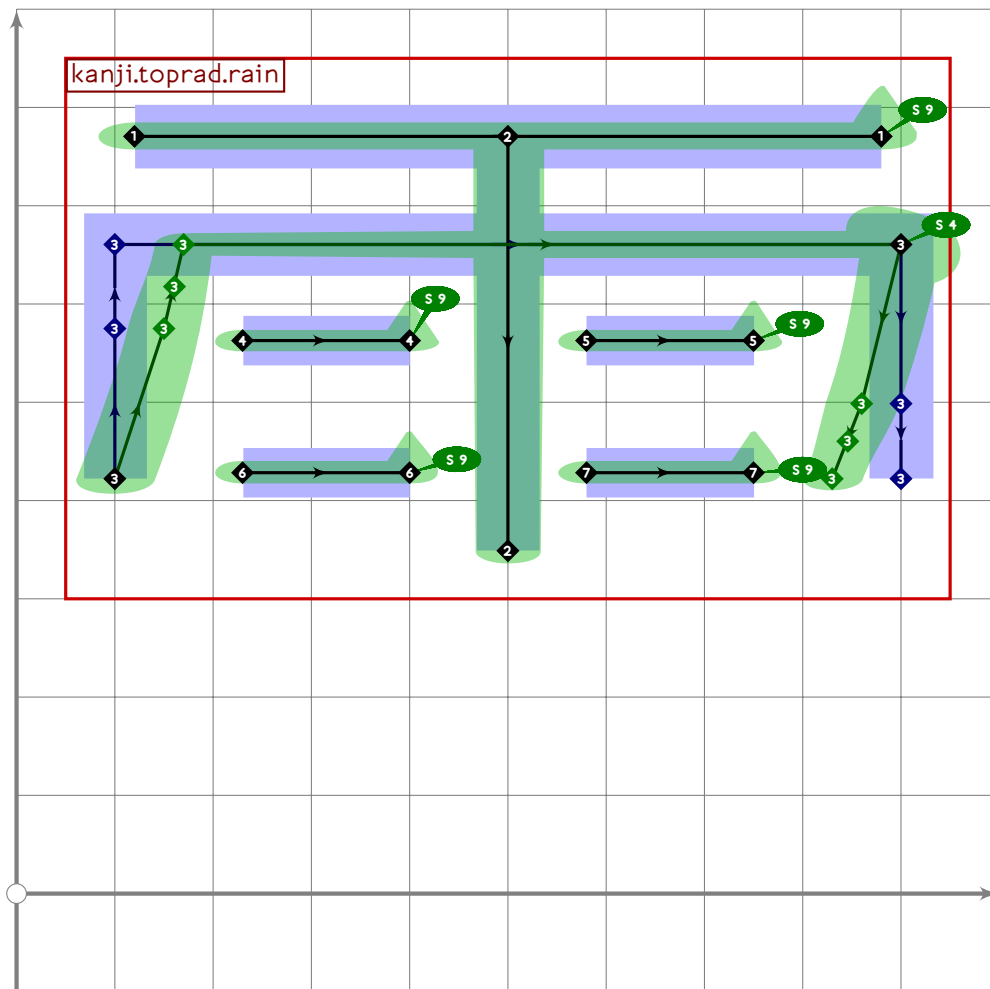
```

U+2ED6
tsuku.uni2ED6



```
279 % Unicode calls it "mound two"
280 begint Suglyph("uni2ED6";214);
281   tsu_xform(identity xscaled 0.5)
282     (kanji.radical.beta);
283   tsu_render;
284 endtsuglyph;
285
```

2E

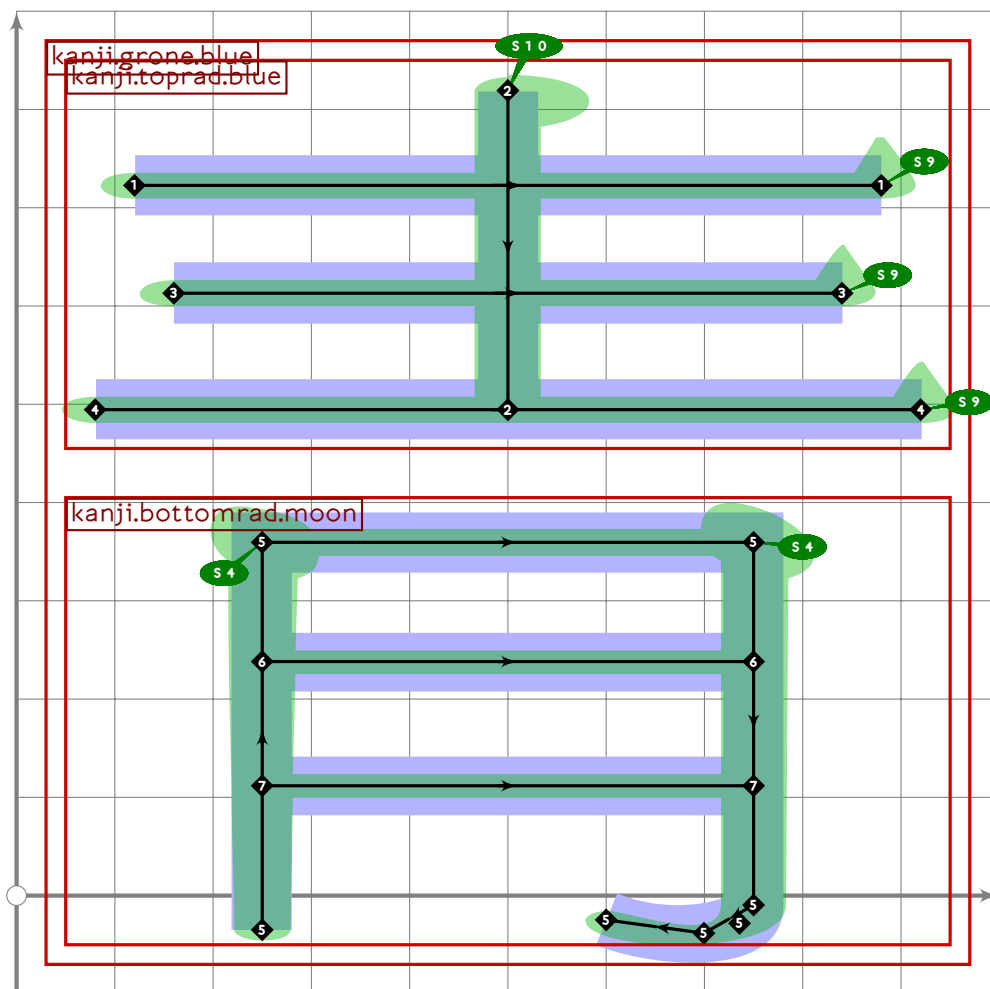


```

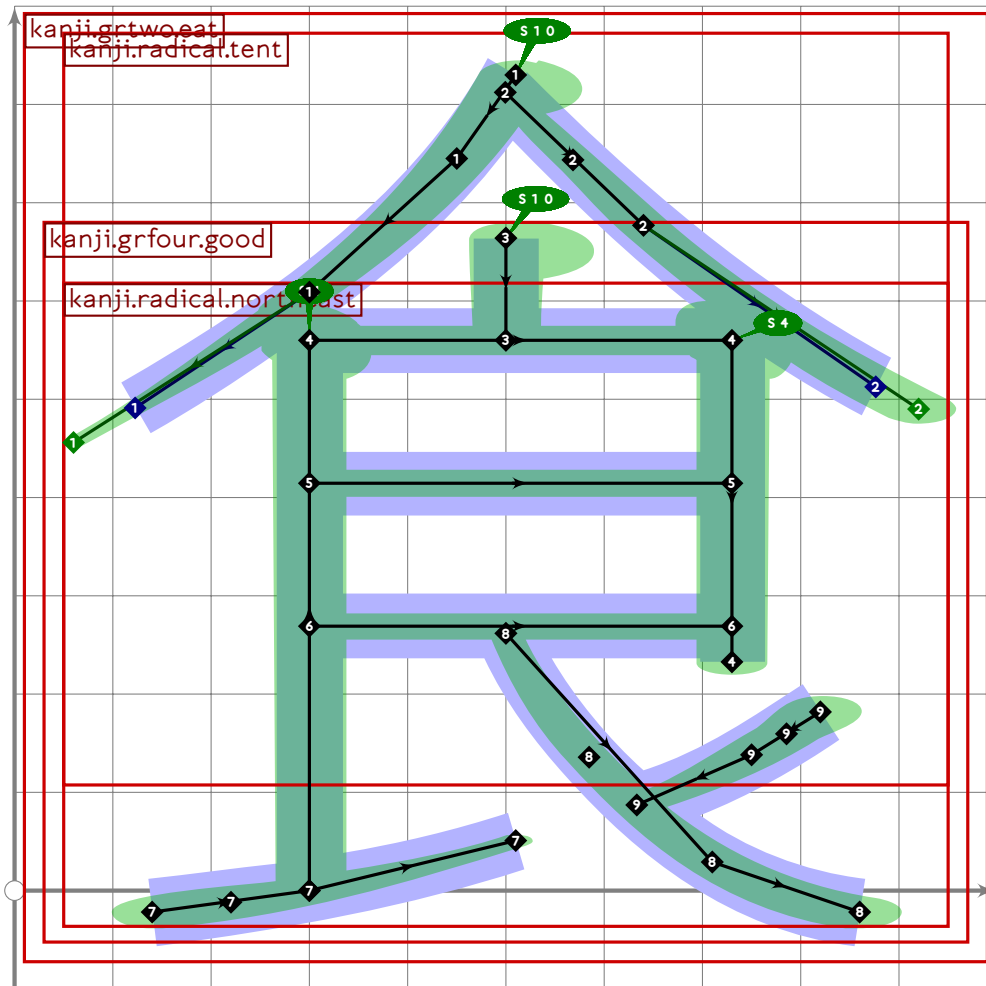
286 % "rain" top radical
287 begintsuglyph("uni2ED7";215);
288   build_kanji.tb(300,0)
289     (kanji.toprad.rain)
290   ();
291   tsu_render;
292 endtsuglyph;
293

```

U+2ED8
tsuku.uni2ED8



```
294 % ao "blue"  
295 begintsuglyph("uni2ED8";216);  
296   kanji.grone.blue;  
297   tsu_render;  
298 endtsuglyph;  
299
```

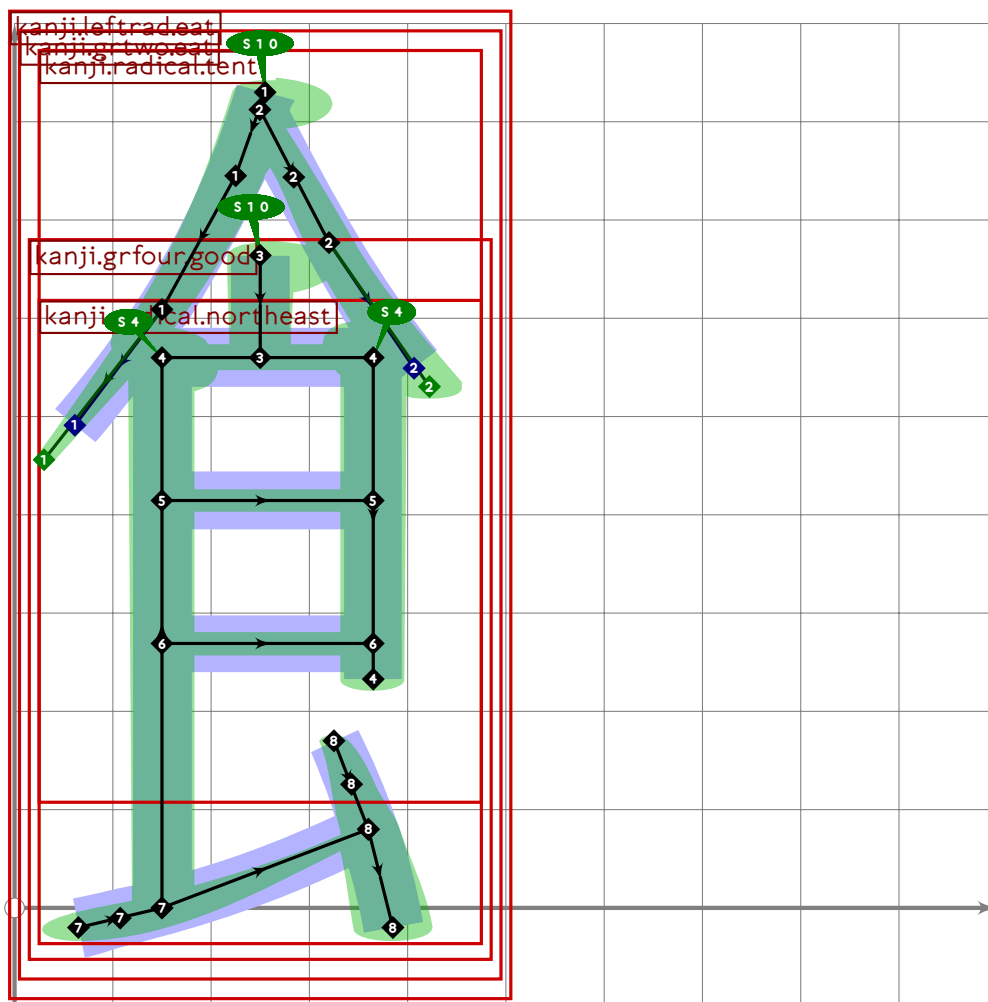


```

300 % shoku/ta "eat"
301 begintsuglyph("uni2EDD";221);
302   kanji.grtwo.eat;
303   tsu_render;
304 endtsuglyph;
305

```

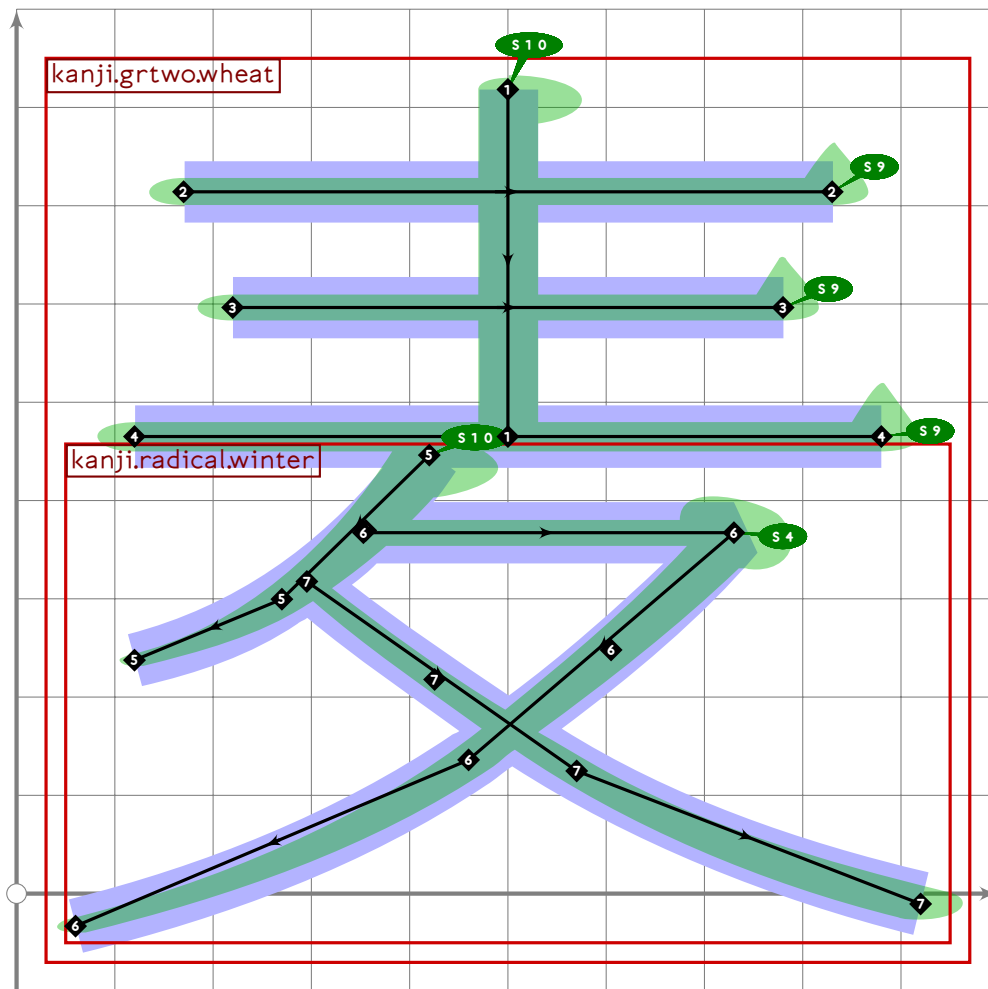
U+2EDF
tsuku.uni2EDF



```

306 % simplified "eat" for use as radical
307 begintsuglyph("uni2EDF";223);
308   tsu_xform(identity xscaled 0.5)(kanji.leftrad.eat);
309   tsu_render;
310 endtsuglyph;
311

```

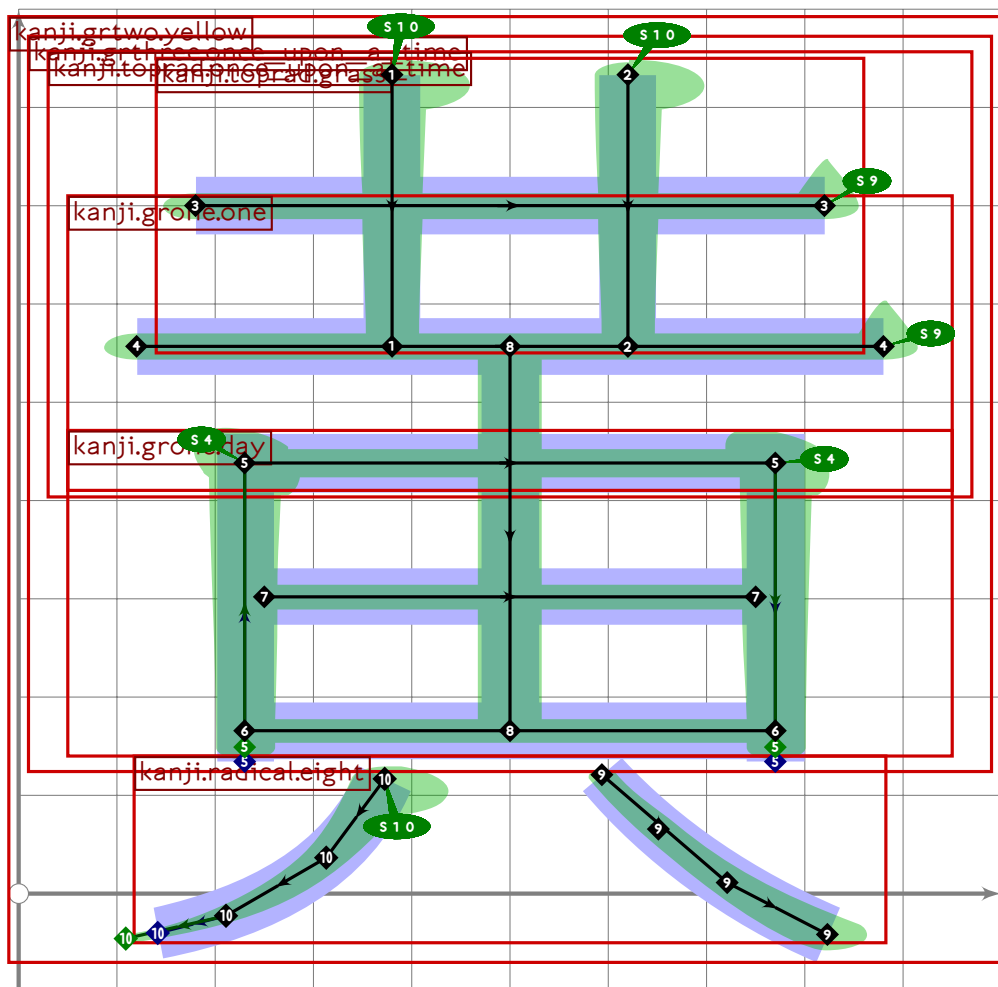



```

312 % baku/mugi "wheat"
313 begintsuglyph("uni2EE8",232);
314   kanji.grtwo.wheat;
315   tsu_render;
316 endtsuglyph;
317

```

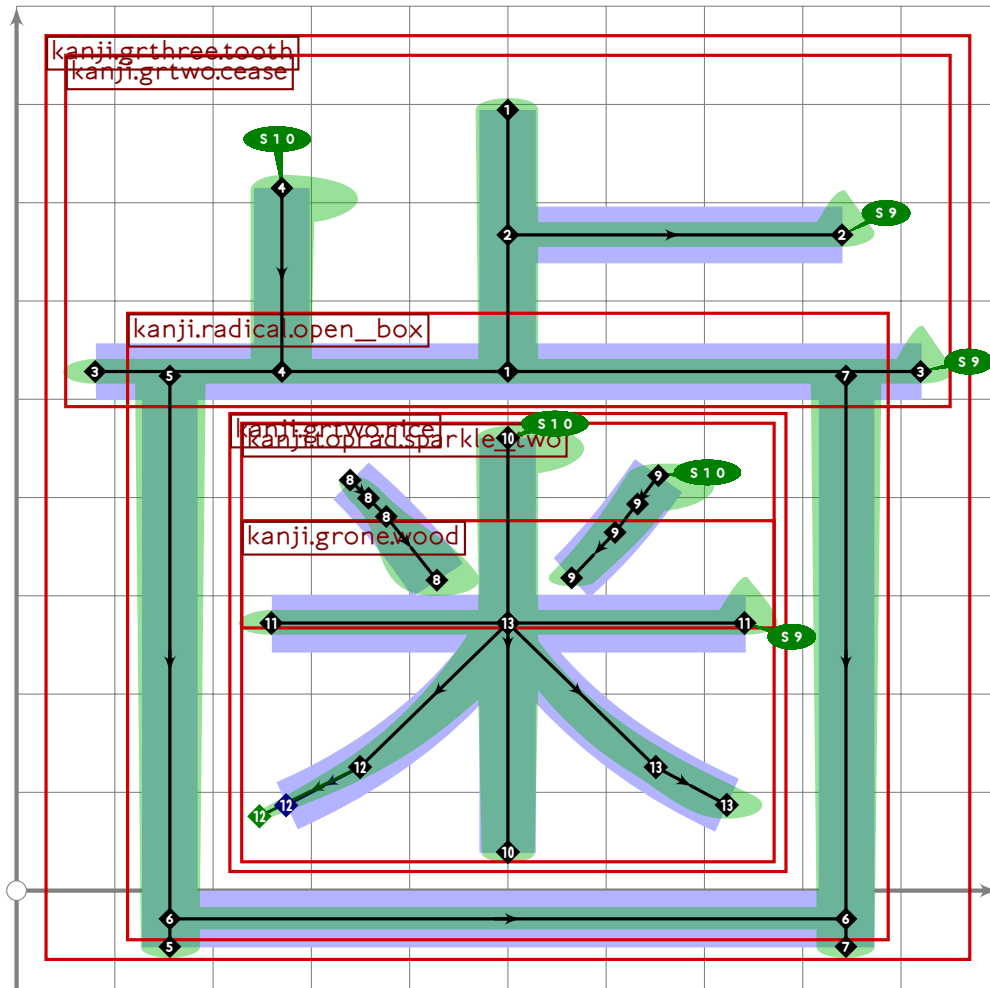
U+2EE9
tsuku.uni2EE9



```

318 % kou/ki "yellow"
319 begintsuglyph("uni2EE9",233);
320   kanji.grtwo.yellow;
321   tsu_render;
322 endtsuglyph;
323

```



```

324 % shi/ha "tooth"
325 begintsuglyph("uni2EED";237);
326   kanji.grthree.tooth;
327   tsu_render;
328 endtsuglyph;
329
330
331
332 endfont;
333
334

```

tsuku-2f.mp

```
1 %
2 % Unicode page 2F (Radicals and IDCs) for Tsukurimashou
3 % Copyright (C) 2011, 2012, 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---

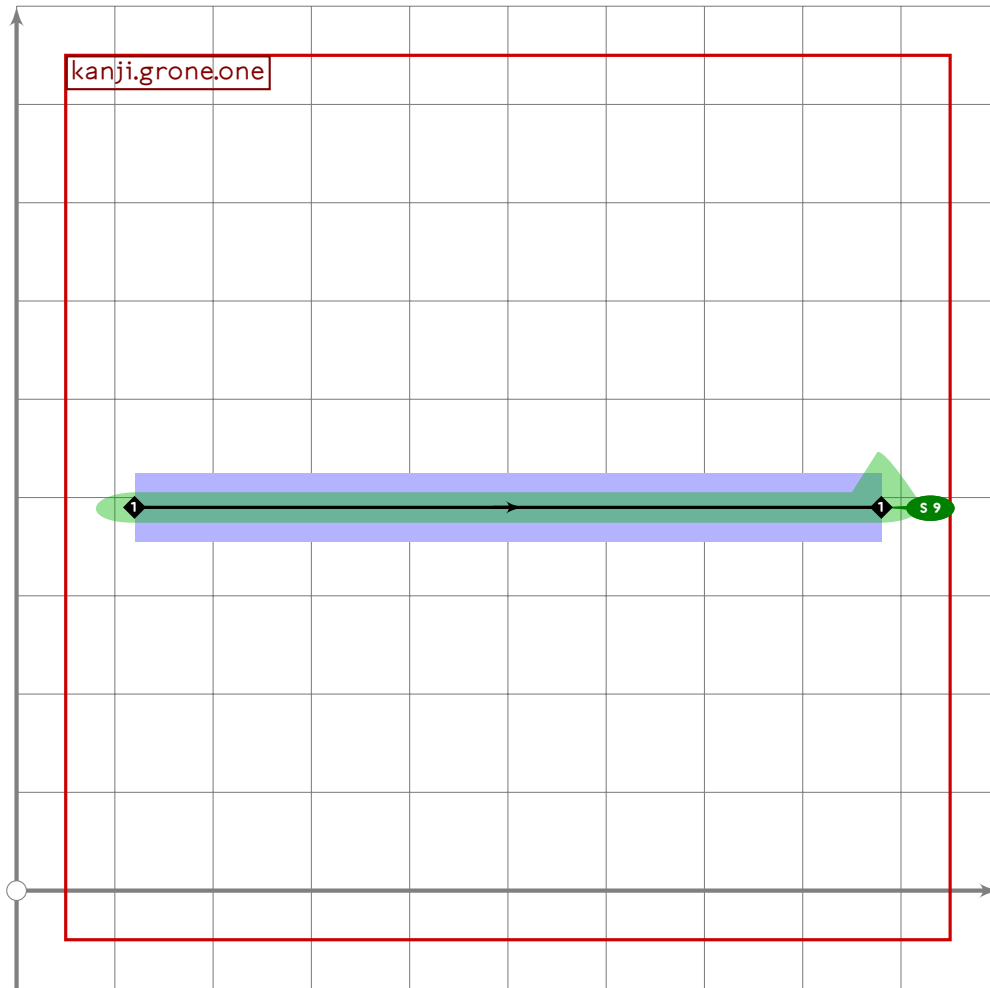

32
33 beginfont
34
35 % AUTODEPS
36 input bkencl.mp;
37 input bottomrad.mp;
38 input buildkanji.mp;
39 input gradeeight.mp;
40 input gradefive.mp;
41 input gradefour.mp;
42 input gradenine.mp;
43 input gradeone.mp;
44 input gradesix.mp;
45 input gradethree.mp;
46 input gradetwo.mp;
47 input leftrad.mp;
48 input radical.mp;
49 input rightrad.mp;
50 input toprad.mp;
51
52 do_late_includes;
53
54 

---


55
```

Kangxi Radicals

```
56 % KANGXI RADICALS
57
```

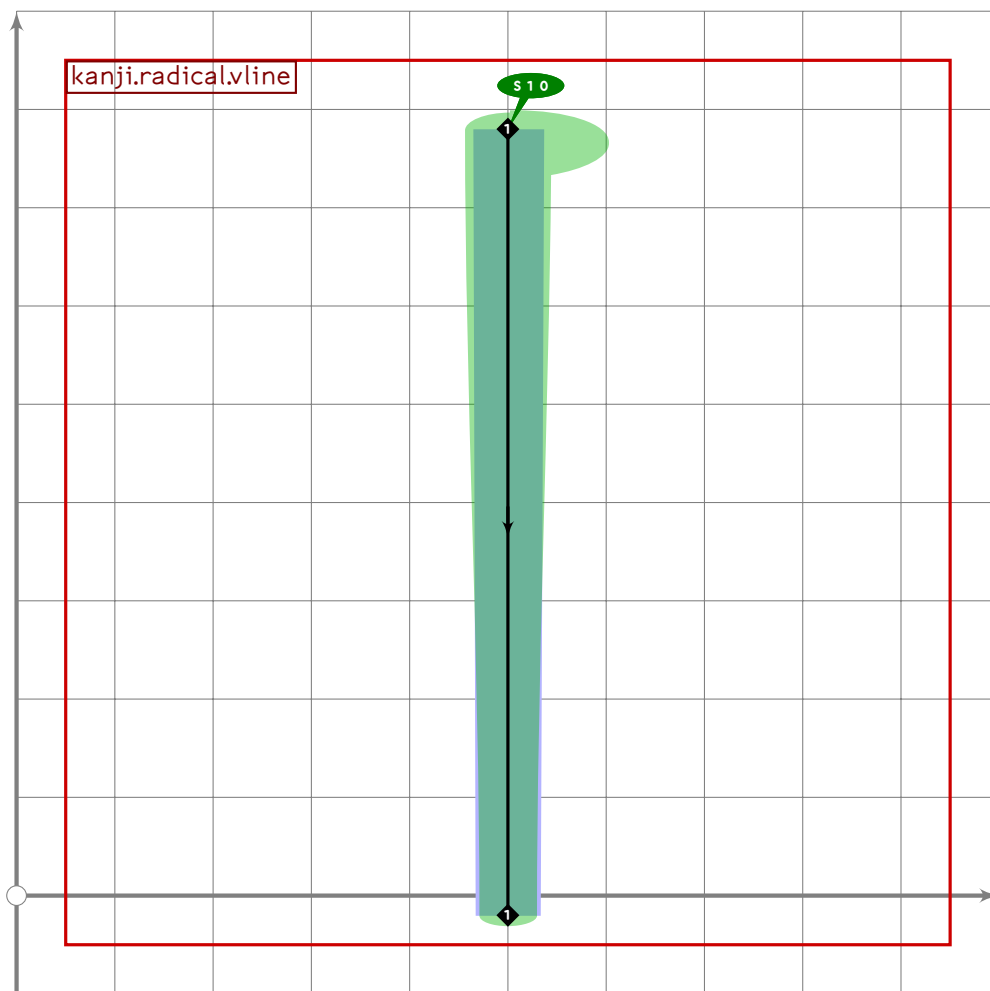


```

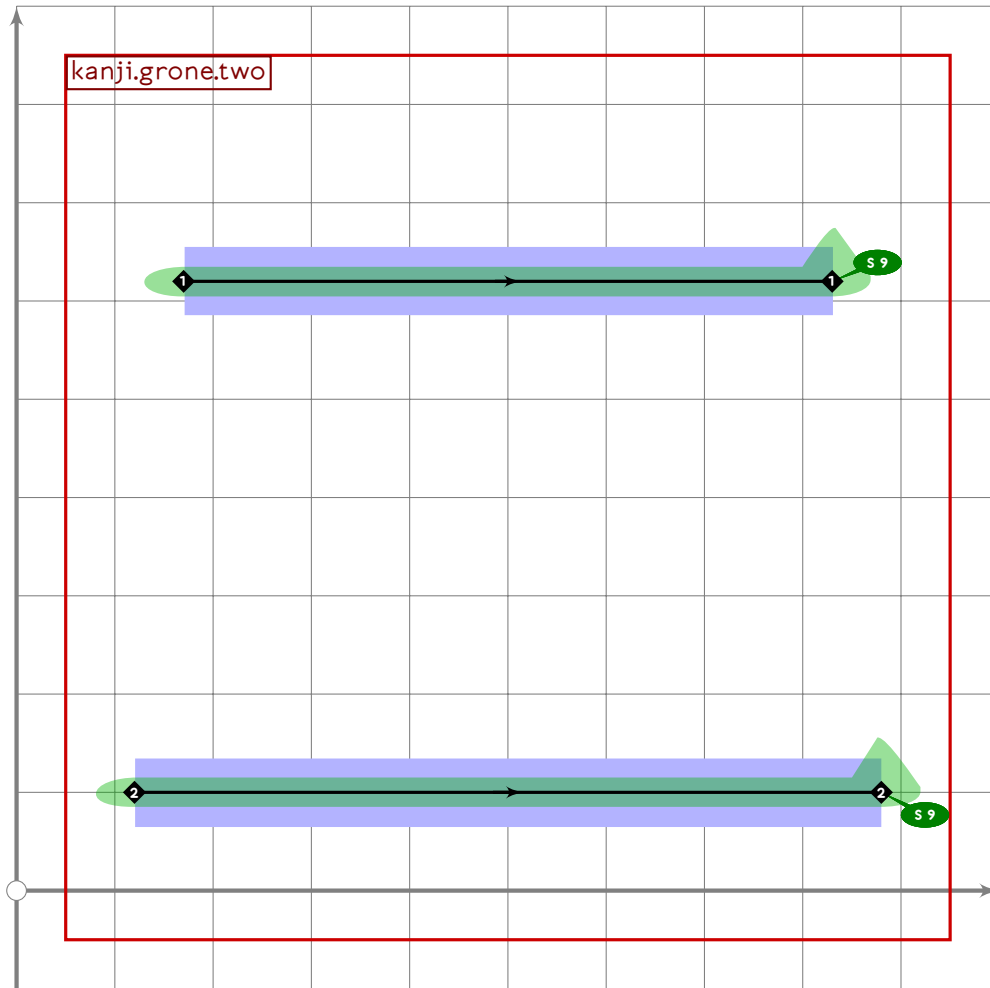
58 % ichi/hito "one"
59 begintsuglyph("uni2F00";0);
60   kanji.grone.one;
61   tsu_render;
62 endtsuglyph;
63

```

U+2F01
tsuku.uni2F01



```
64 % extra "vertical line"
65 begintsuglyph("uni2F01",1);
66   kanji.radical.vline;
67   tsu_render;
68 endtsuglyph;
69
```

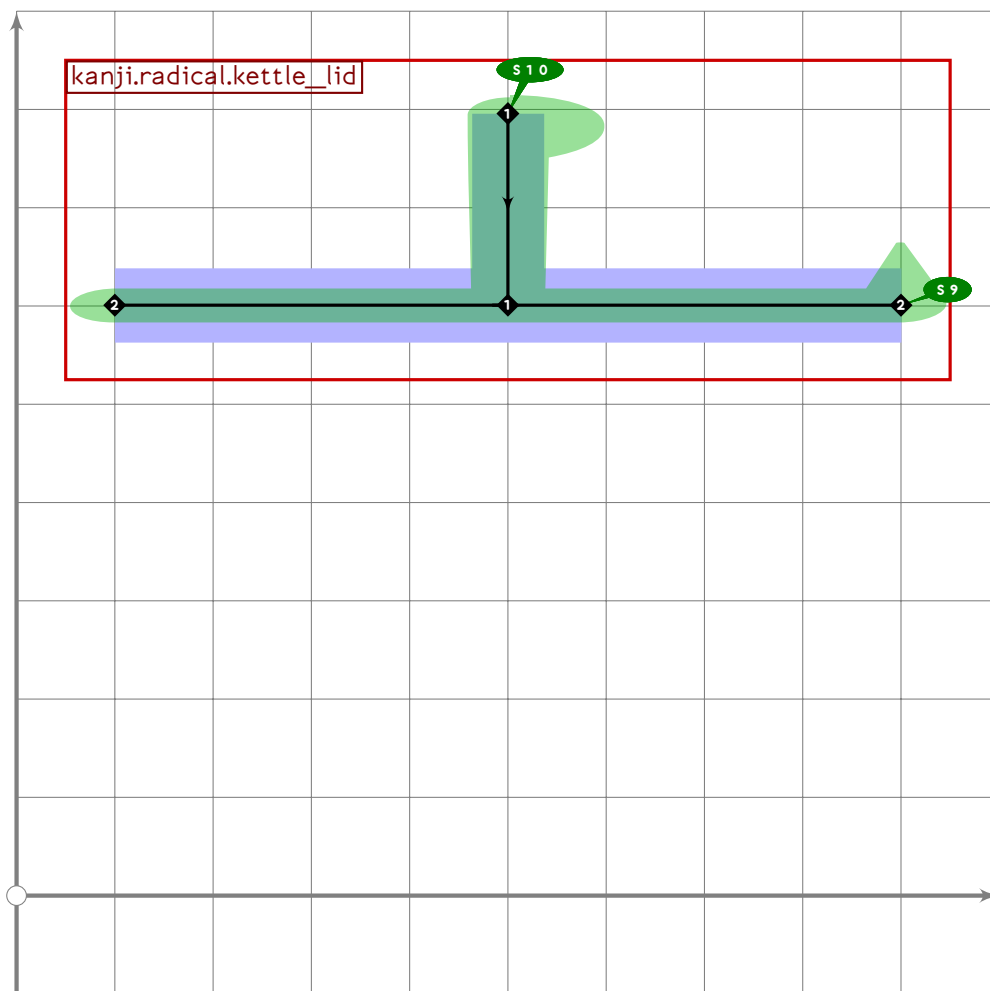


```

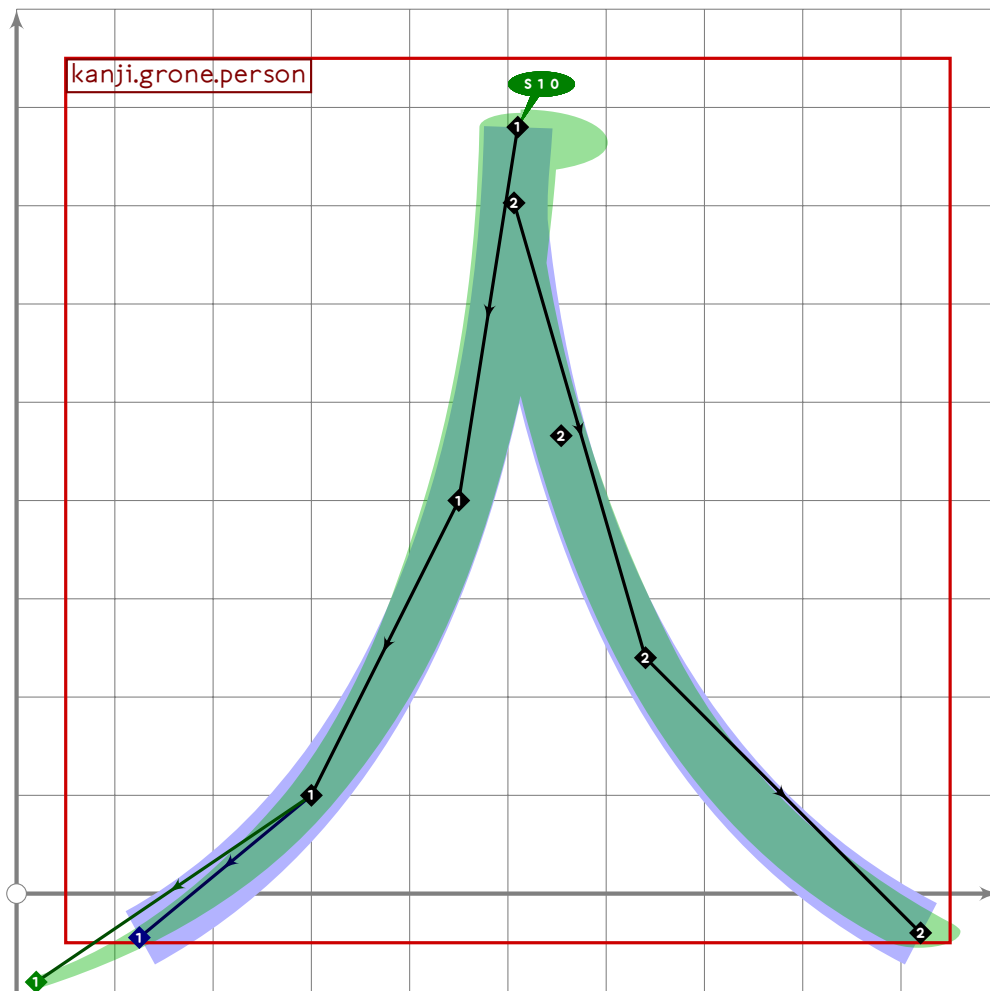
70 % ni/futa "two"
71 begintsuglyph("uni2F06",6);
72   kanji.grone.two;
73   tsu_render;
74 endtsuglyph;
75

```

U+2F07
tsuku.uni2F07

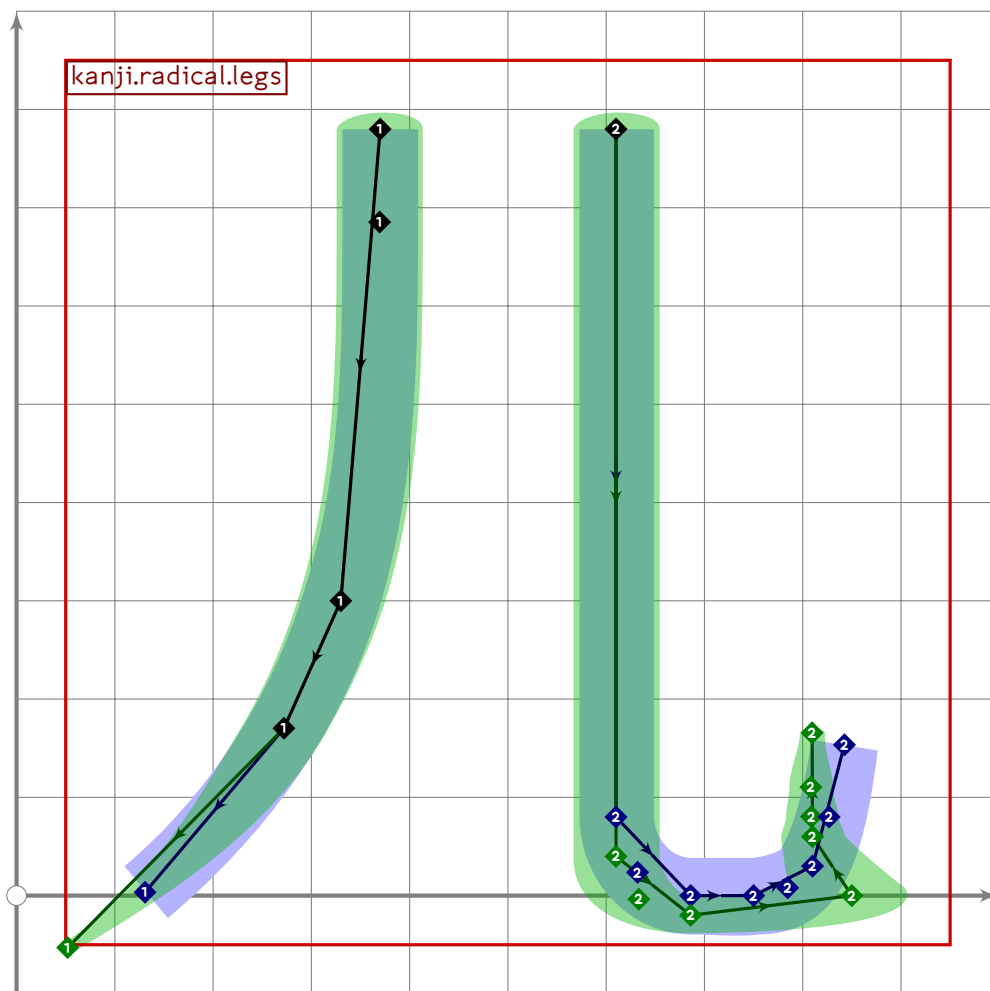


```
76 % "kettle lid radical"
77 begintsuglyph("uni2F07";7);
78   build_kanji.tb(500;50)
79     (kanji.radical.kettle_lid)
80   ();
81   tsu_render;
82 endtsuglyph;
83
```

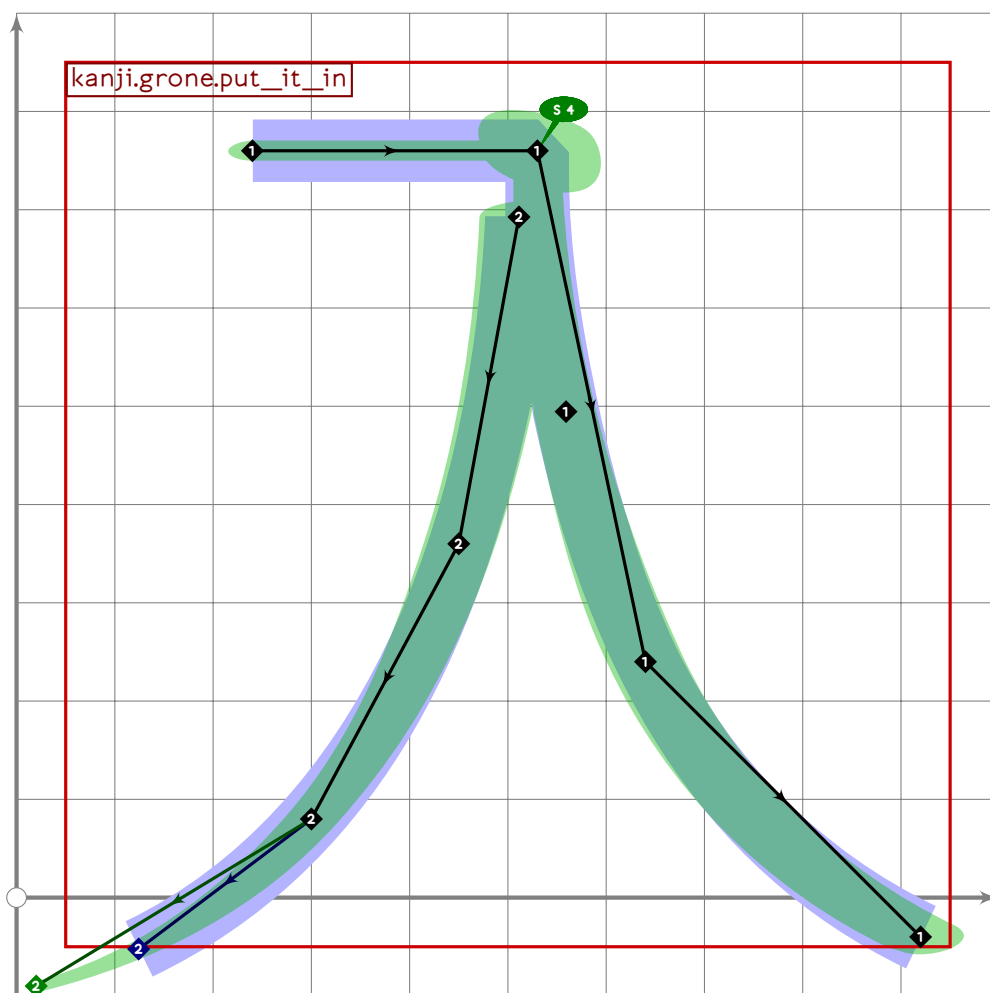



```
84 % hito/jin "person"  
85 begintsuglyph("uni2F08",8);  
86 kanji.grone.person;  
87 tsu_render;  
88 endtsuglyph;  
89
```

U+2F09
tsuku.uni2F09



```
90 % legs radical
91 begintsuglyph("uni2F09'9");
92   kanji.radical.legs;
93   tsu_render;
94 endtsuglyph;
95
```

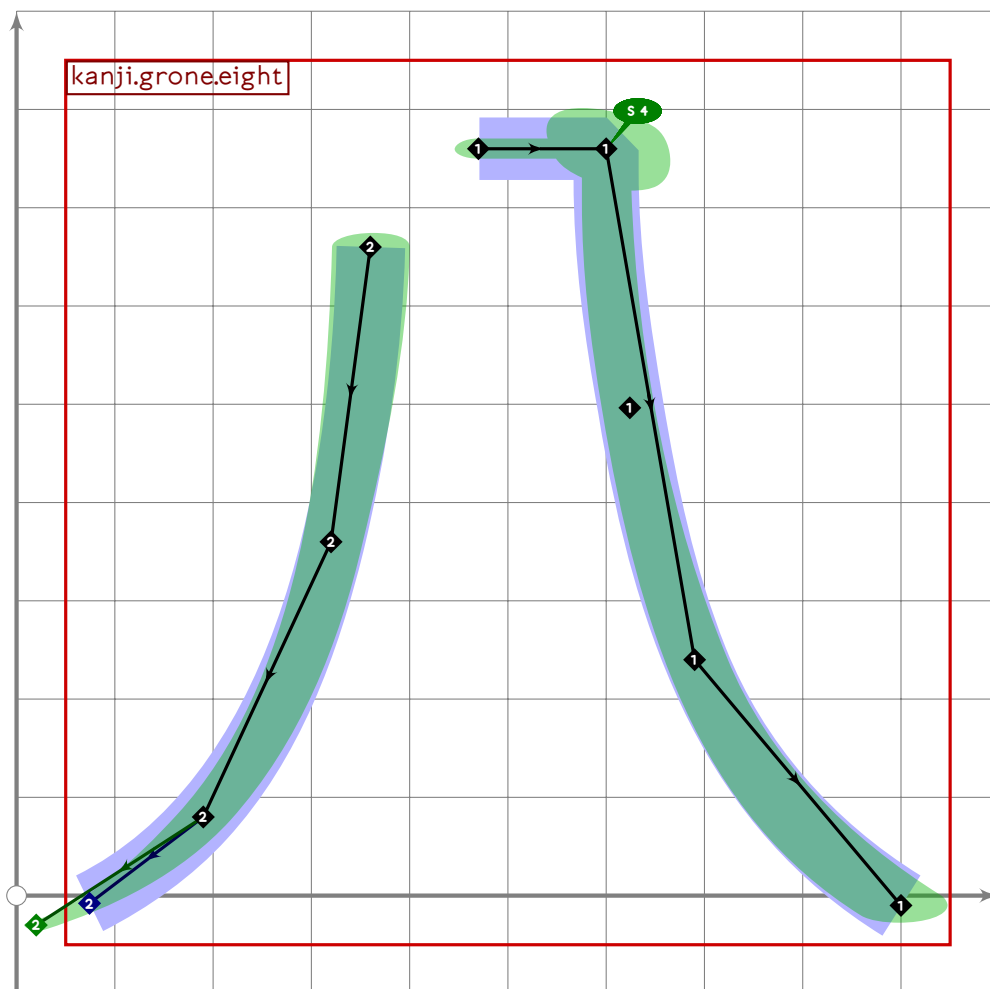


```

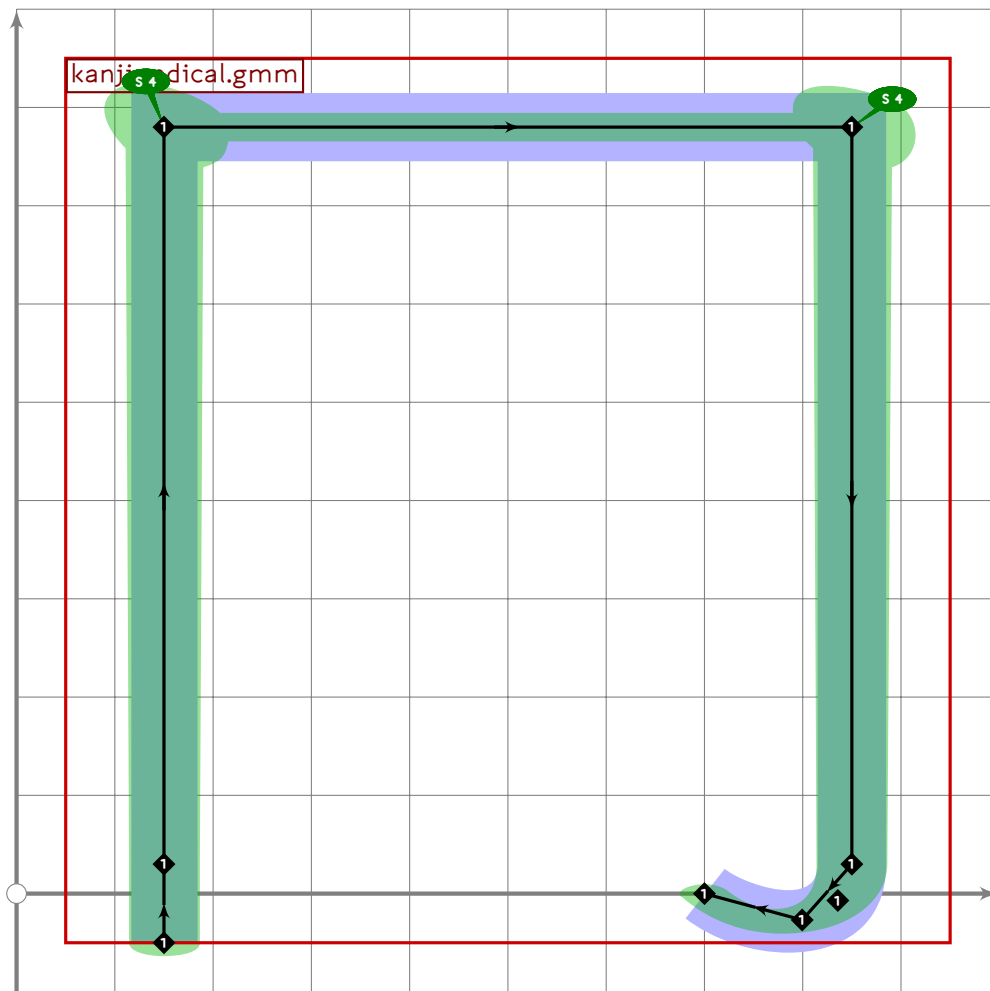
96 % hai/i "put it in"
97 beginsuglyph("uni2F0A",10);
98   kanji.grone.put_it_in;
99   tsu_render;
100 endsuglyph;
101

```

U+2F0B
tsuku.uni2F0B



```
102 % hachi/ya "eight"  
103 beginsuglyph("uni2F0B",11);  
104   kanji.grone.eight;  
105   tsu_render;  
106 endsuglyph;  
107
```

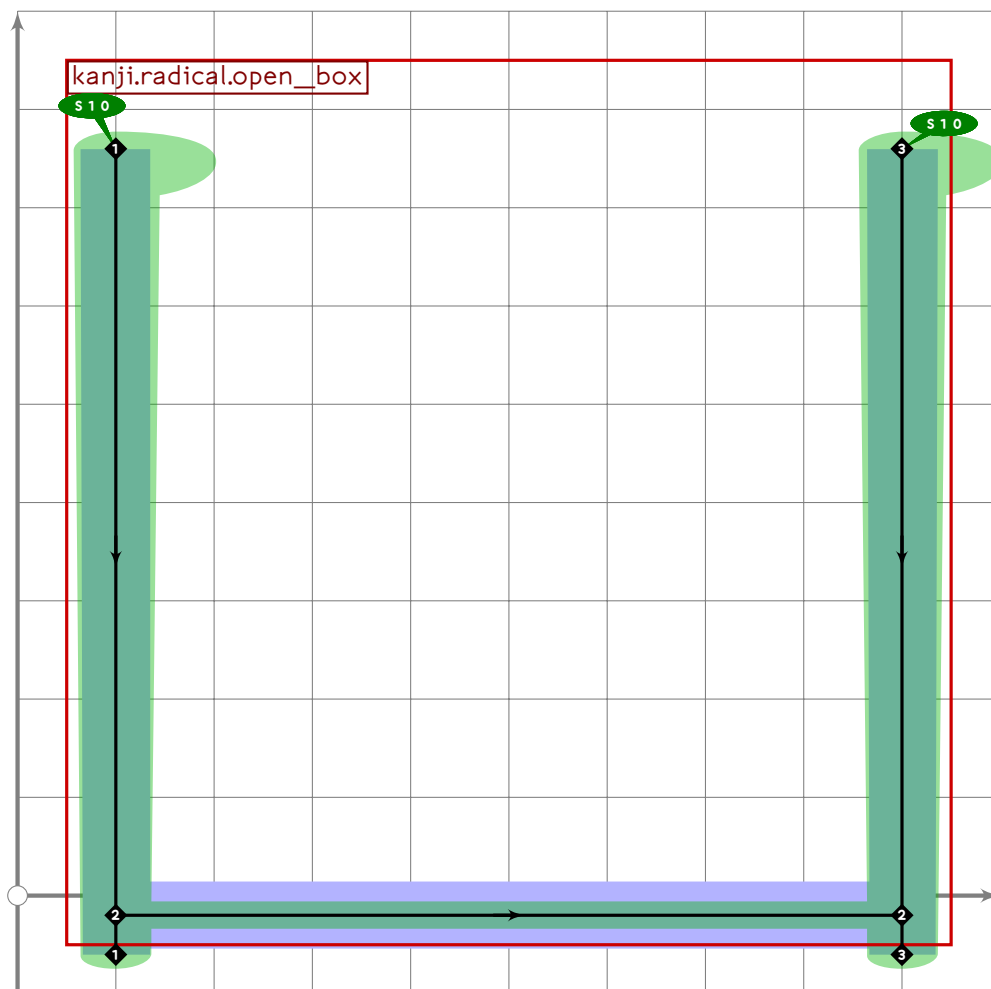


```

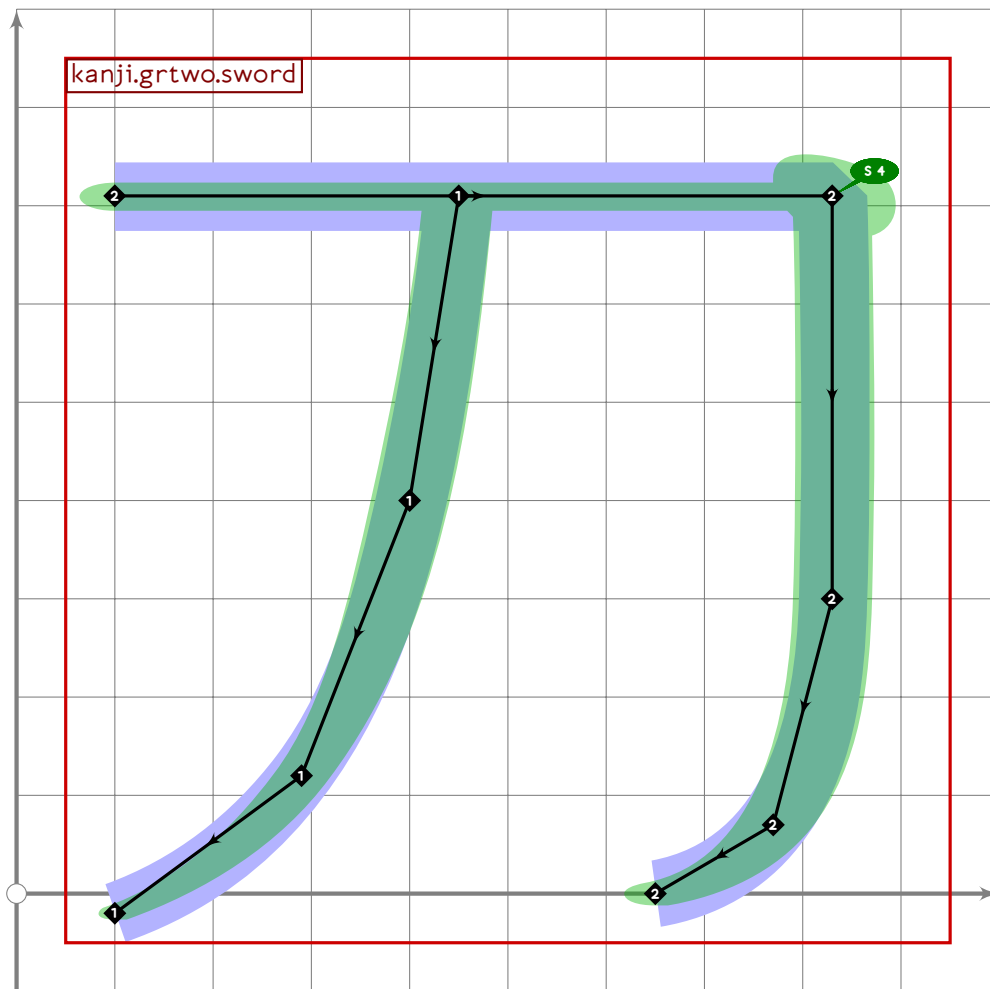
108 % George Michael's Moustache
109 begintsuglyph("uni2F0C";12);
110   kanji.radical.gmm;
111   tsu_render;
112 endtsuglyph;
113

```

U+2F10
tsuku.uni2F10



```
114 % kan "open box radical"
115 begintsuglyph("uni2F10",16);
116   kanji.radical.open_box;
117   tsu_render;
118 endtsuglyph;
119
```

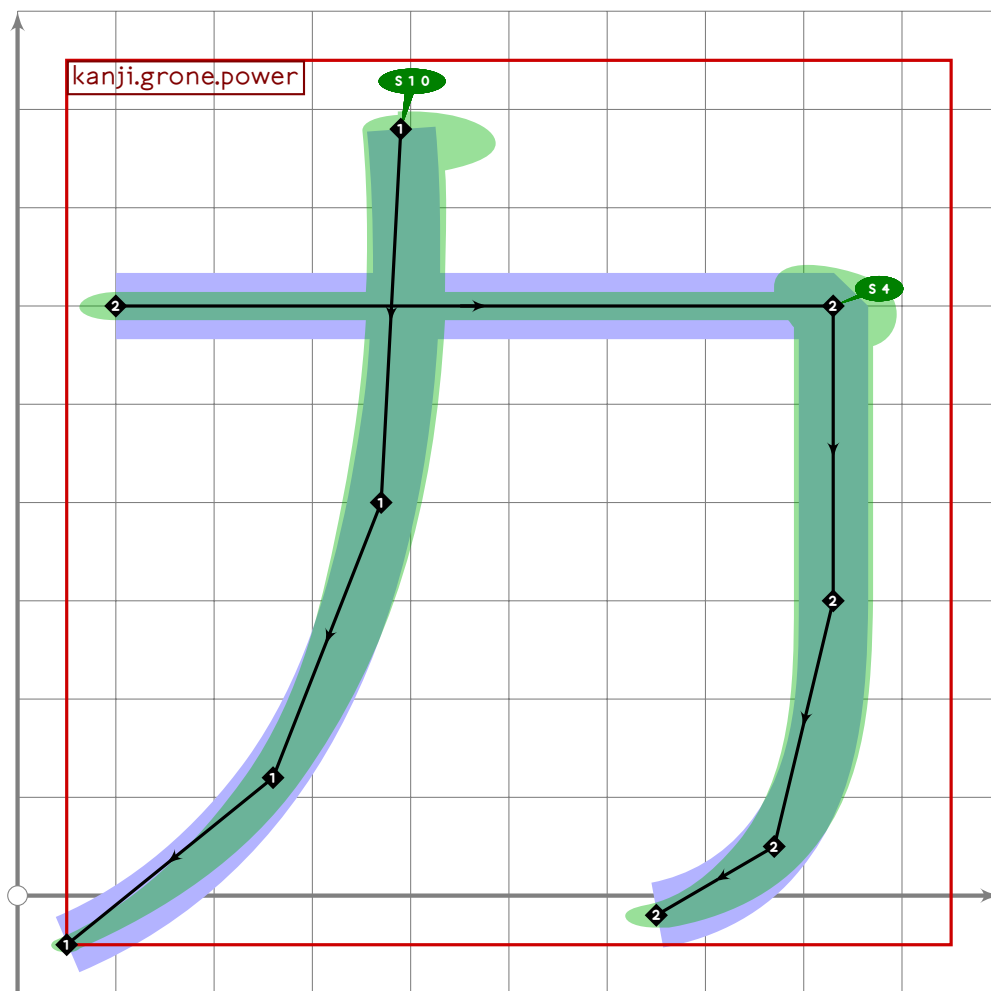


```

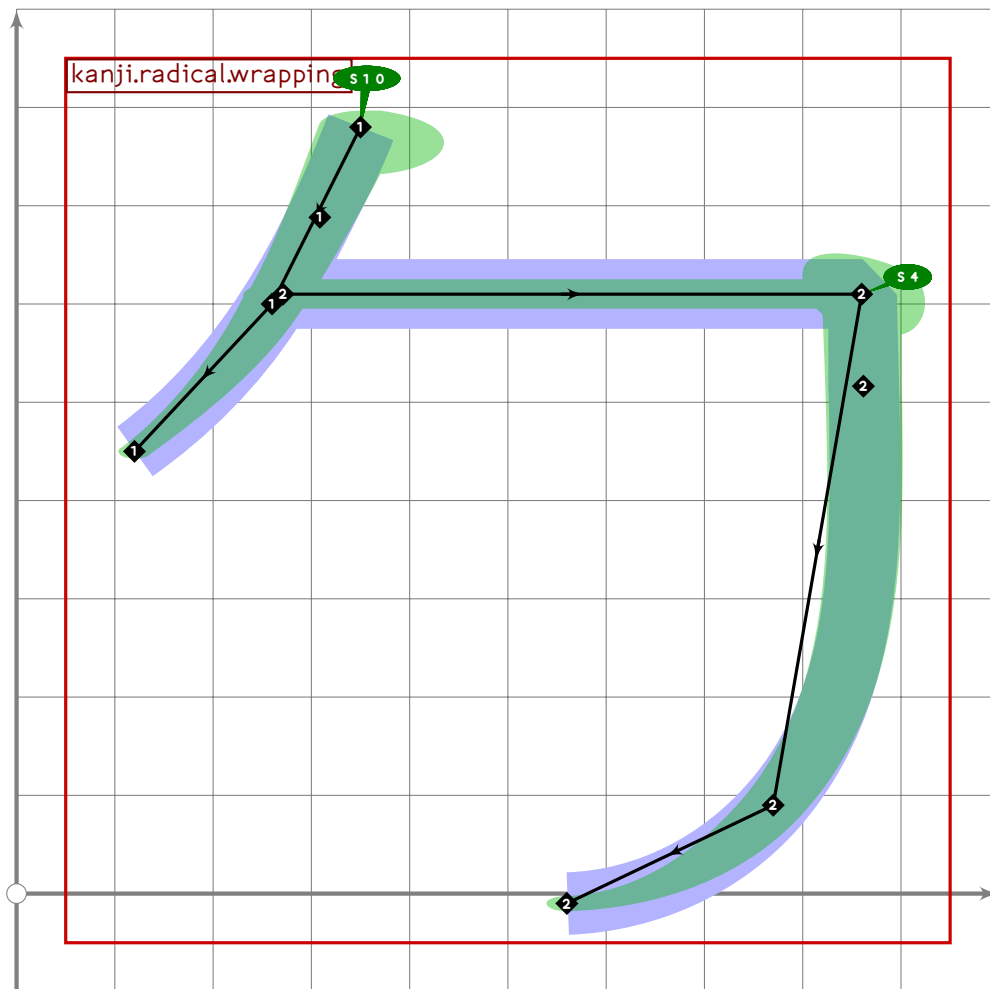
120 % tou/katana "sword"
121 begintsuglyph("uni2F11";17);
122   kanji.grtwo.sword;
123   tsu_render;
124 endtsuglyph;
125

```

U+2F12
tsuku.uni2F12



```
126 % ryoku "power", as in Koizumi Itsuki has teh "chounouryoku"  
127 begintsuglyph("uni2F12",18);  
128   kanji.grone.power;  
129   tsu_render;  
130 endtsuglyph;  
131
```

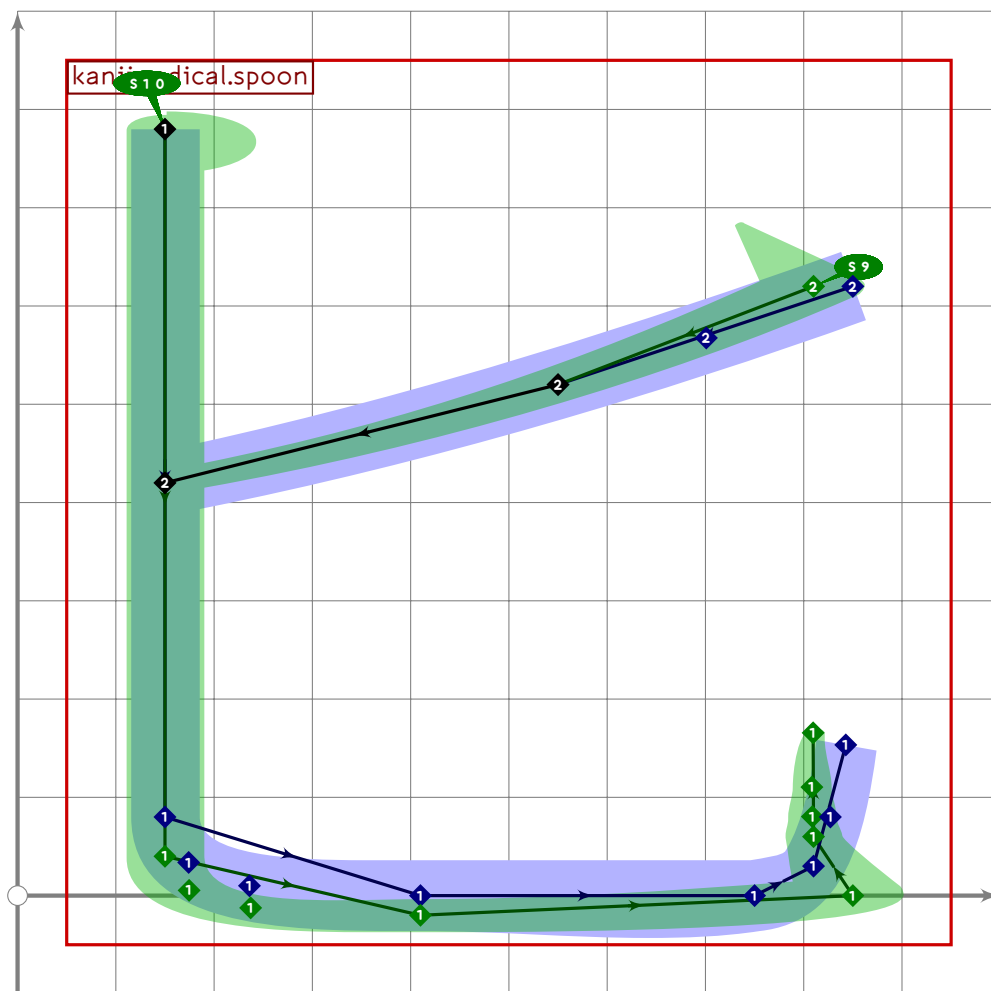



```

132 % hou/tsutsu "wrapping radical"
133 begint Suglyph("uni2F13",19);
134   kanji.radical.wrapping;
135   tsu_render;
136 endtsuglyph;
137

```

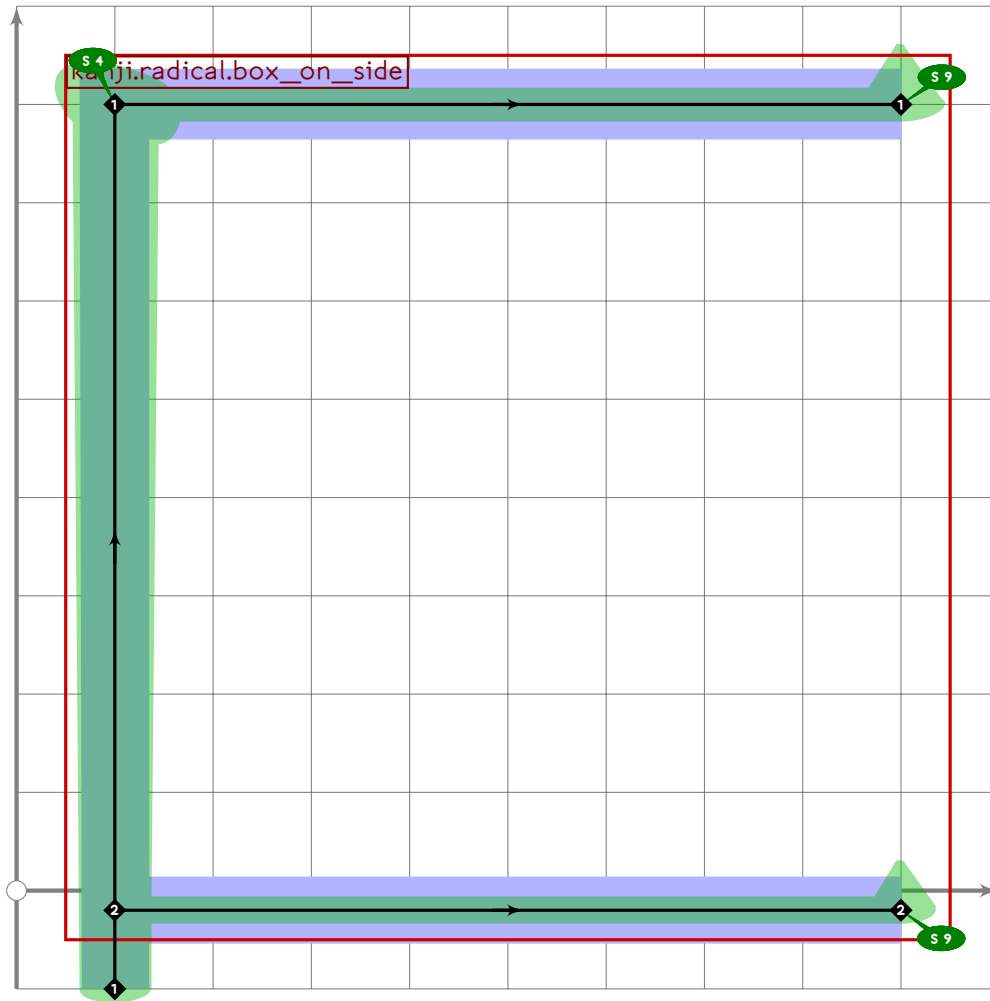
U+2F14
tsuku.uni2F14



```

138 % hi/saji "spoon"
139 begintsuglyph("uni2F14";20);
140   kanji.radical.spoon;
141   tsu_render;
142 endtsuglyph;
143

```

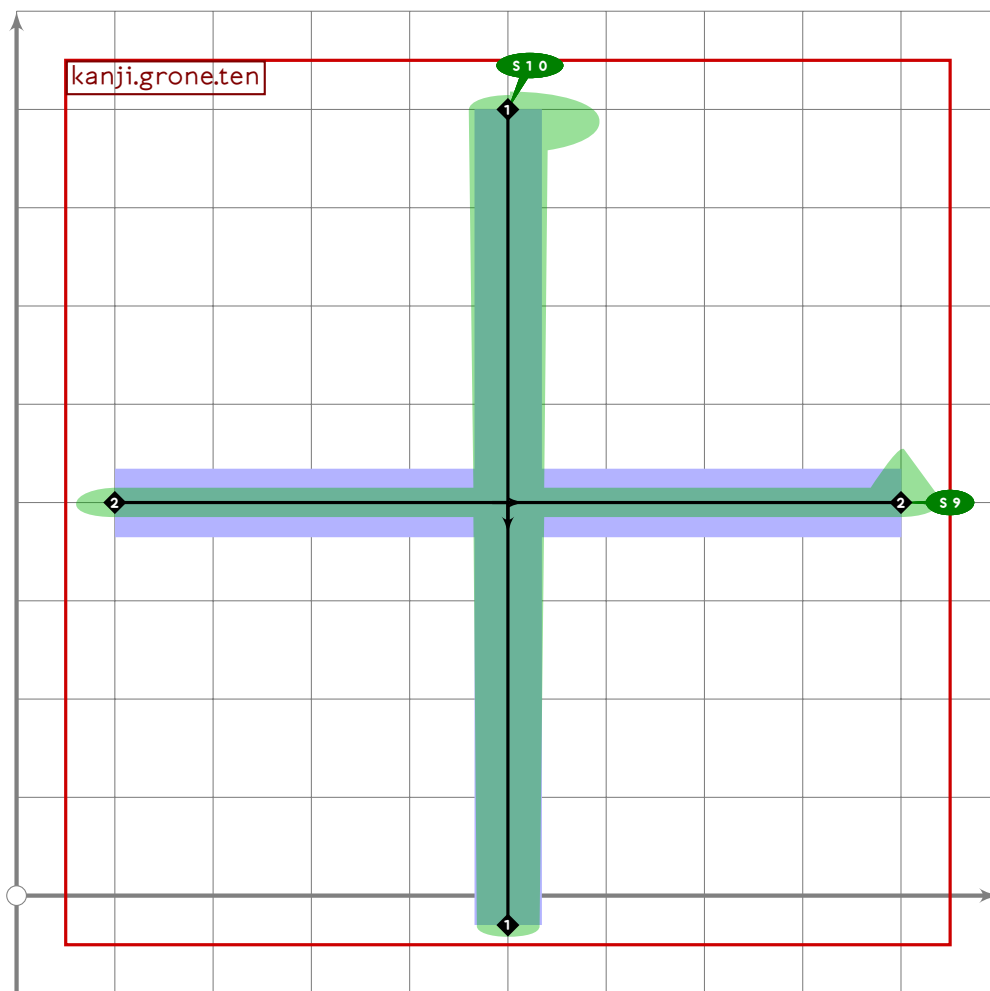


```

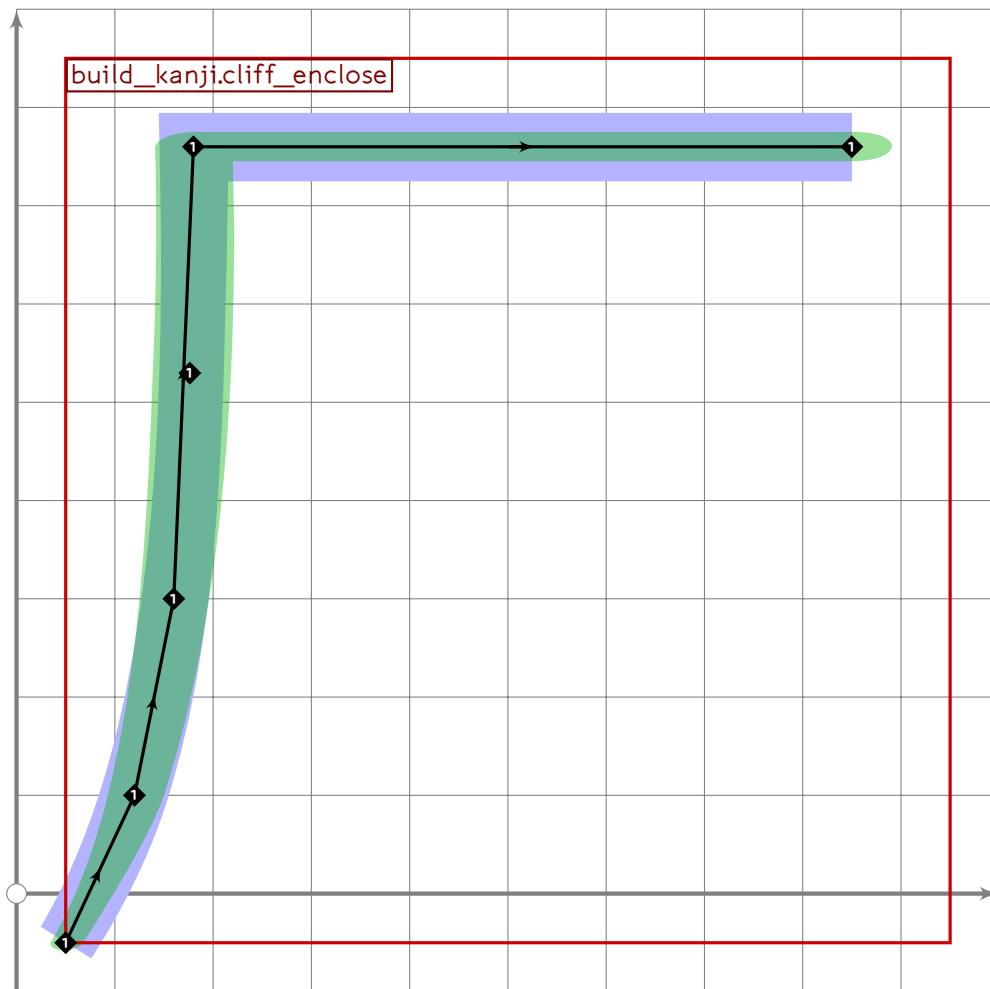
144 % hou/hakogamae "box on side radical"
145 begint Suglyph("uni2F15";21);
146 kanji.radical.box_on_side;
147 tsu_render;
148 endtsuglyph;
149

```

U+2F17
tsuku.uni2F17



```
150 % juu/too "ten"  
151 begintsuglyph("uni2F17";23);  
152   kanji.grone.ten;  
153   tsu_render;  
154 endtsuglyph;  
155
```

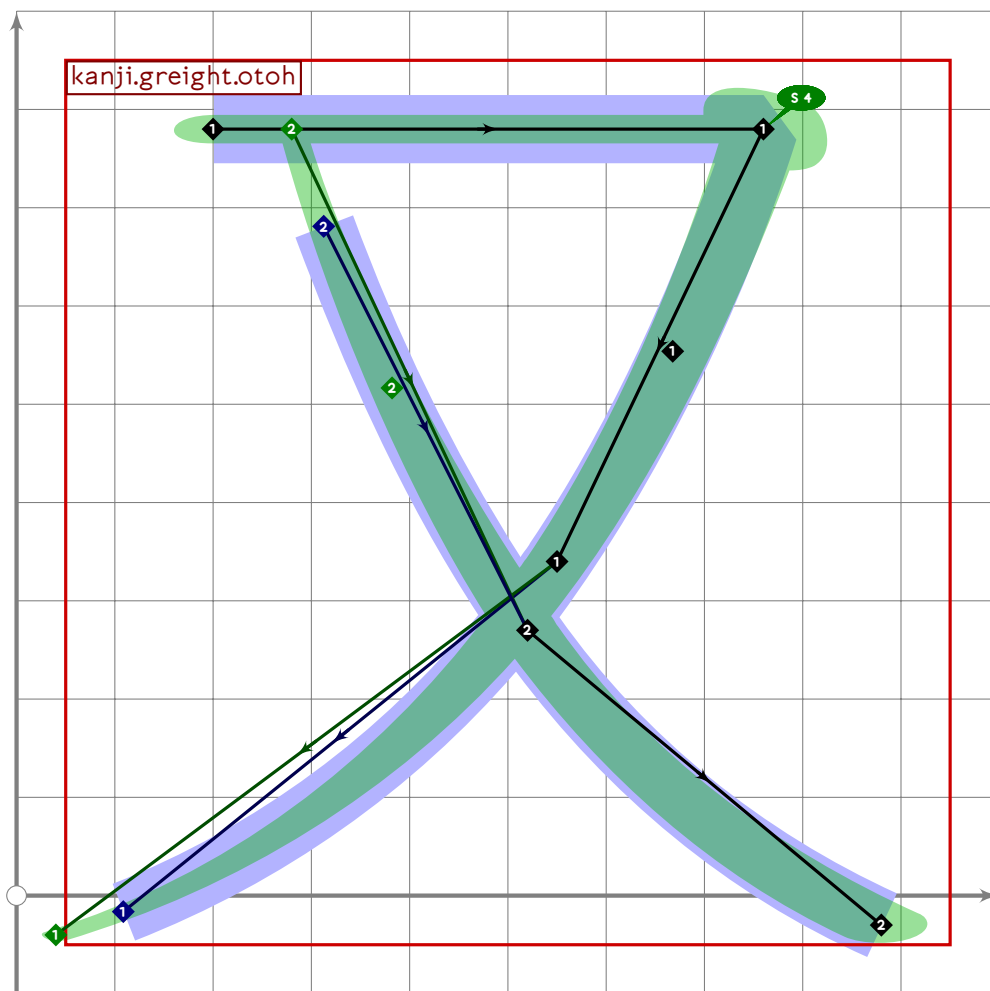


```

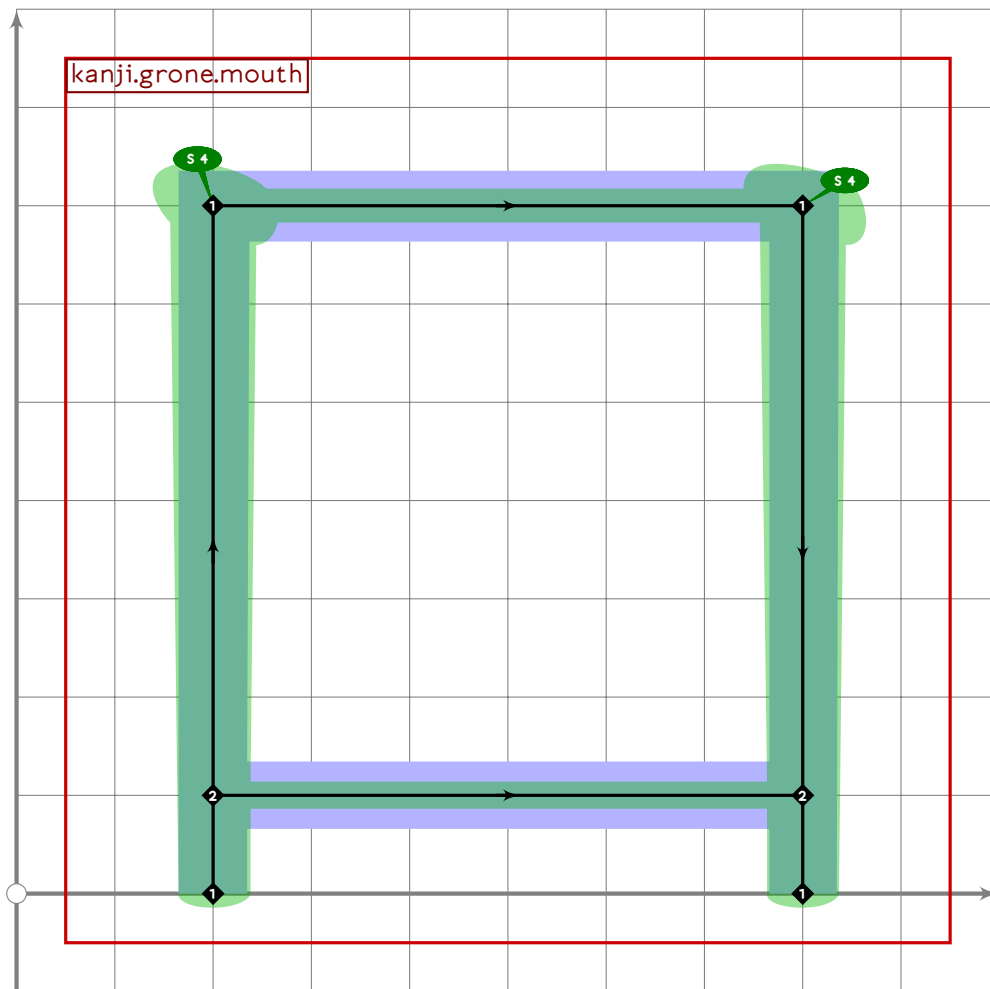
156 % karigane "cliff radical"
157 begintsuglyph("uni2F1A";26);
158   build_kanji.cliff_enclose();
159   tsu_render;
160 endtsuglyph;
161

```

U+2F1C
tsuku.uni2F1C



```
162 % yuu/mata "on the other hand"  
163 begintsuglyph("uni2F1C",28);  
164   kanji.greight.otoh;  
165   tsu_render;  
166 endtsuglyph;  
167
```

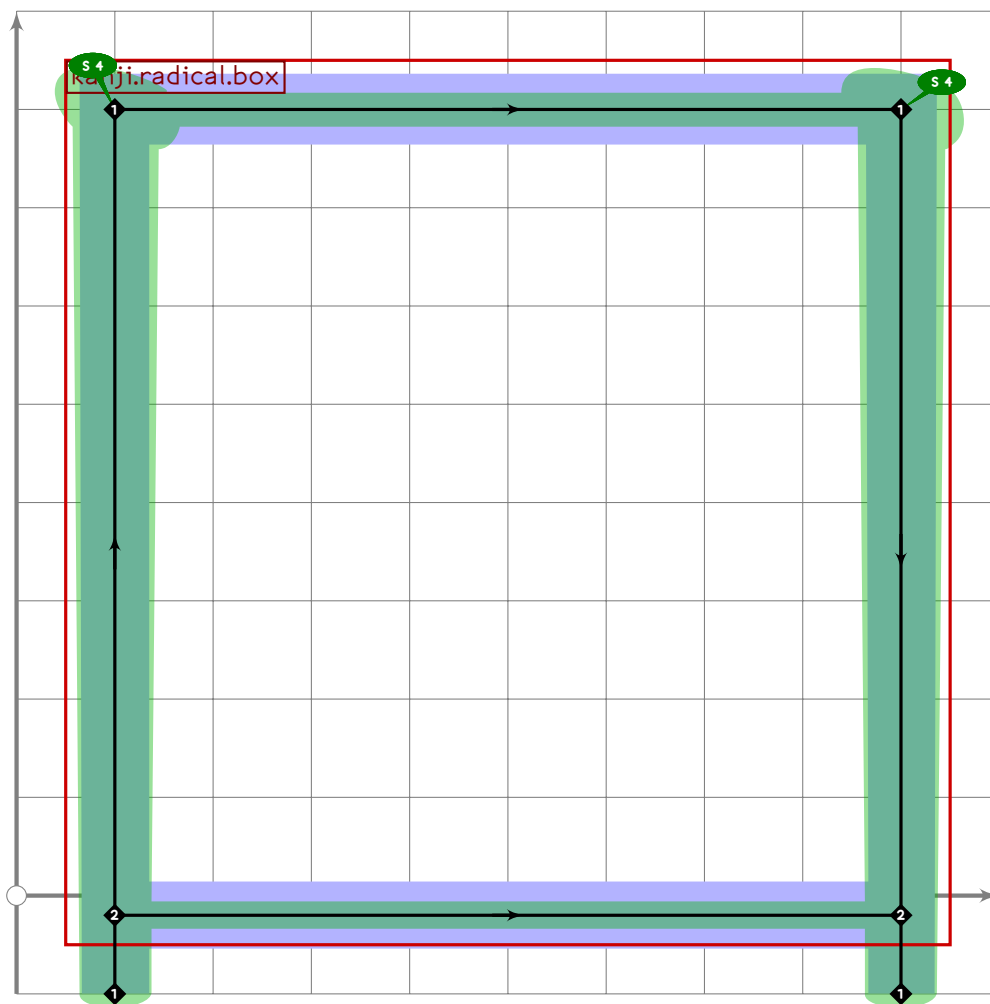


```

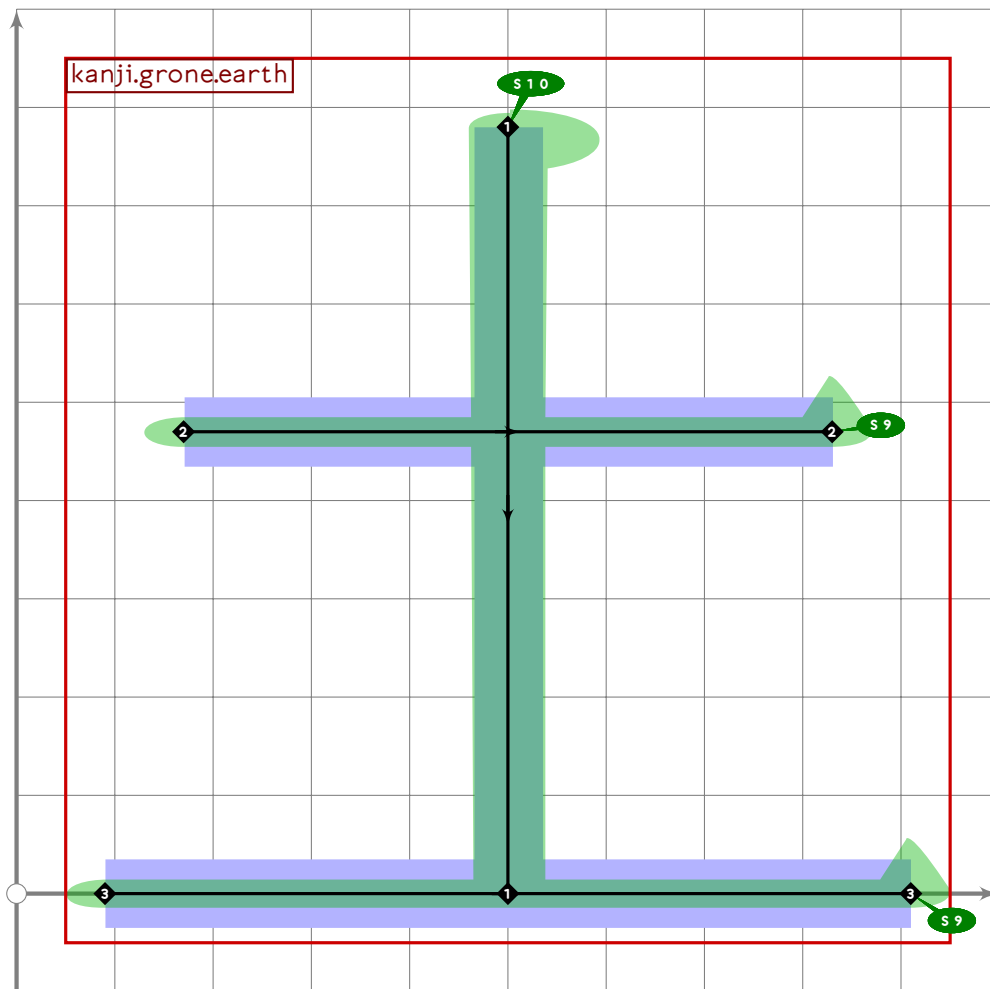
168 % kou/kuchi "mouth"
169 begint Suglyph("uni2F1D",29);
170   kanji.grone.mouth;
171   tsu_render;
172 endtsuglyph;
173

```

U+2F1E
tsuku.uni2F1E



```
174 % box radical
175 begint Suglyph("uni2F1E";30);
176 kanji.radical.box;
177 tsu_render;
178 endtsuglyph;
179
```

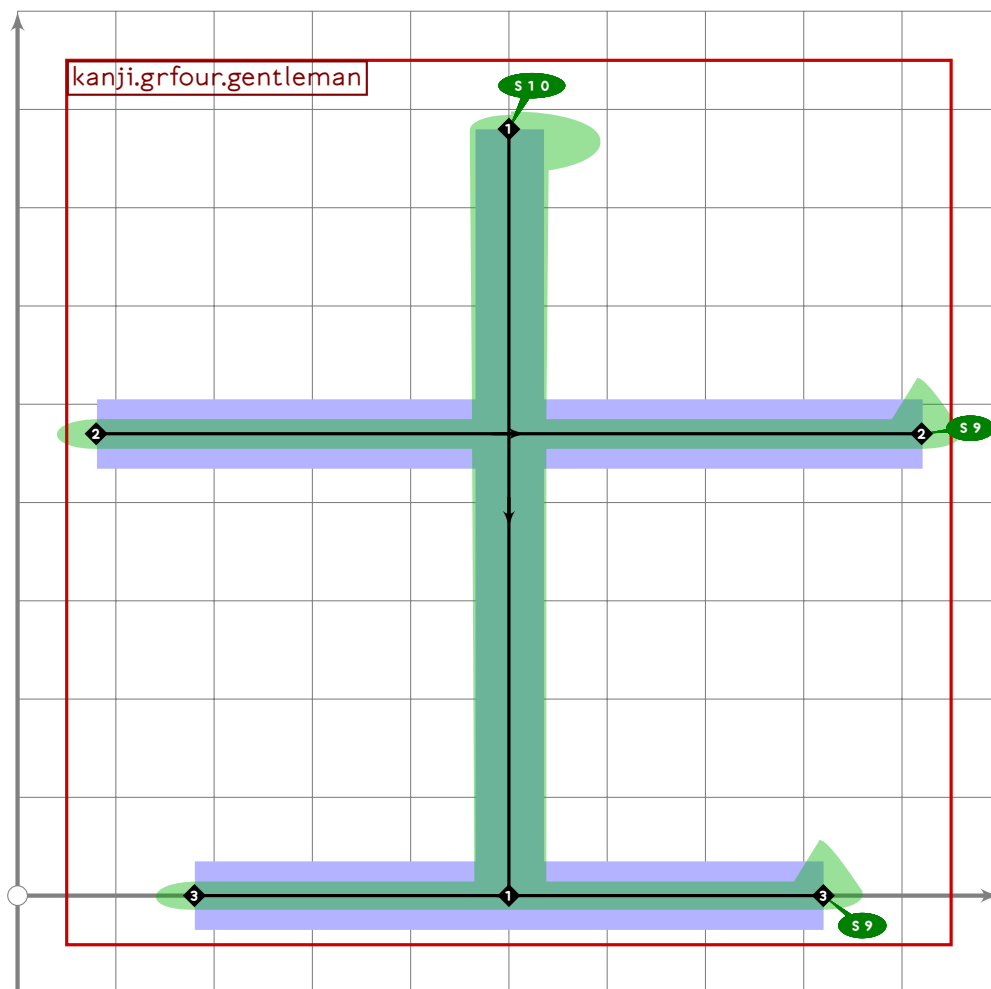



```

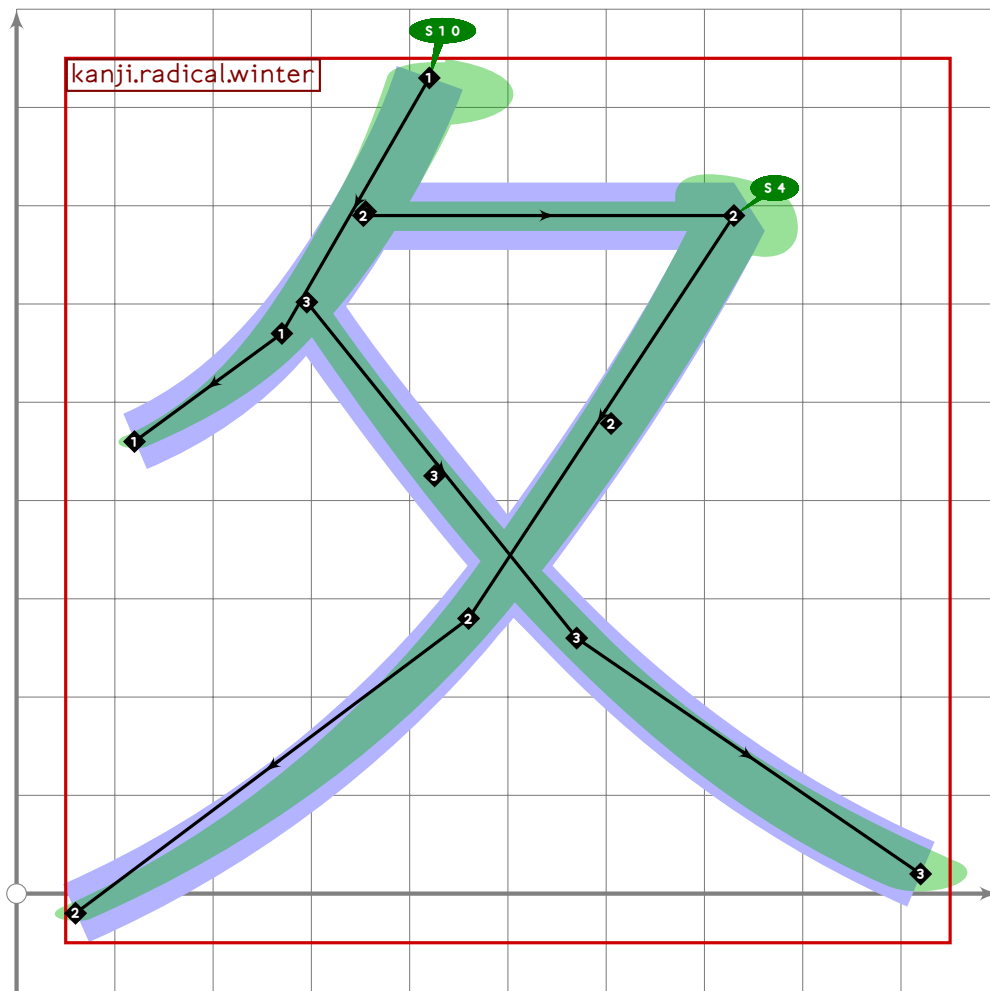
180 % tsuchi/do "earth"
181 begintsuglyph("uni2F1F";31);
182   kanji.grone.earth;
183   tsu_render;
184 endtsuglyph;
185

```

U+2F20
tsuku.uni2F20



```
186 % shi "gentleman" ("samurai" radical)
187 begintsuglyph("uni2F20",32);
188   kanji.grfour.gentleman;
189   tsu_render;
190 endtsuglyph;
191
```

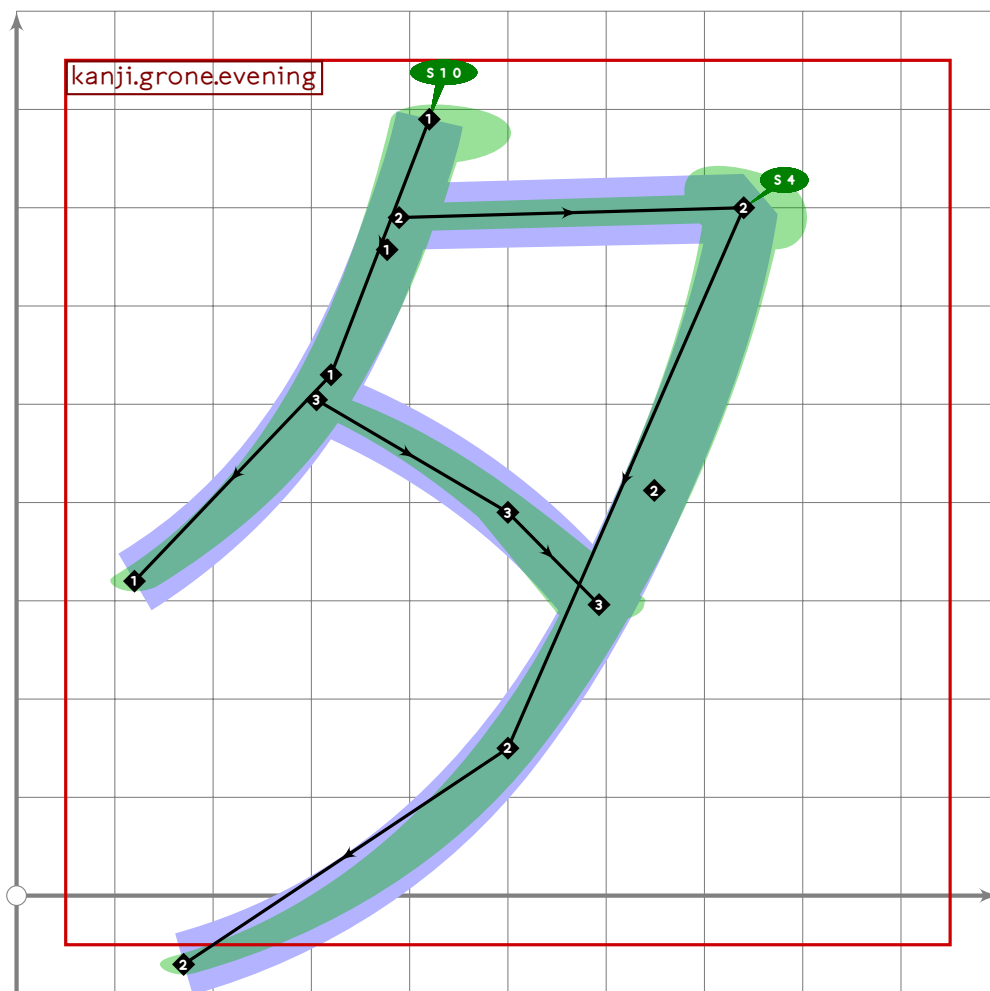


```

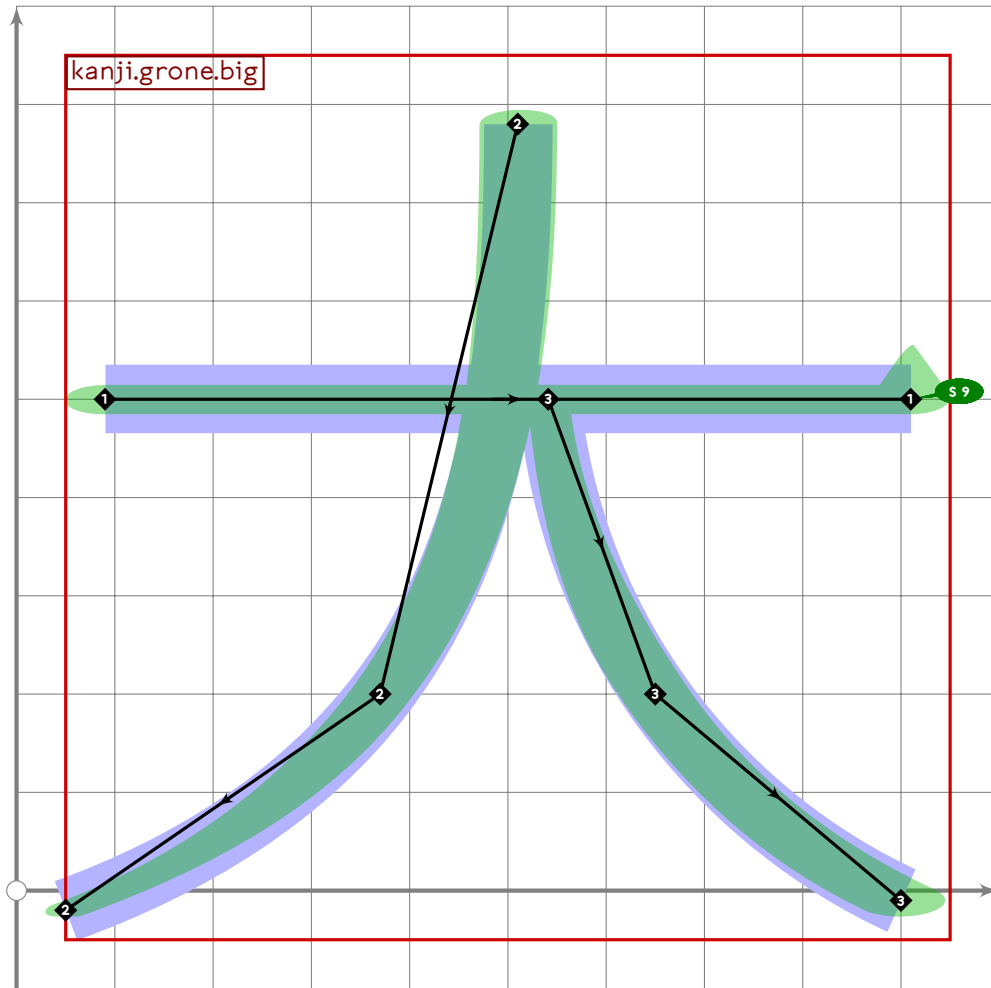
192 % chi/shuu "winter radical"
193 begintsuglyph("uni2F21";33);
194   kanji.radical.winter;
195   tsu_render;
196 endtsuglyph;
197

```

U+2F23
tsuku.uni2F23



```
198 % yuu/seki "evening"  
199 begintsuglyph("uni2F23",35);  
200 kanji.grone.evening;  
201 tsu_render;  
202 endtsuglyph;  
203
```

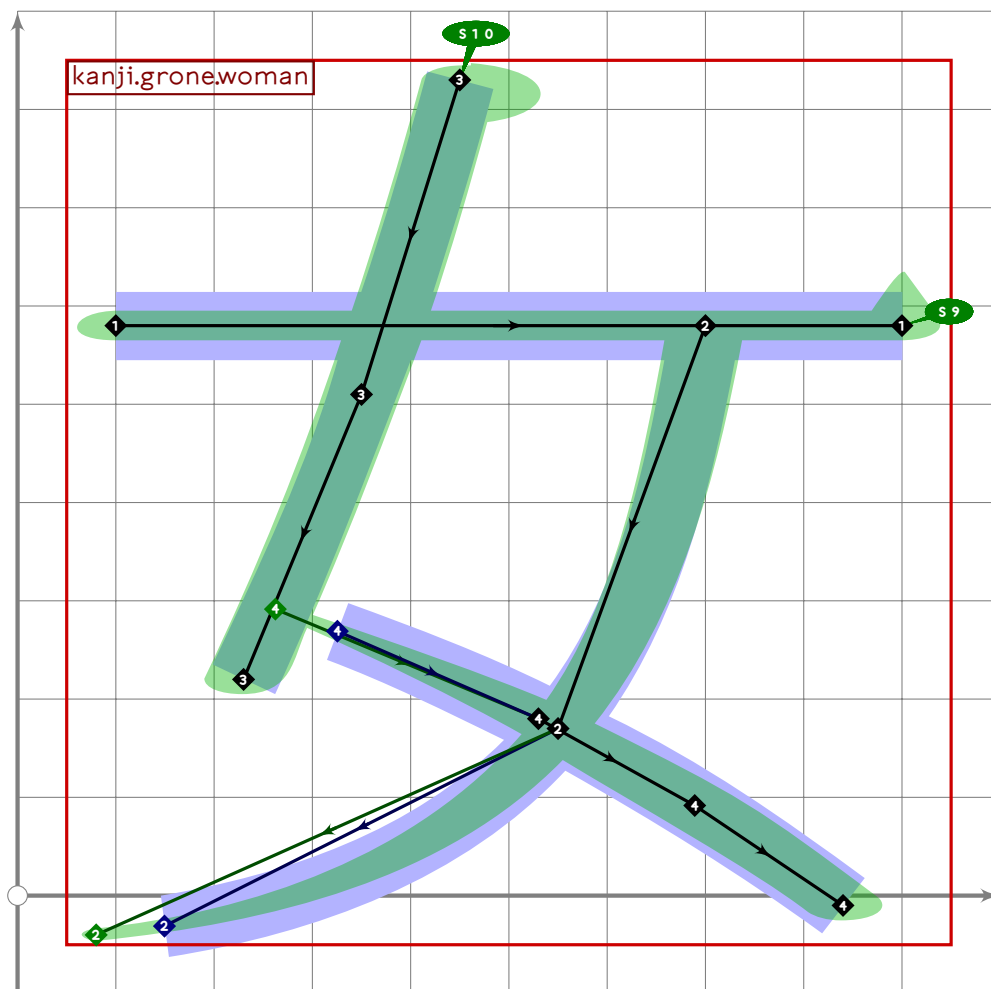


```

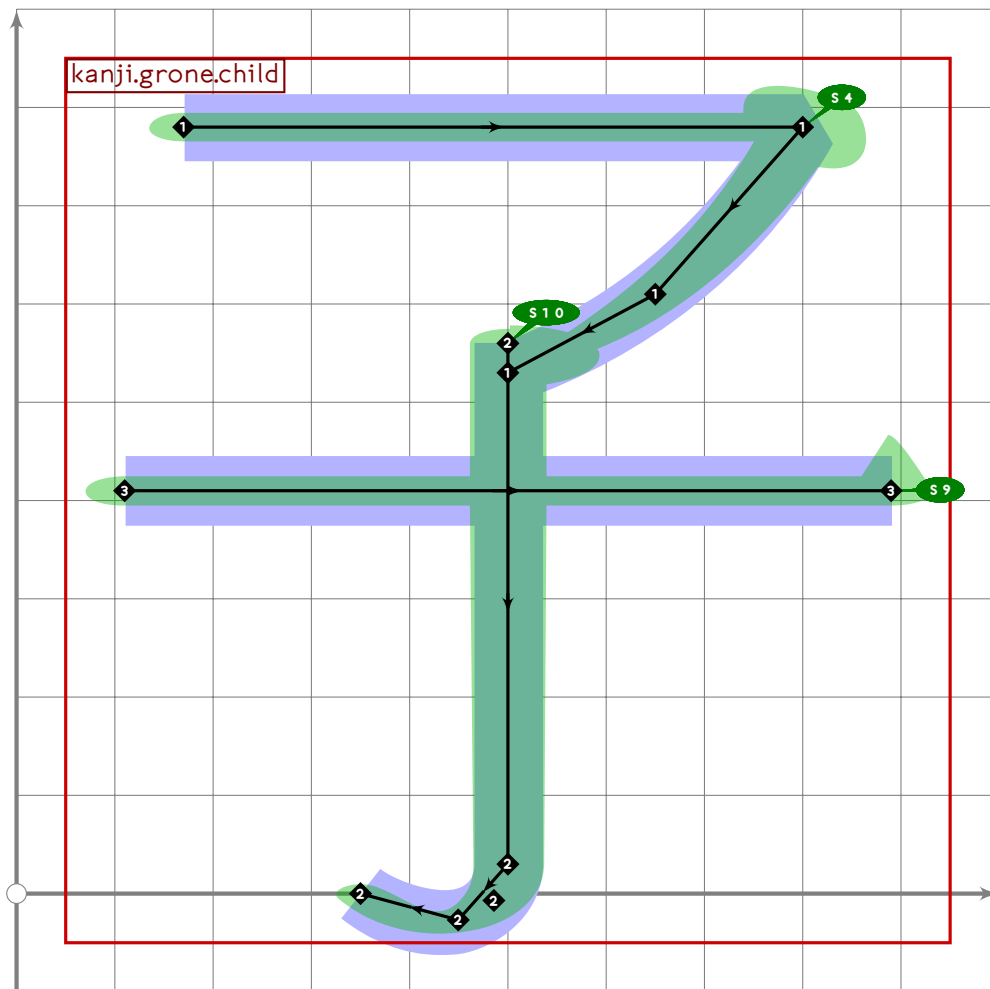
204 % dai/oo "big"
205 begintsuglyph("uni2F24";36);
206   kanji.grone.big;
207   tsu_render;
208 endtsuglyph;
209

```

U+2F25
tsuku.uni2F25



```
210 % jo/onna "woman"  
211 begint Suglyph("uni2F25";37);  
212   kanji.gronewoman;  
213   tsu_render;  
214 endtsuglyph;  
215
```

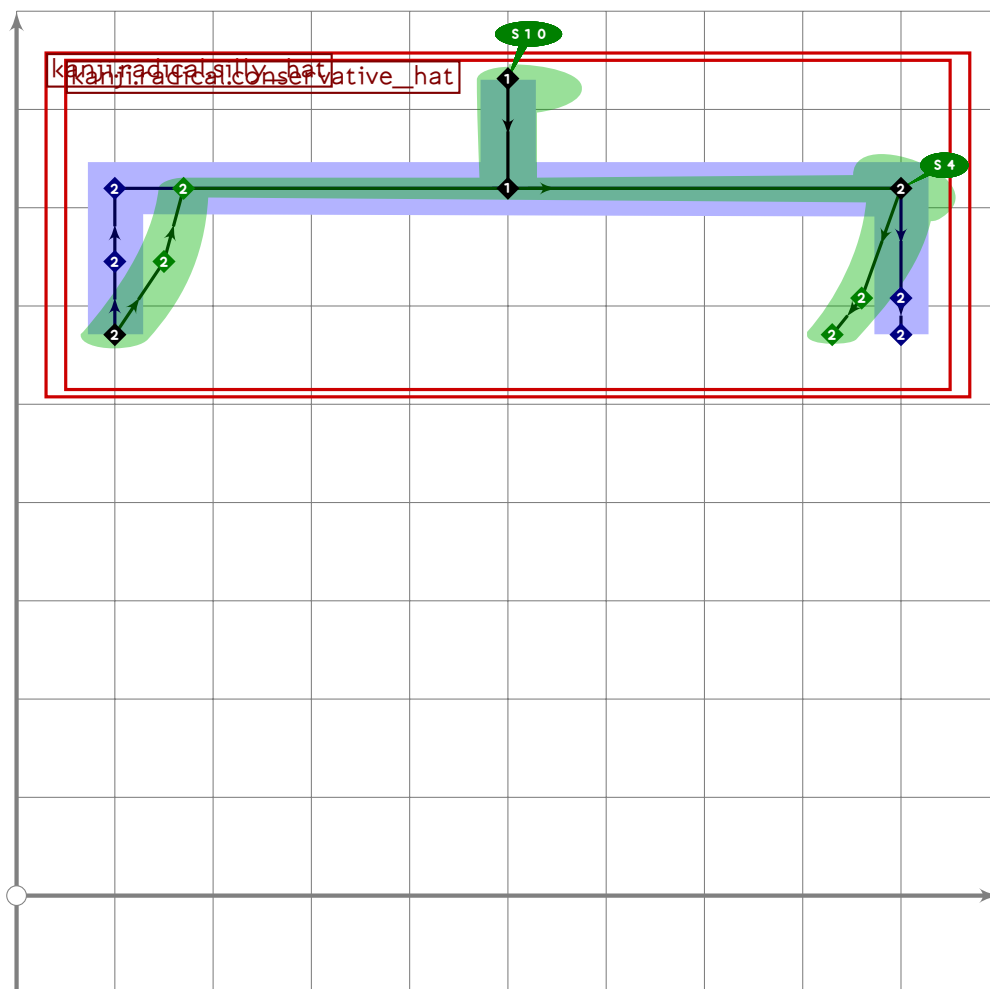


```

216 % ko "child"
217 begint Suglyph("uni2F26";38);
218   kanji.grone.child;
219   tsu_render;
220 endtsuglyph;
221

```

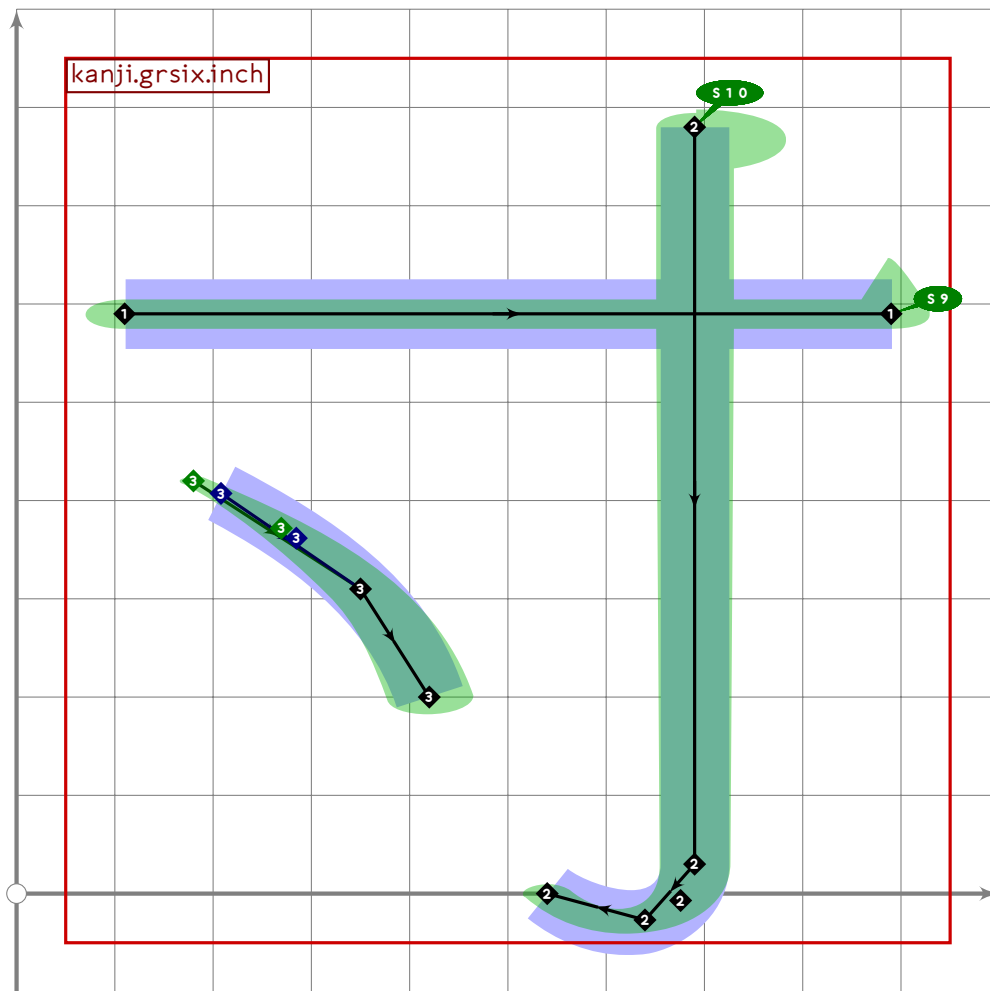
U+2F27
tsuku.uni2F27



```

222 % silly hat radical
223 begint Suglyph("uni2F27",39);
224   build_kanji.tb(500;30)
225     (kanji.radical.silly_hat)
226   ();
227   tsu_render;
228 endtsuglyph;
229

```

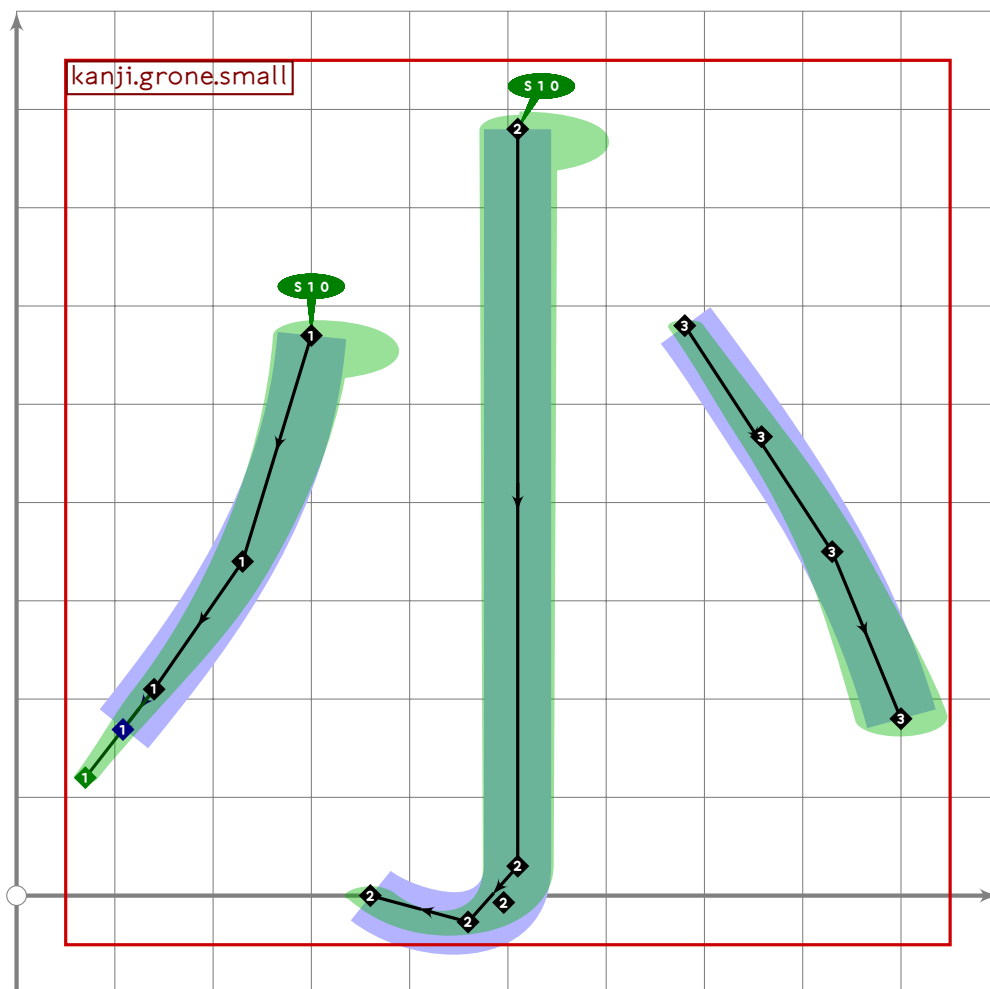



```

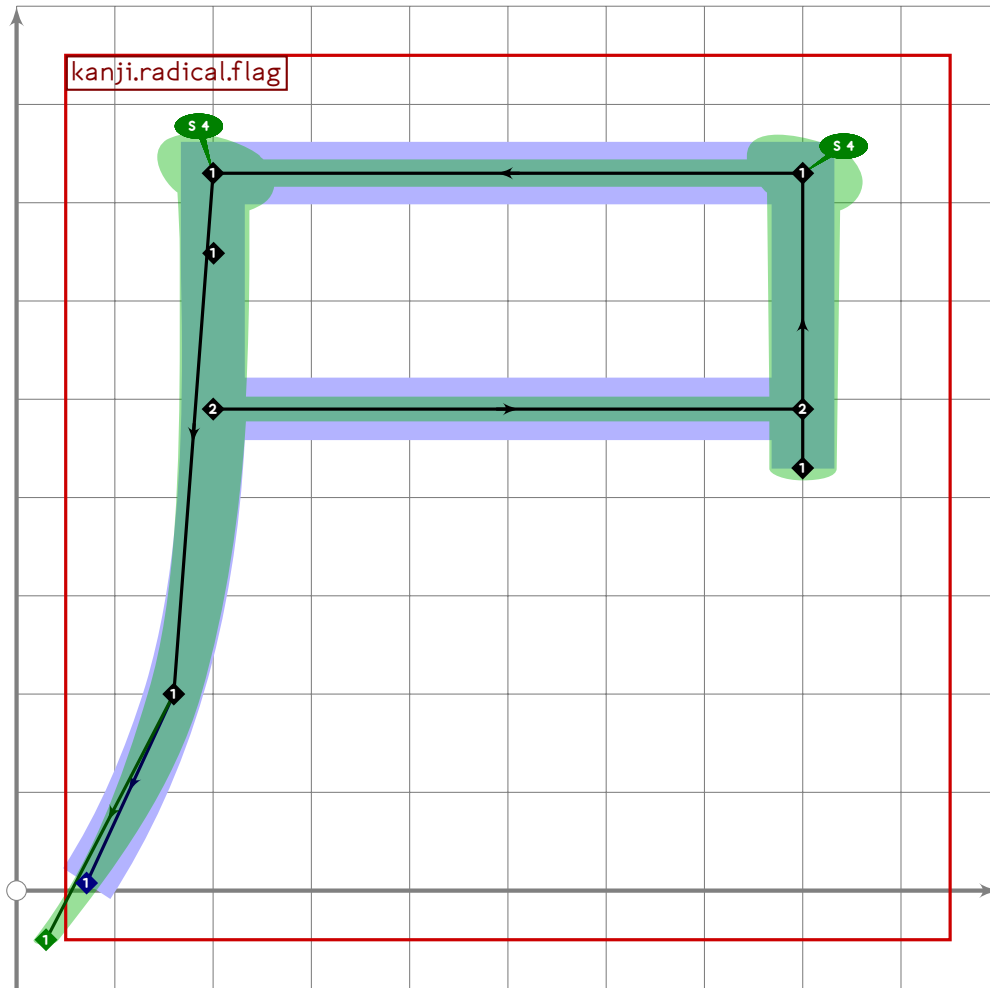
230 % su/miki "inch"; also often a radical
231 begint Suglyph("uni2F28";40);
232   kanji.grsix.inch;
233   tsu_render;
234 endtsuglyph;
235

```

U+2F29
tsuku.uni2F29



```
236 % shuu/chii "small"  
237 begintsuglyph("uni2F29";41);  
238   kanji.grone.small;  
239   tsu_render;  
240 endtsuglyph;  
241
```

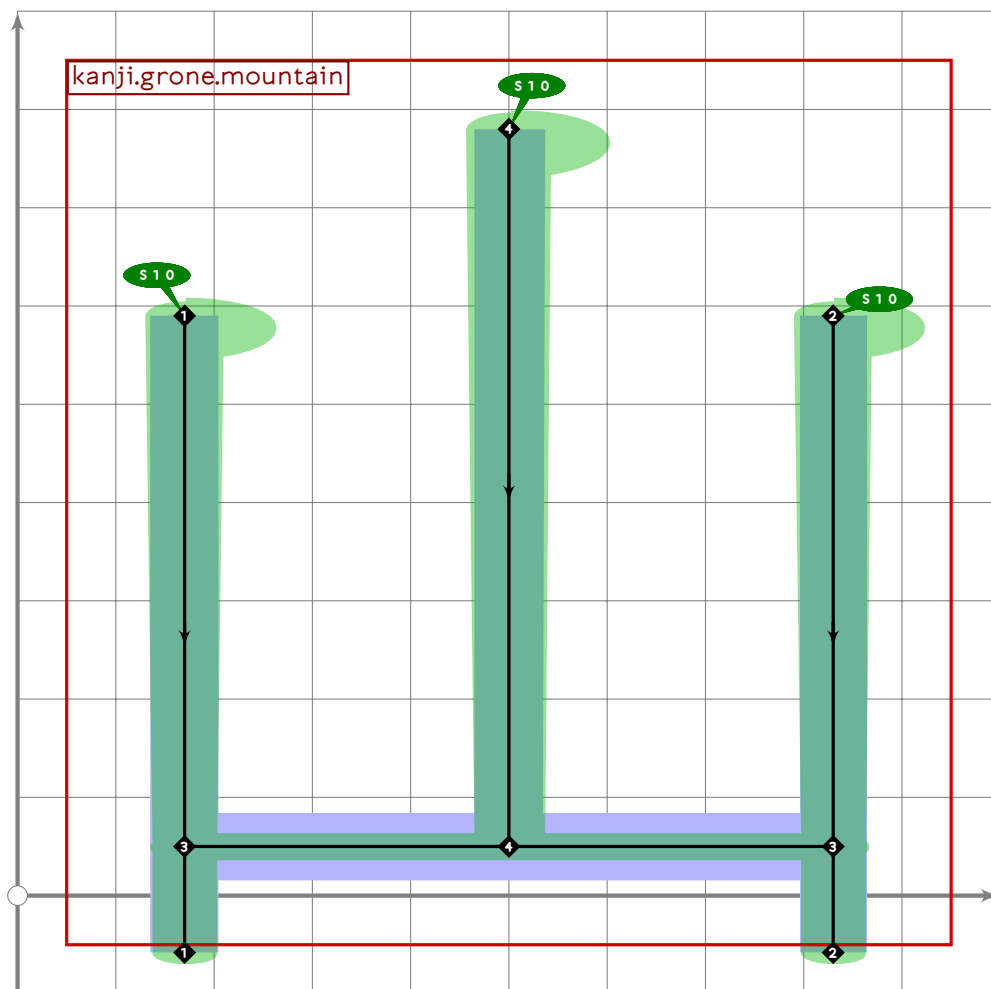


```

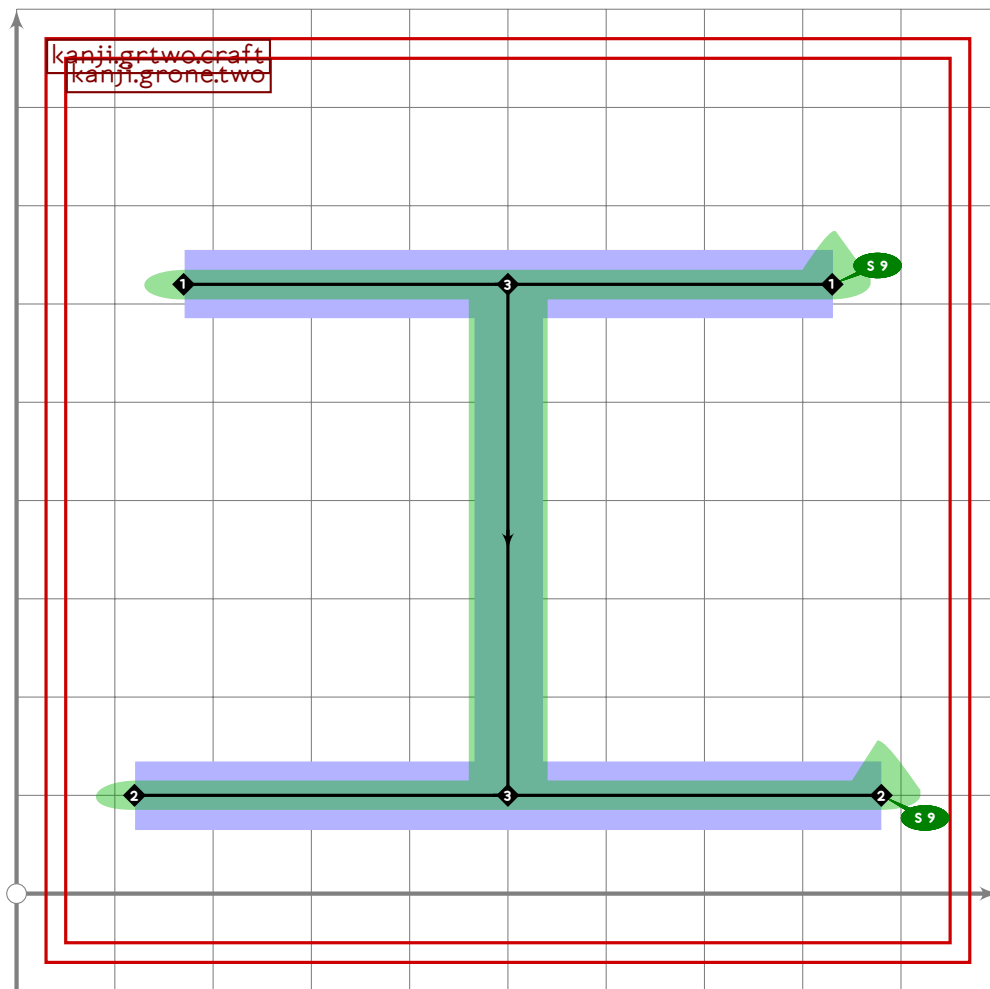
242 % shi/katashiro "corpse" or "flag radial"
243 begint Suglyph("uni2F2B",43);
244   kanji.radical.flag;
245   tsu_render;
246 endtsuglyph;
247

```

U+2F2D
tsuku.uni2F2D



```
248 % yama/san "mountain"
249 begintsuglyph("uni2F2D";45);
250   kanji.grone.mountain;
251   tsu_render;
252 endtsuglyph;
253
```

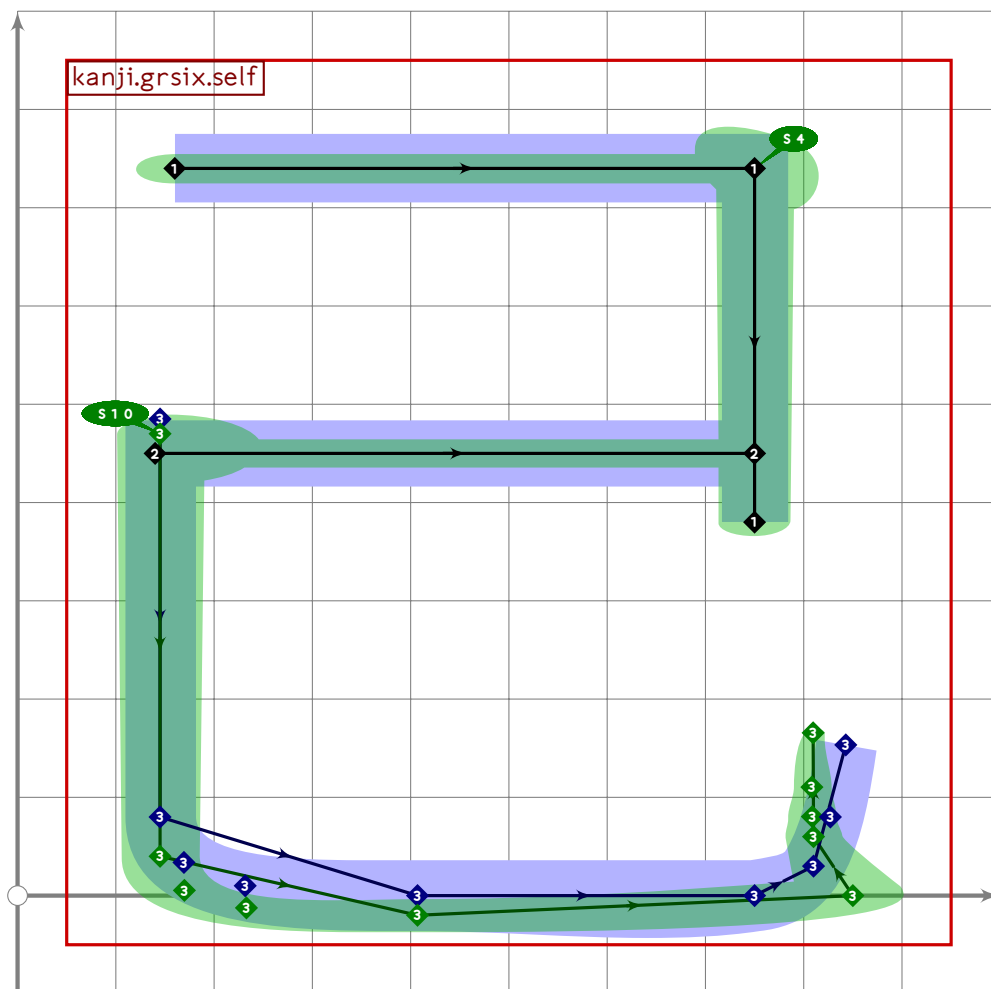


```

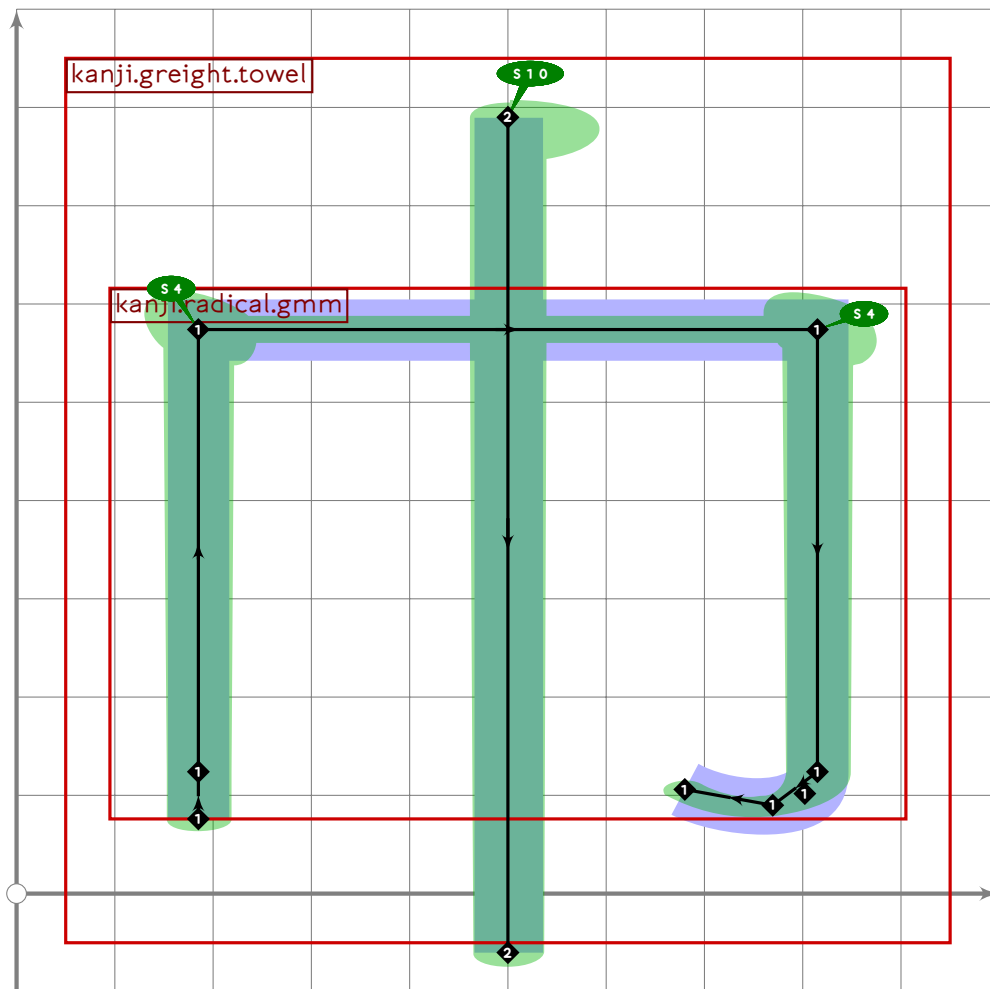
254 % takumi "craft"
255 beginsuglyph("uni2F2F";47);
256   kanji.grt.two.craft;
257   tsu_render;
258 endsuglyph;
259

```

U+2F30
tsuku.uni2F30



```
260 % ko/ki "self" (dict. says also "snake" but almost no words use it that way)
261 begintsuglyph("uni2F30";48);
262   kanji.grsix.self;
263   tsu_render;
264 endtsuglyph;
265
```

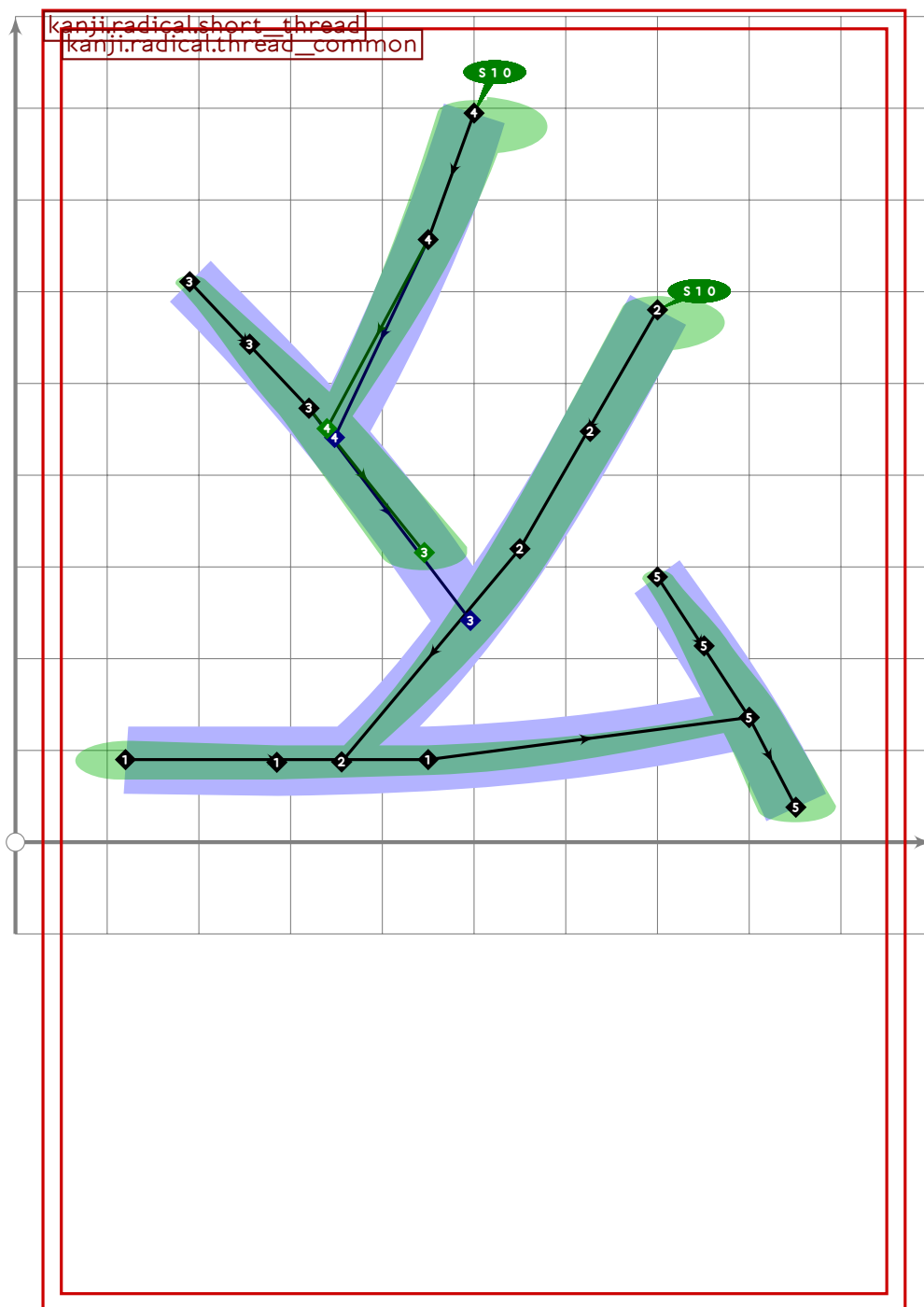


```

266 % kin/oo/ha ba "towel" or "hanging scroll"
267 begintsuglyph("uni2F31";49);
268   kanji.greight.towel;
269   tsu_render;
270 endtsuglyph;
271

```

U+2F33
tsuku.uni2F33

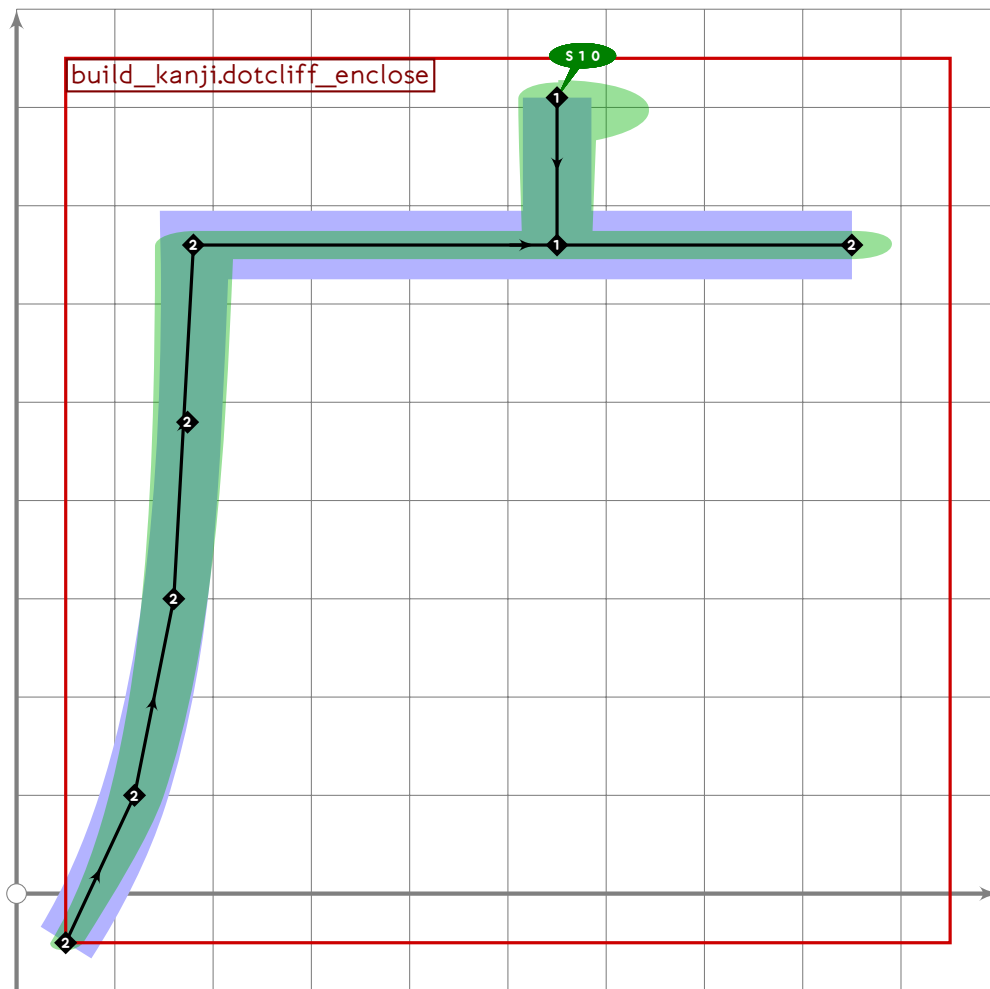


2F

```

272 % you/chiisai "short thread radical"
273 begintsuglyph("uni2F33";51);
274 kanji.radical.short_thread;
275 tsu_render;
276 endtsuglyph;
277

```

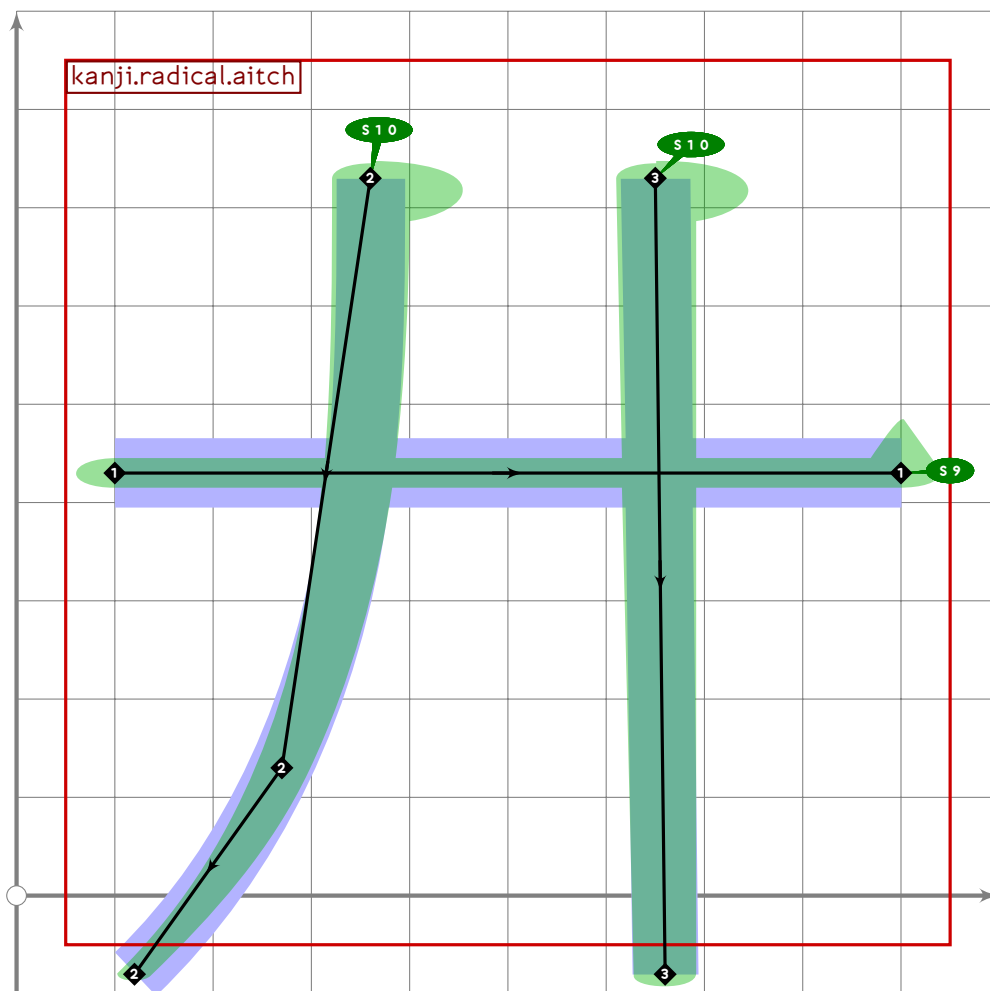



```

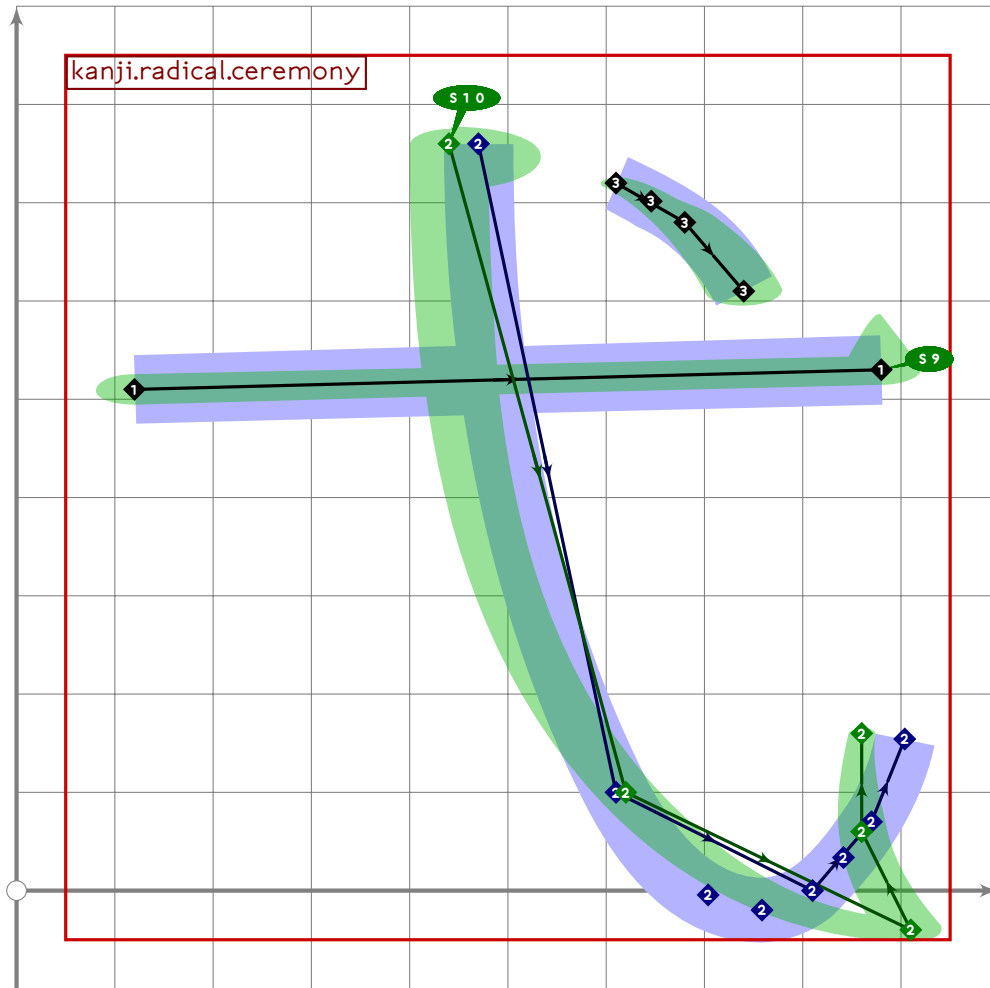
278 % madare "dotted cliff radical"
279 begint Suglyph("uni2F34";52);
280   build_kanji.dotcliff_enclose();
281   tsu_render;
282 endtsuglyph;
283

```

U+2F36
tsuku.uni2F36



```
284 % extra
285 begint Suglyph("uni2F36",54);
286   kanji.radical.aitch;
287   tsu_render;
288 endtsuglyph;
289
```

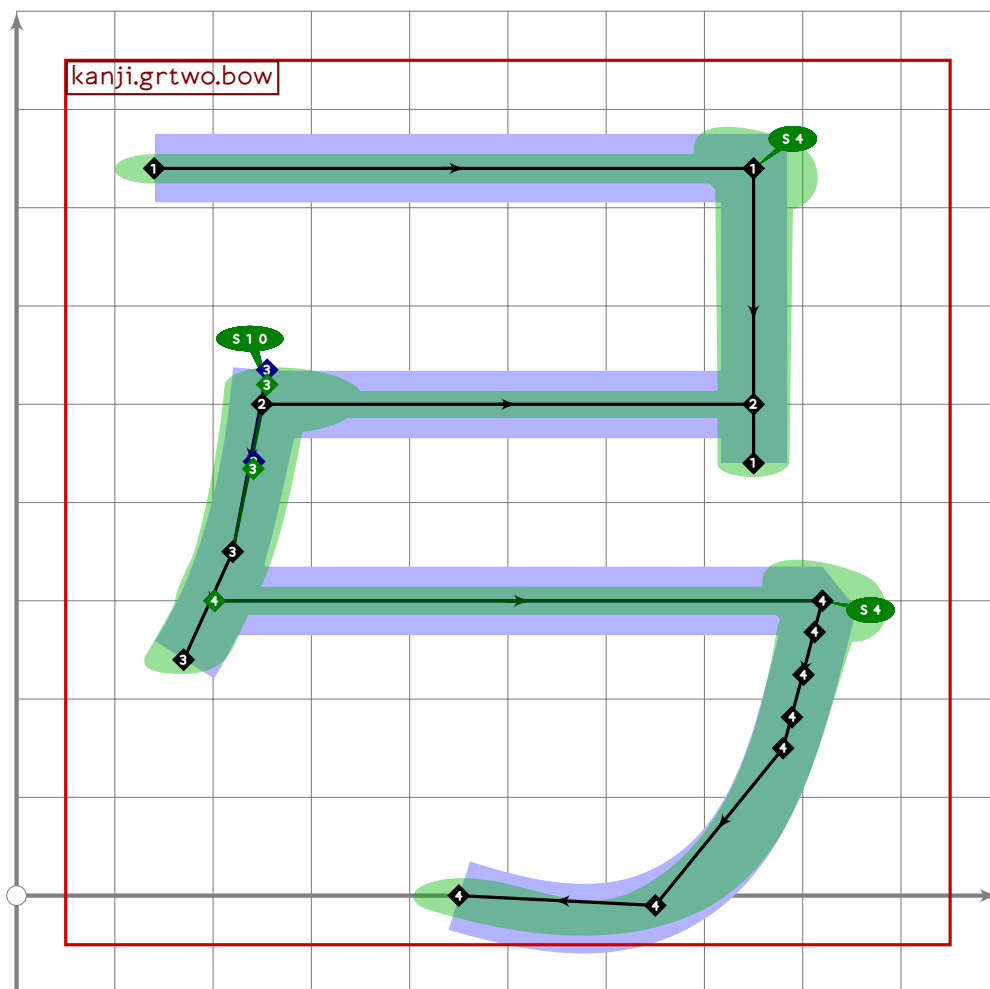


```

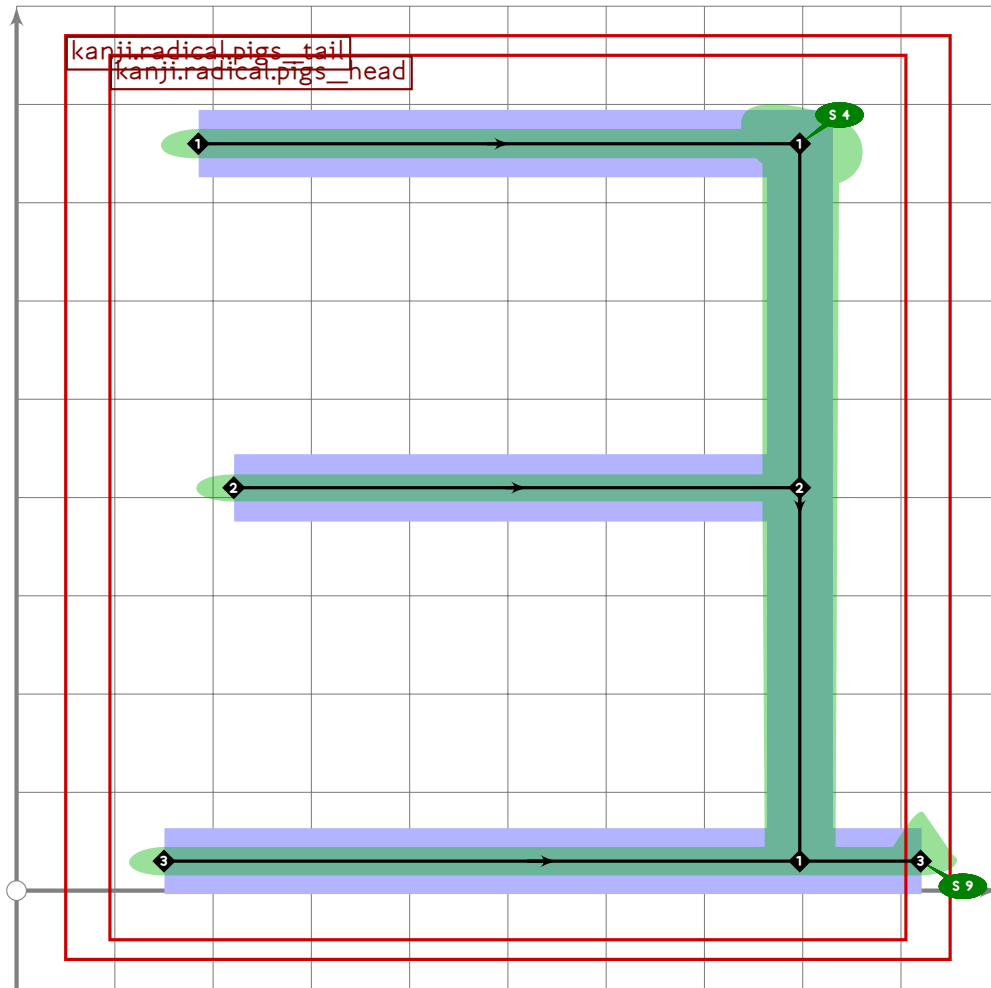
290 % yoku/iguromi "ceremony radical"
291 begintsuglyph("uni2F37",55);
292   kanji.radical.ceremony;
293   tsu_render;
294 endtsuglyph;
295

```

U+2F38
tsuku.uni2F38



```
296 % kyuuyumi "bow" (projectile weapon)
297 beginsuglyph("uni2F38",56);
298   kanji.grtwo.bow;
299   tsu_render;
300 endsuglyph;
301
```

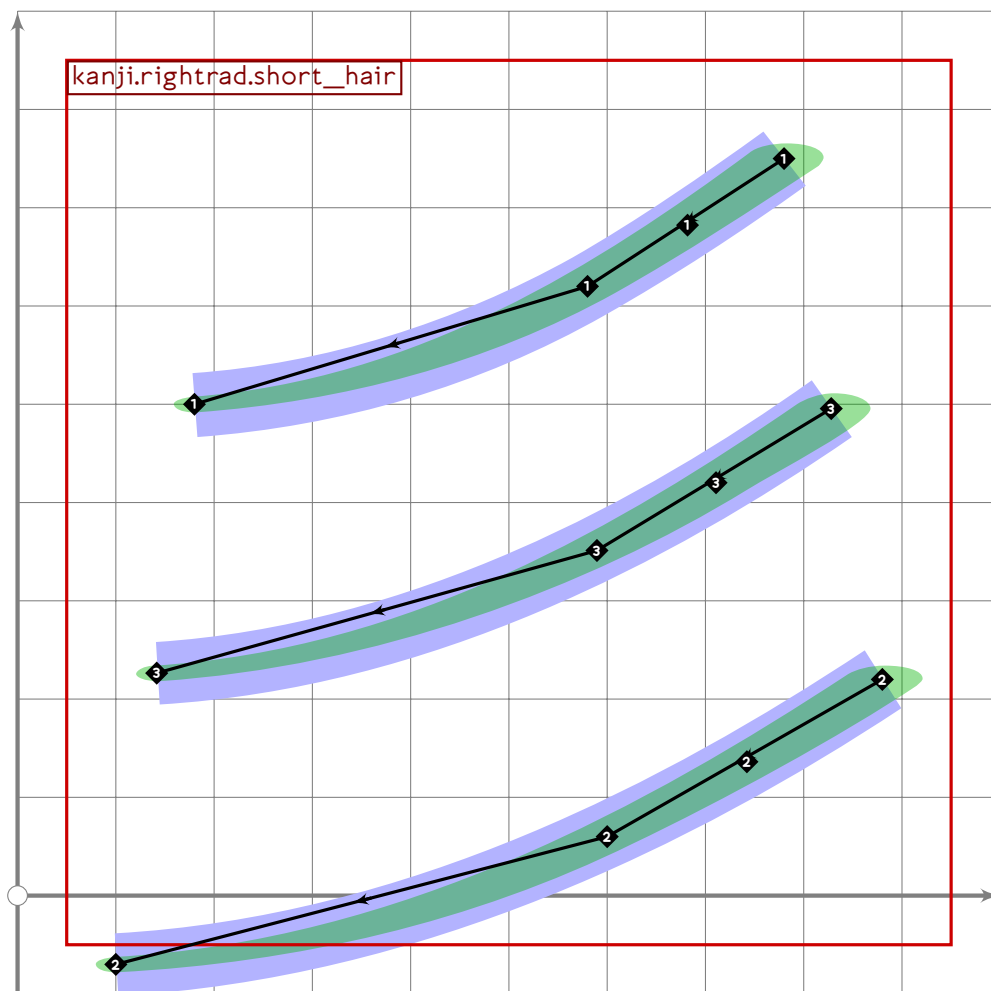


```

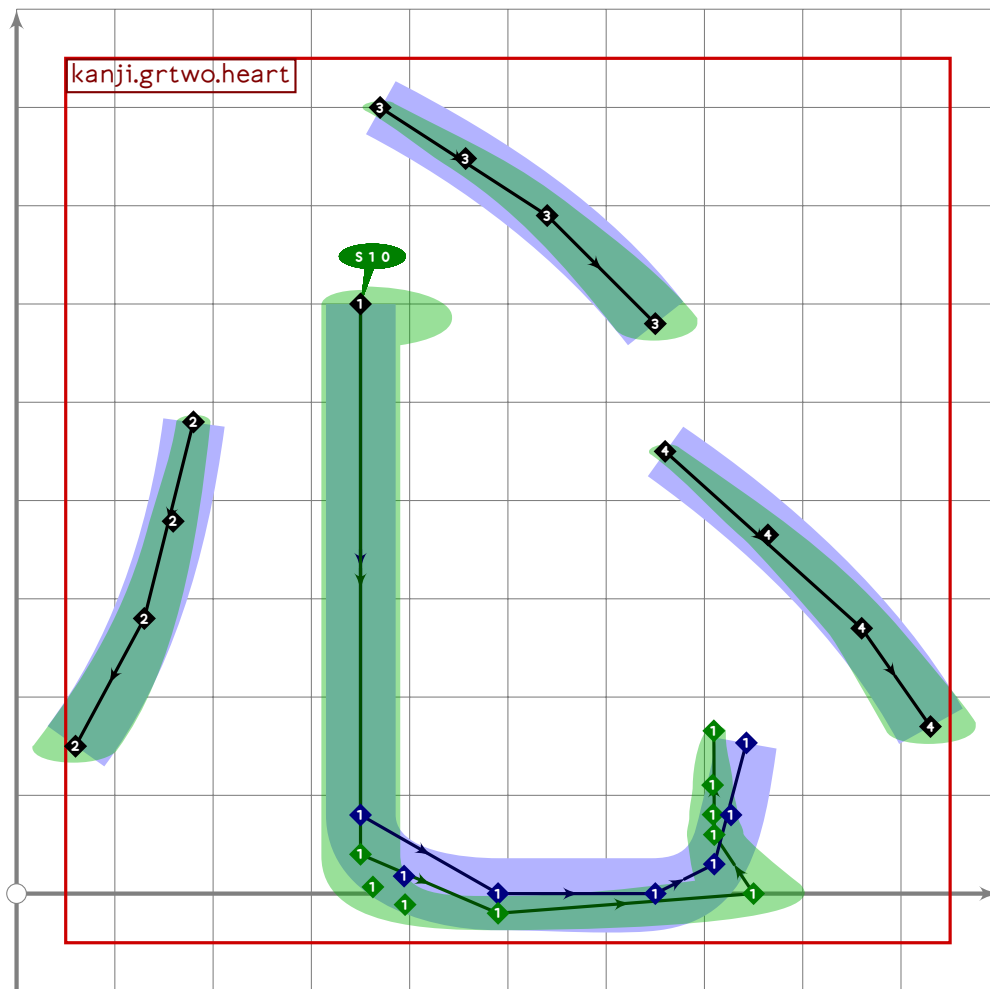
302 % needed for lots of other things, rare by itself
303 begintsuglyph("uni2F39",57);
304   kanji.radical.pigs_tail;
305   tsu_render;
306 endtsuglyph;
307

```

U+2F3A
tsuku.uni2F3A



```
308 % san "short hair radical"
309 begintsuglyph("uni2F3A",58);
310   kanji.rightrad.short_hair;
311   tsu_render;
312 endtsuglyph;
313
```

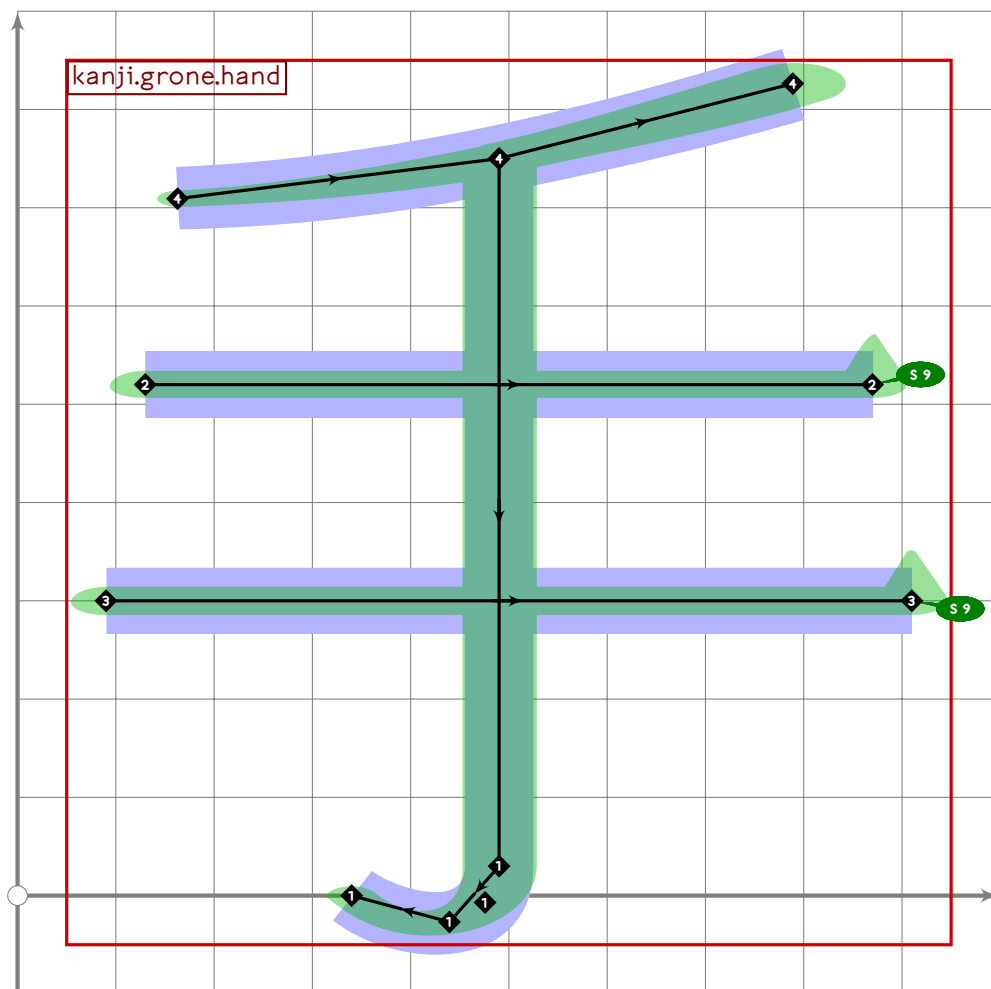


```

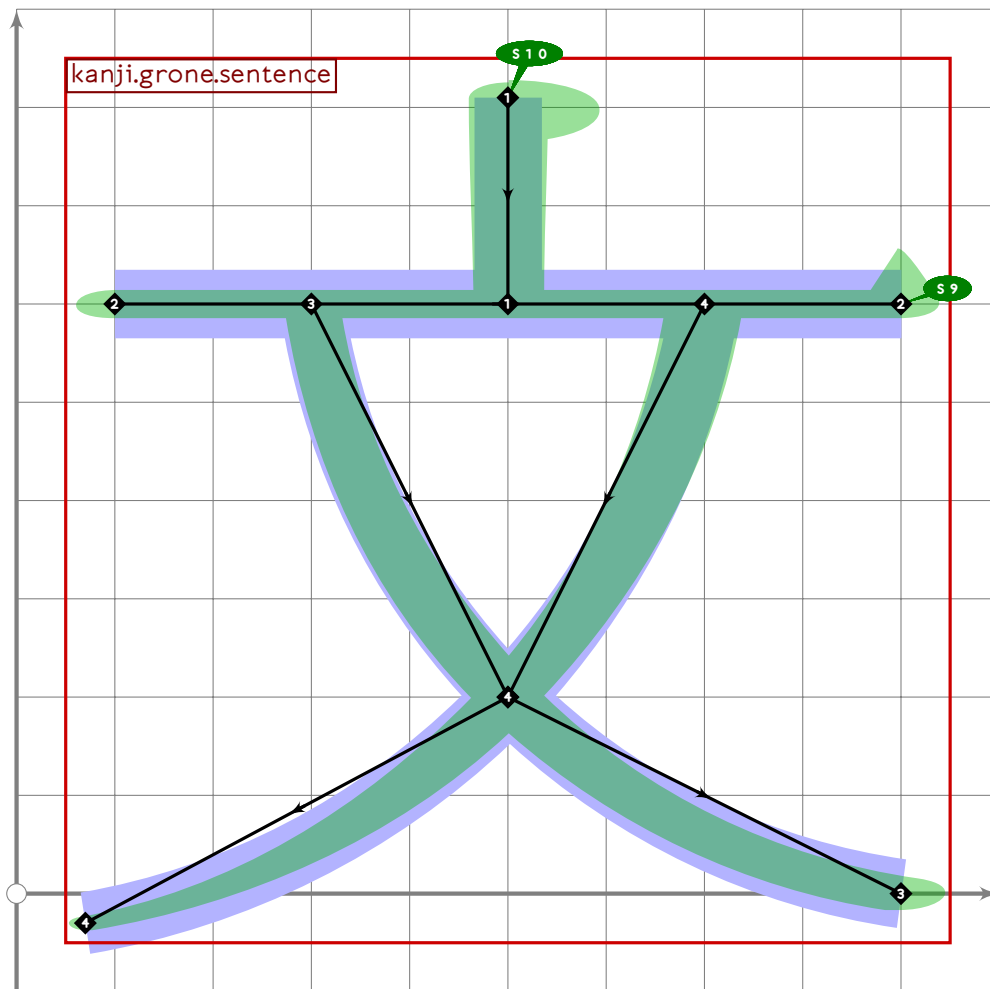
314 % shin/kokoro "heart"
315 begintsuglyph("uni2F3C";60);
316   kanji.grtwo.heart;
317   tsu_render;
318 endtsuglyph;
319

```

U+2F3F
tsuku.uni2F3F



```
320 % te "hand"  
321 begintsuglyph("uni2F3F",63);  
322   kanji.grone.hand;  
323   tsu_render;  
324 endtsuglyph;  
325
```

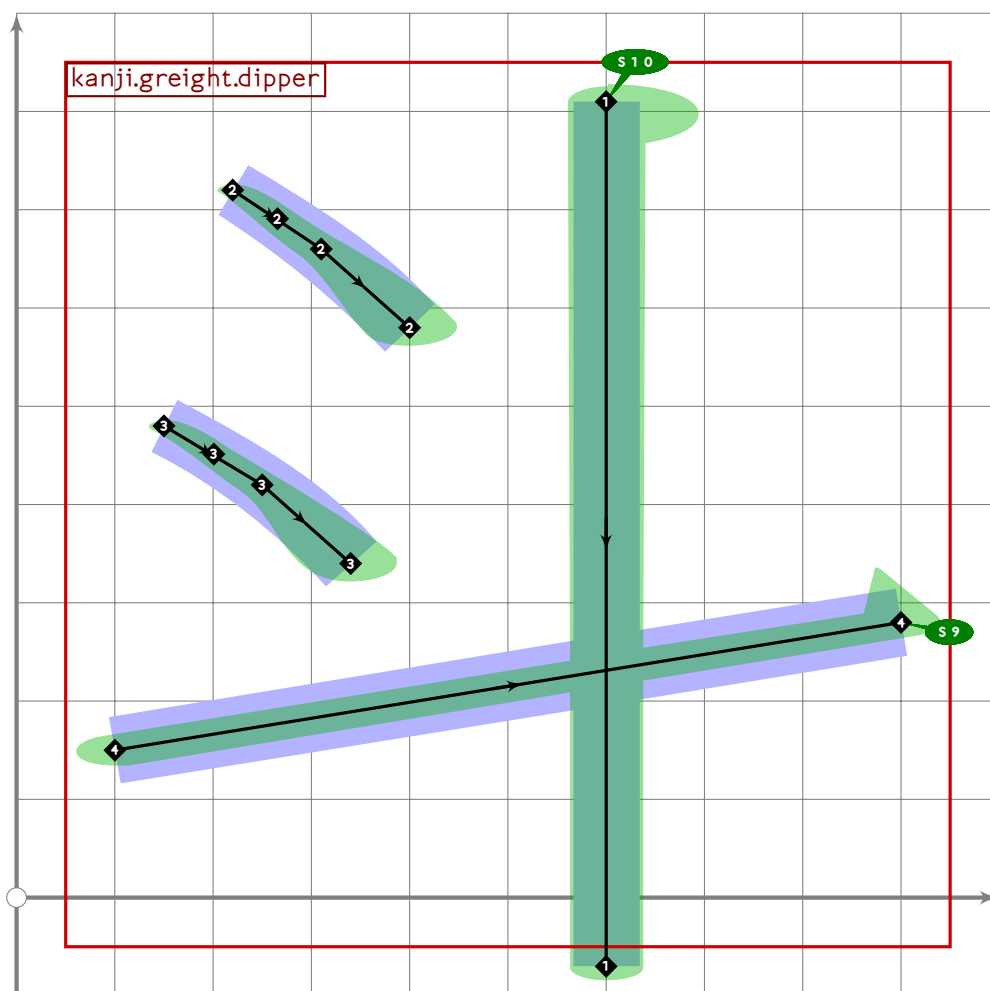



```

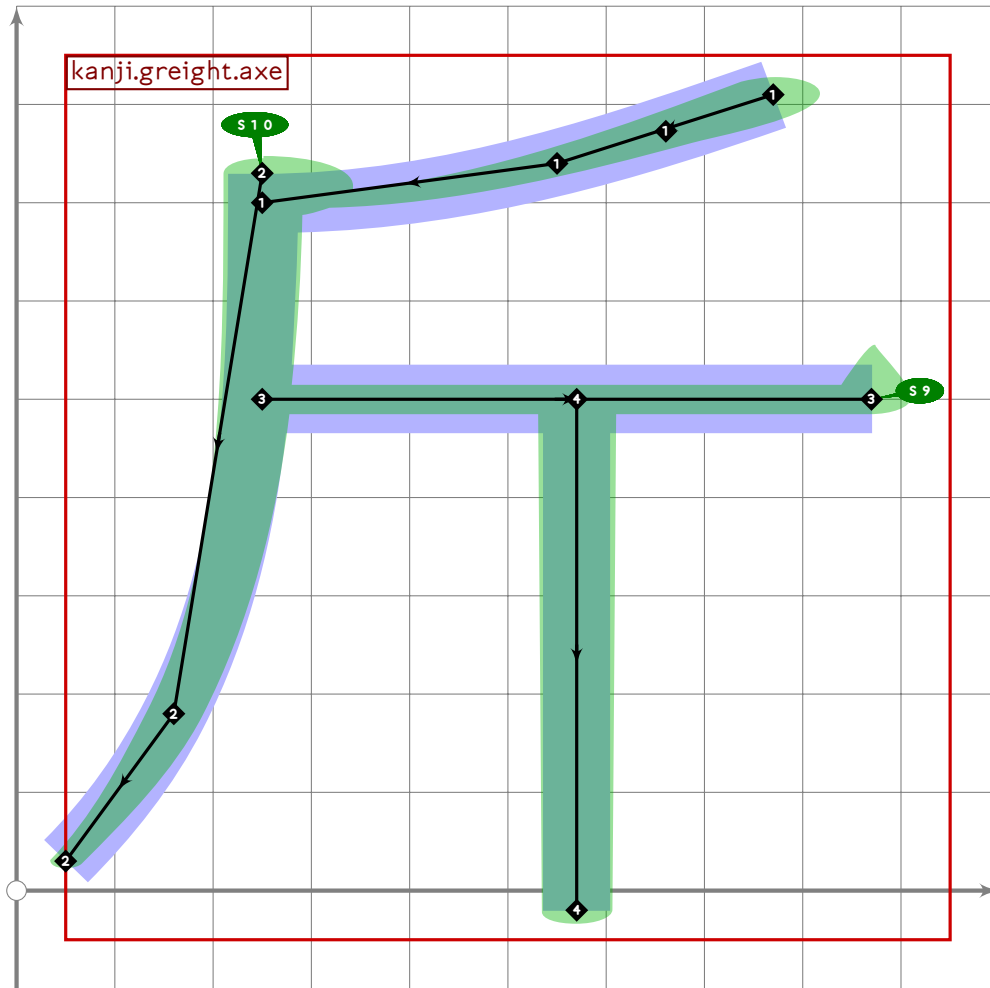
326 % bun/fumi "sentence"
327 begintsuglyph("uni2F42",66);
328   kanji.grone.sentence;
329   tsu_render;
330 endtsuglyph;
331

```

U+2F43
tsuku.uni2F43



```
332 % to/masu "dipper"  
333 begintsuglyph("uni2F43",67);  
334   kanji.greight.dipper;  
335   tsu_render;  
336 endtsuglyph;  
337
```

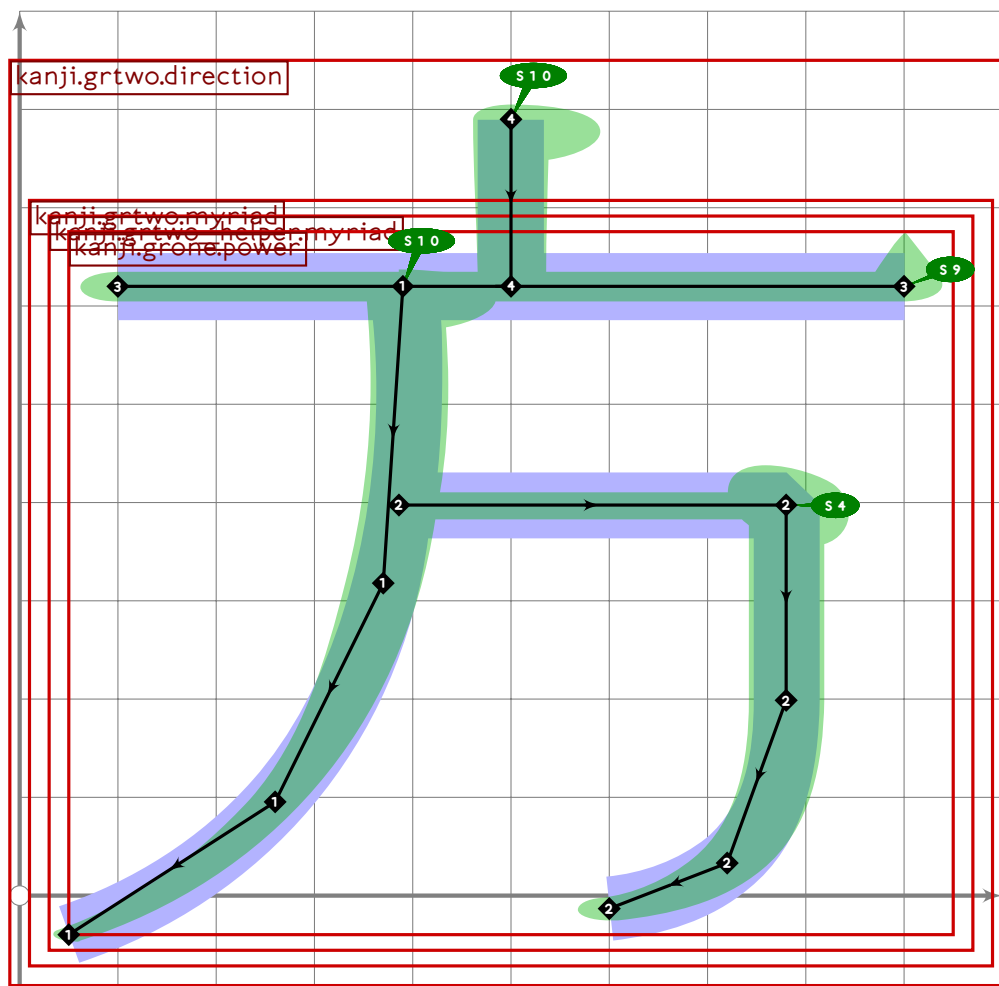


```

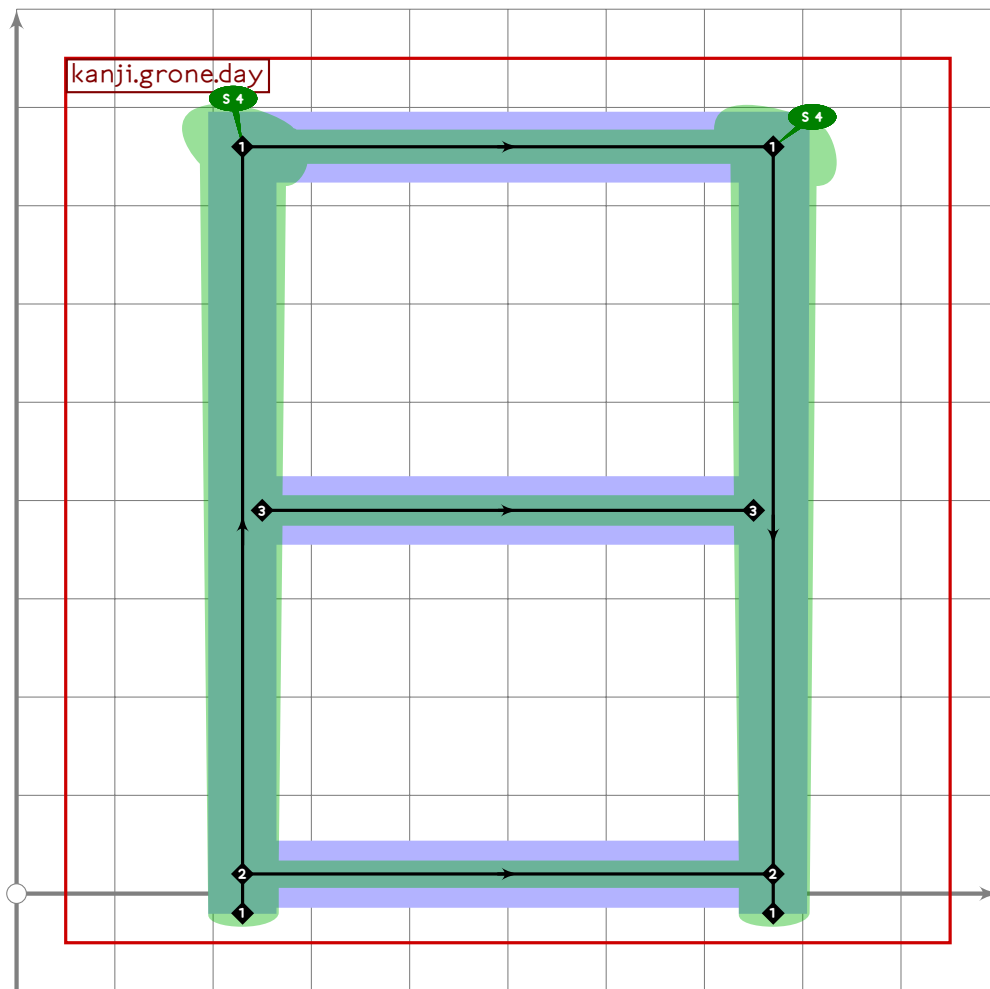
338 % kin/ono "axe"
339 begint Suglyph("uni2F44",68);
340   kanji.greight.axe;
341   tsu_render;
342 endtsuglyph;
343

```

U+2F45
tsuku.uni2F45



```
344 % hou/kata "direction" or "how to do it"
345 beginsuglyph("uni2F45",69);
346 kanji.grtwo.direction;
347 tsu_render;
348 endsuglyph;
349
```

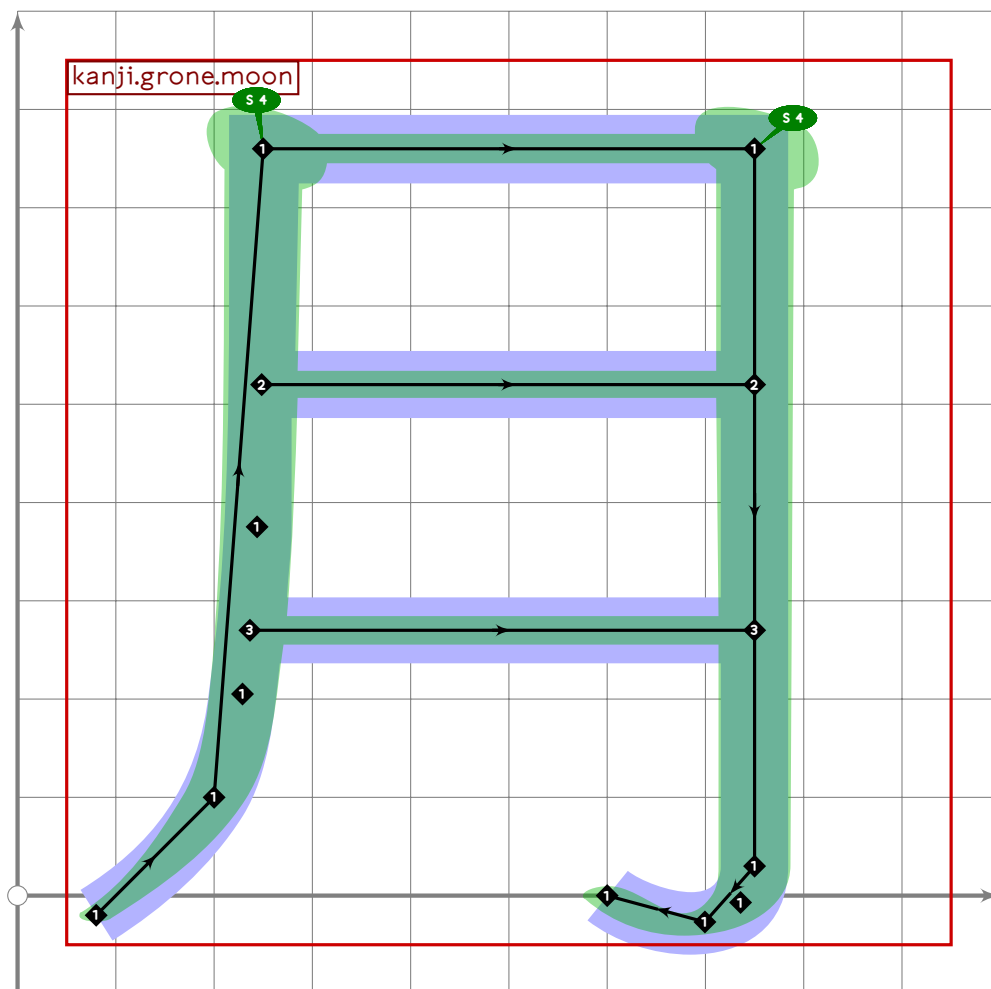


```

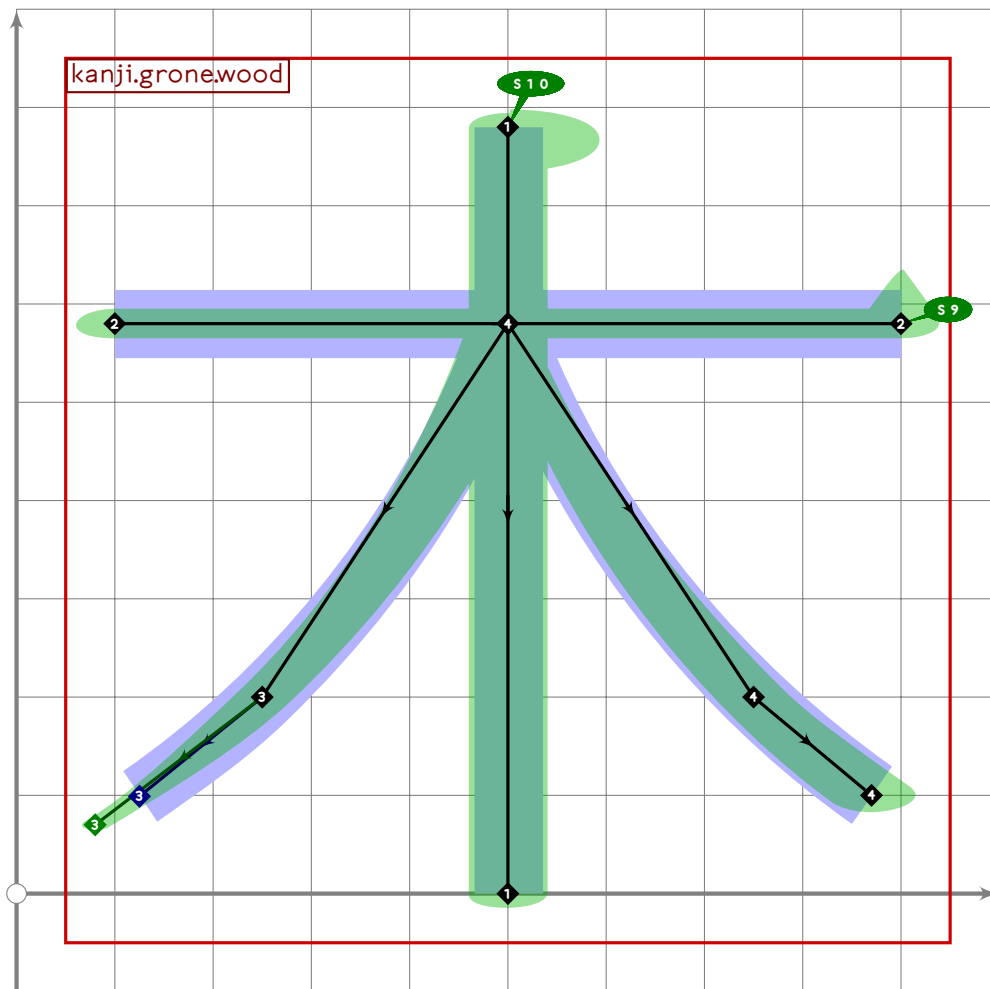
350 % hi/nichi "day"
351 begintsuglyph("uni2F47";71);
352   kanji.grone.day;
353   tsu_render;
354 endtsuglyph;
355

```

U+2F49
tsuku.uni2F49

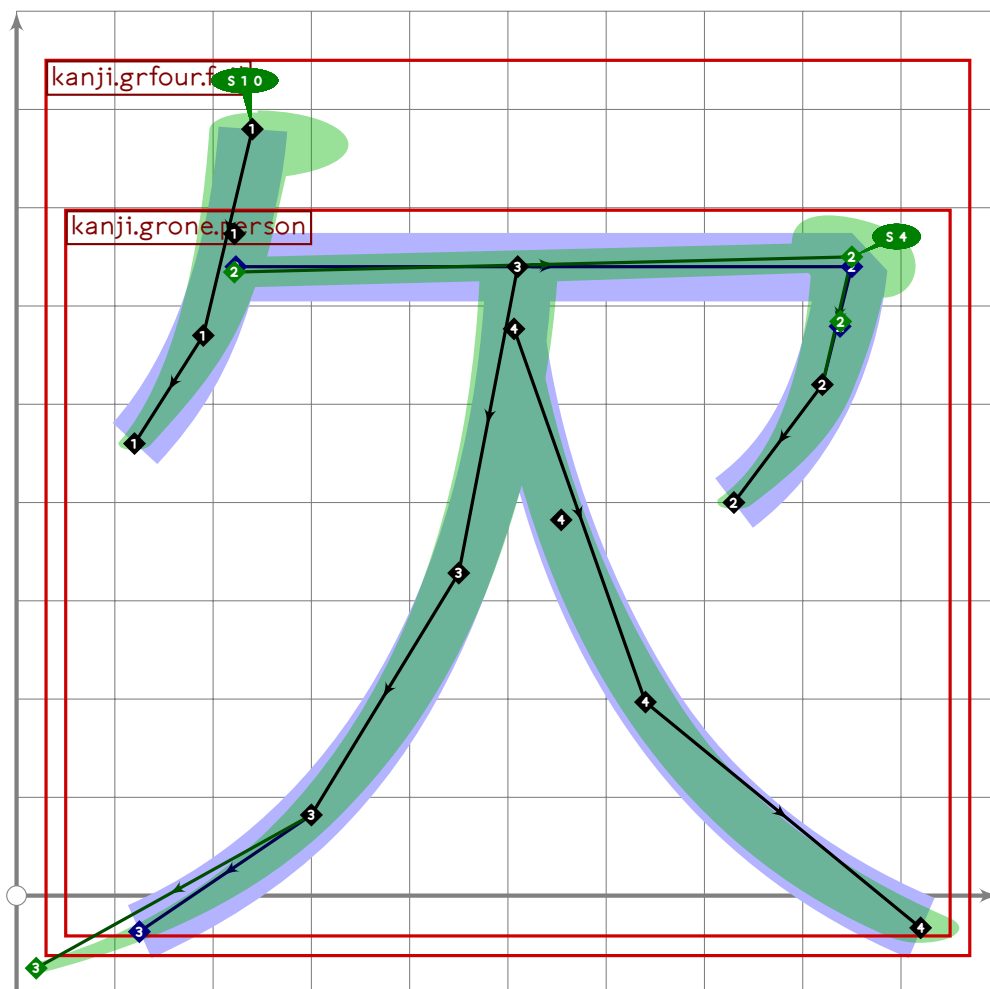


```
356 % tsuki/getsu "moon"  
357 begintsuglyph("uni2F49";73);  
358   kanji.grone.moon;  
359   tsu_render;  
360 endtsuglyph;  
361
```

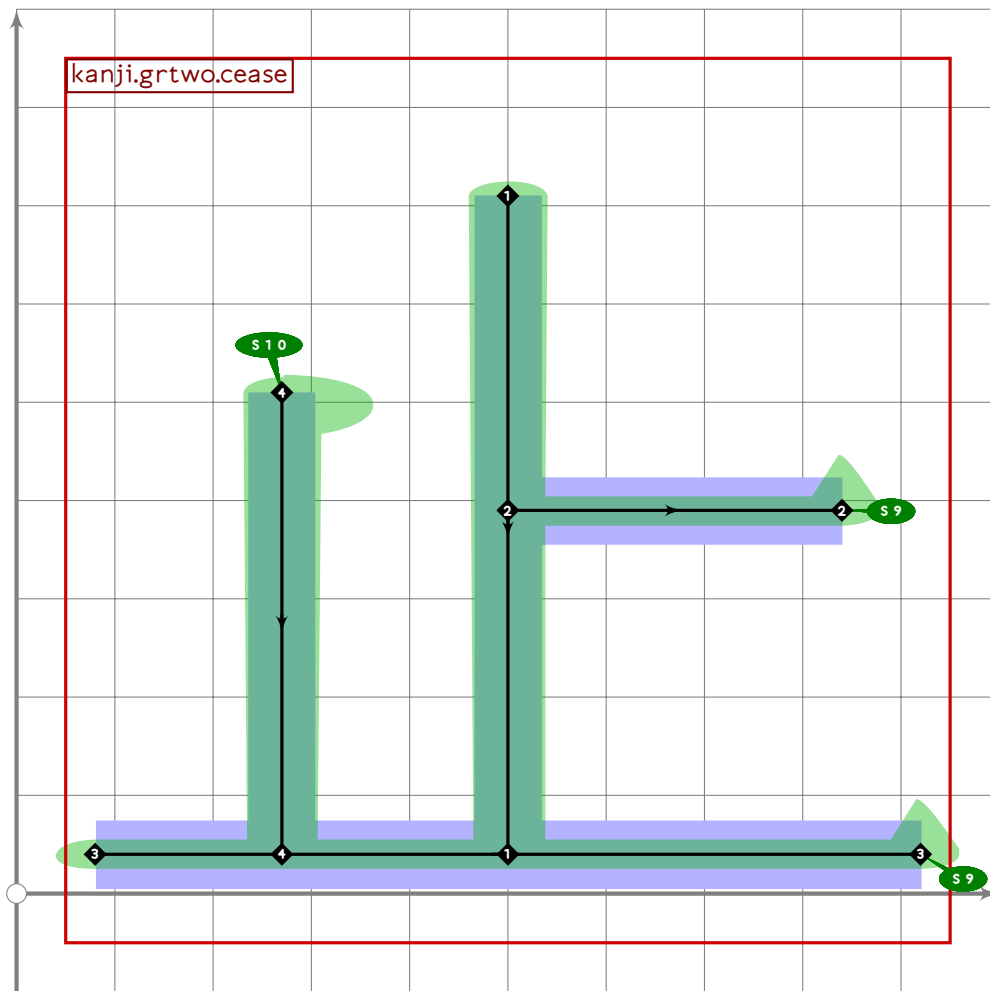


```
362 % ki "wood"  
363 begintsuglyph("uni2F4A;74);  
364   kanji.gronewood;  
365   tsu_render;  
366 endtsuglyph;  
367
```

U+2F4B
tsuku.uni2F4B



```
368 % ketsu/ka/akubi "fail" or "yawn"  
369 begintsuglyph("uni2F4B;75);  
370 kanji.grfour.fail;  
371 tsu_render;  
372 endtsuglyph;  
373
```

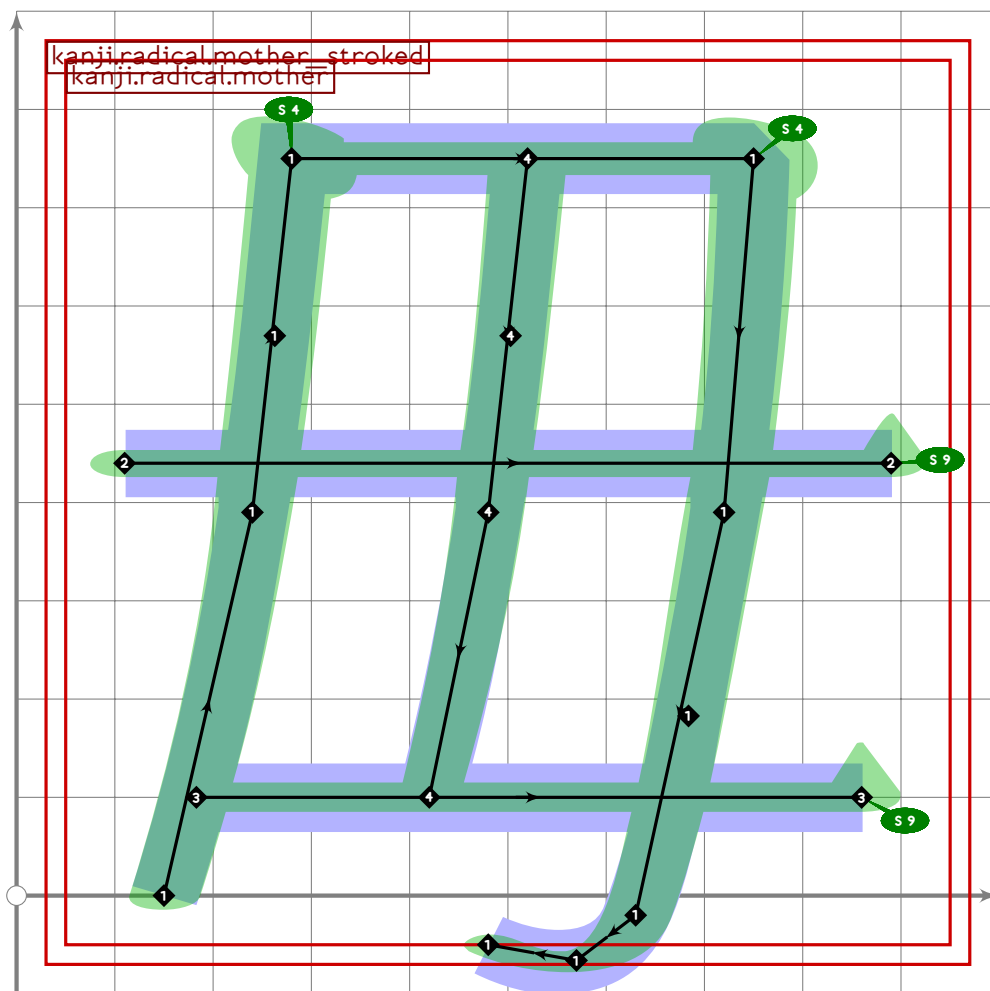



```

374 % shi/toma "stop"
375 begintsuglyph("uni2F4C",76);
376   kanji.grtwo.cease;
377   tsu_render;
378 endtsuglyph;
379

```

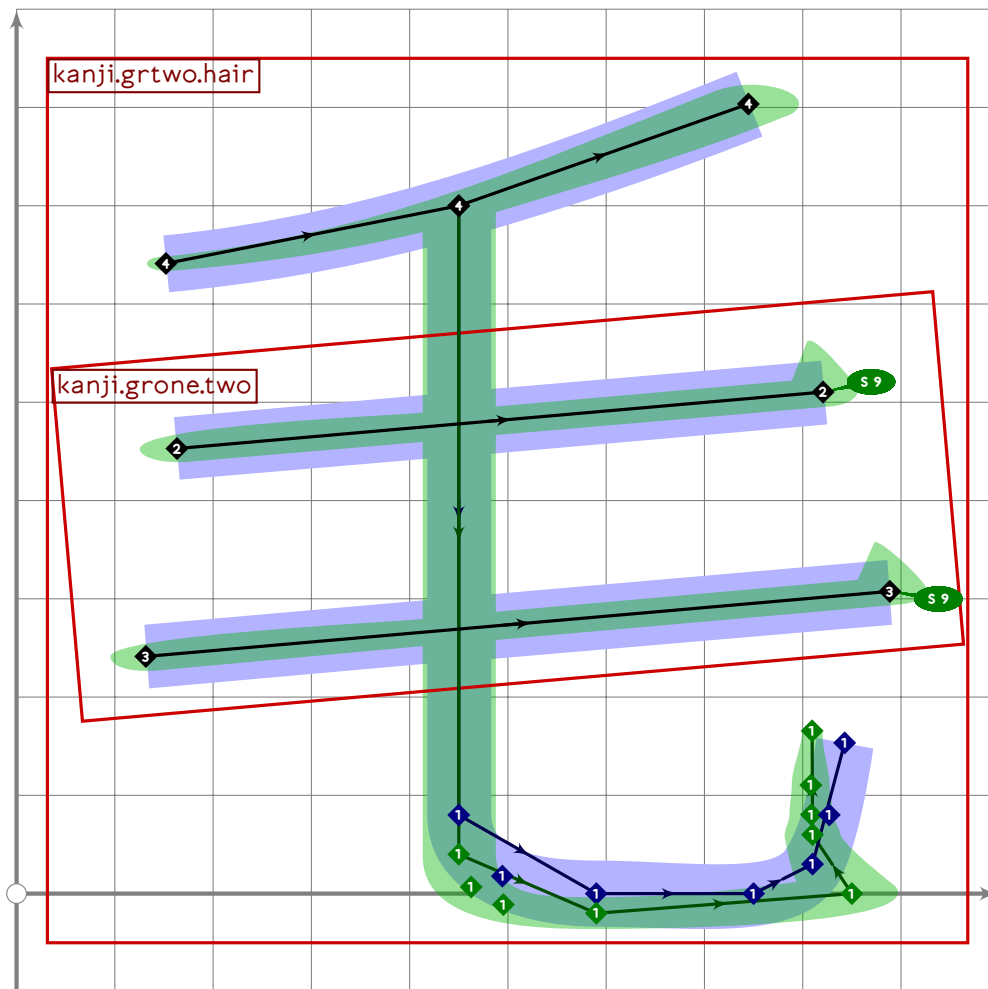
U+2F4F
tsuku.uni2F4F



```

380 % extra: mother radical, stroked version
381 beginsuglyph("uni2F4F";79);
382   kanji.radical.mother_stroked;
383   tsu_render;
384 endsuglyph;
385

```

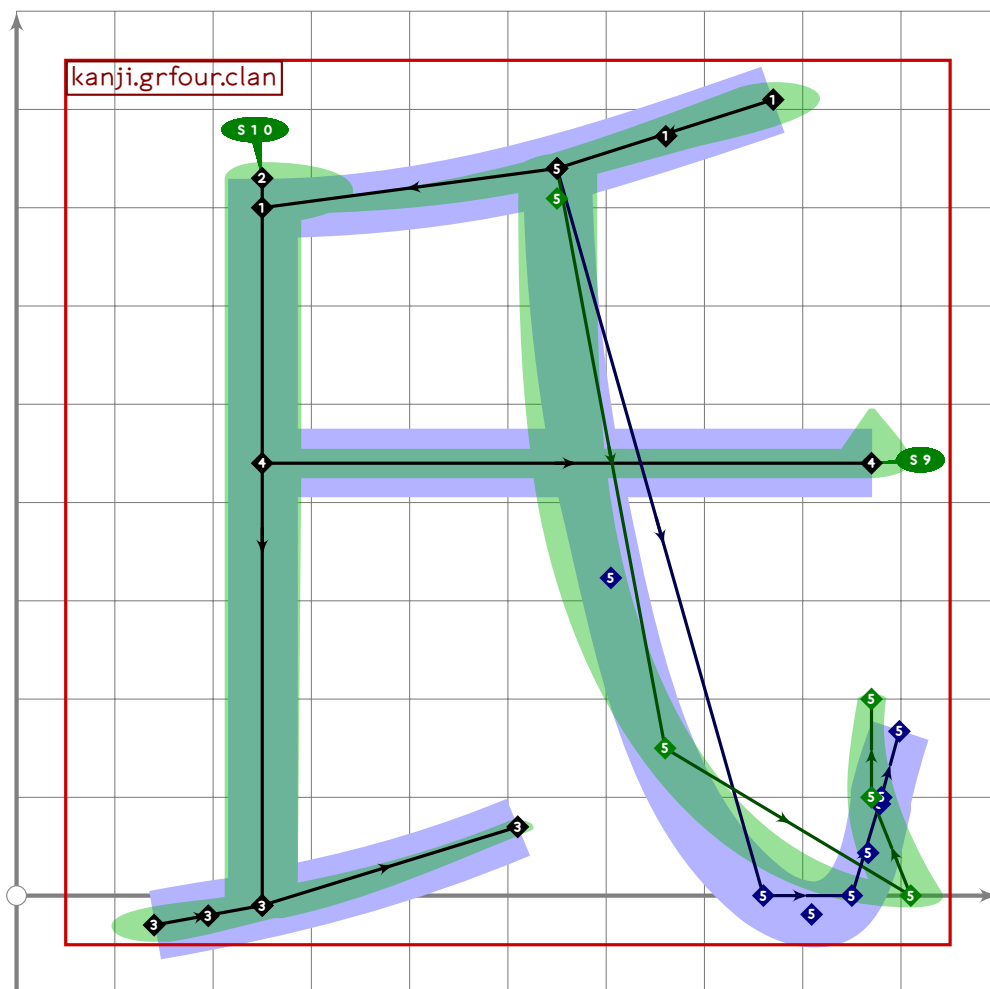


```

386 % mou/ke "hair"
387 begintsuglyph("uni2F51";81);
388   kanji.grtwo.hair;
389   tsu_render;
390 endtsuglyph;
391

```

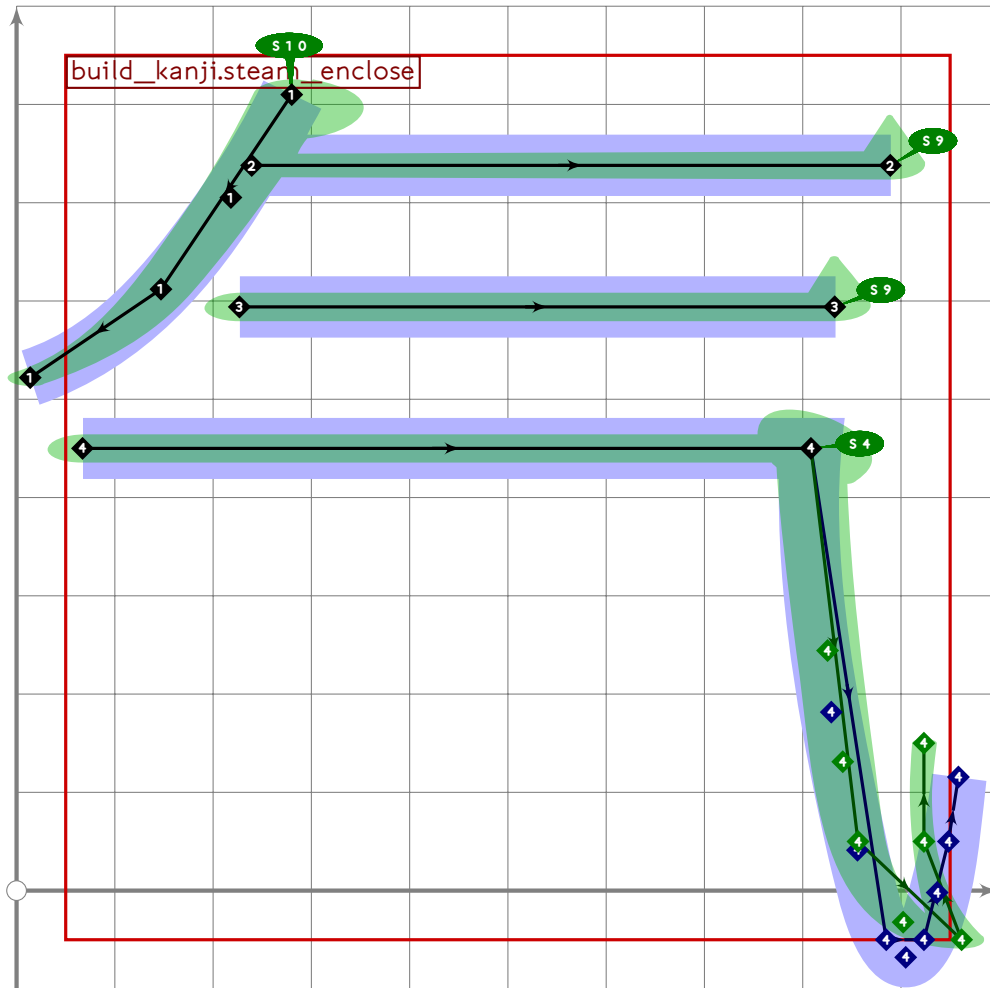
U+2F52
tsuku.uni2F52



```

392 % shi/uji "clan"
393 begint Suglyph("uni2F52";82);
394   kanji.grfour.clan;
395   tsu_render;
396 endtsuglyph;
397

```

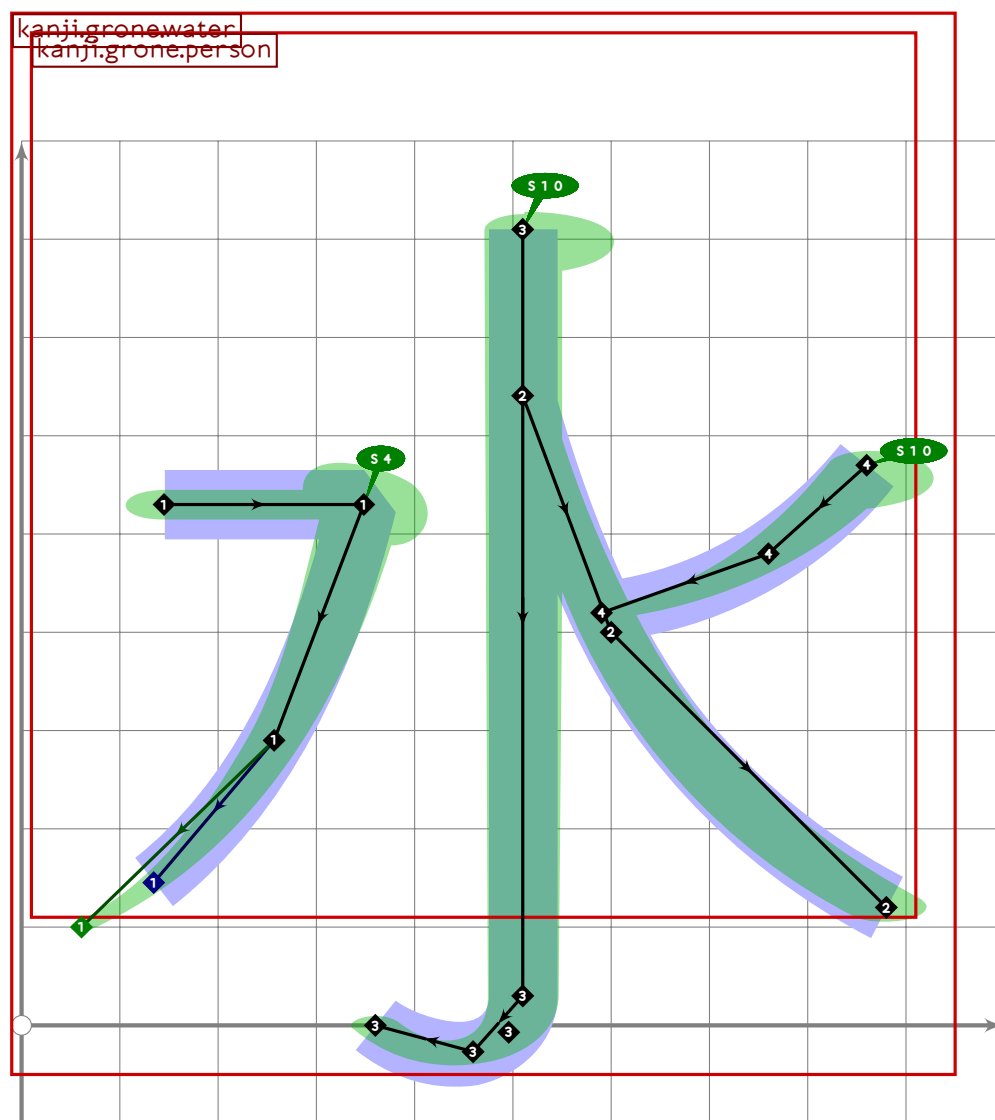


```

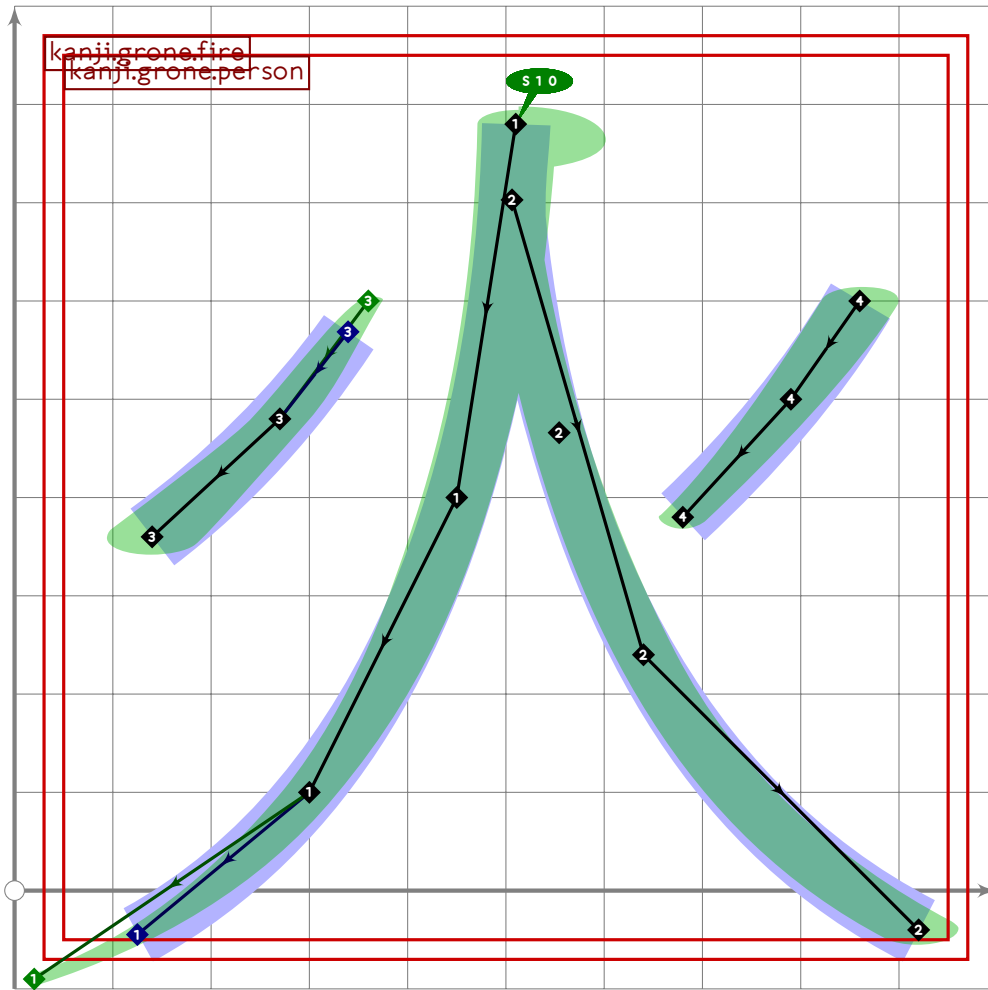
398 % sei/tada/machi "correct"
399 beginsuglyph("uni2F53";83);
400 build_kanji.steam_enclose((700,400))();
401 tsu_render;
402 endtsuglyph;
403

```

U+2F54
tsuku.uni2F54



```
404 % sui/mizu "water"  
405 begintsuglyph("uni2F54";84);  
406 kanji.gronewater;  
407 tsu_render;  
408 endtsuglyph;  
409
```

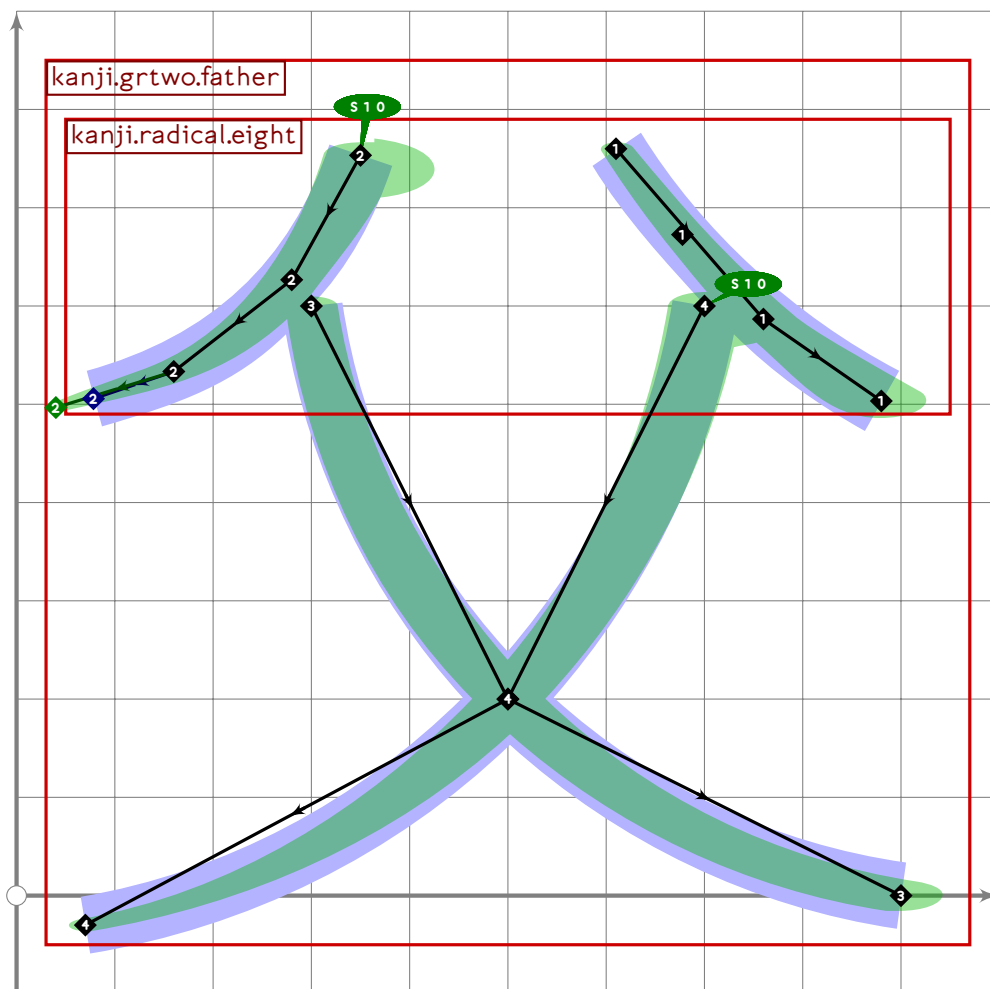


```

410 % hi/ka "fire"
411 begintsuglyph("uni2F55";85);
412   kanji.grone.fire;
413   tsu_render;
414 endtsuglyph;
415

```

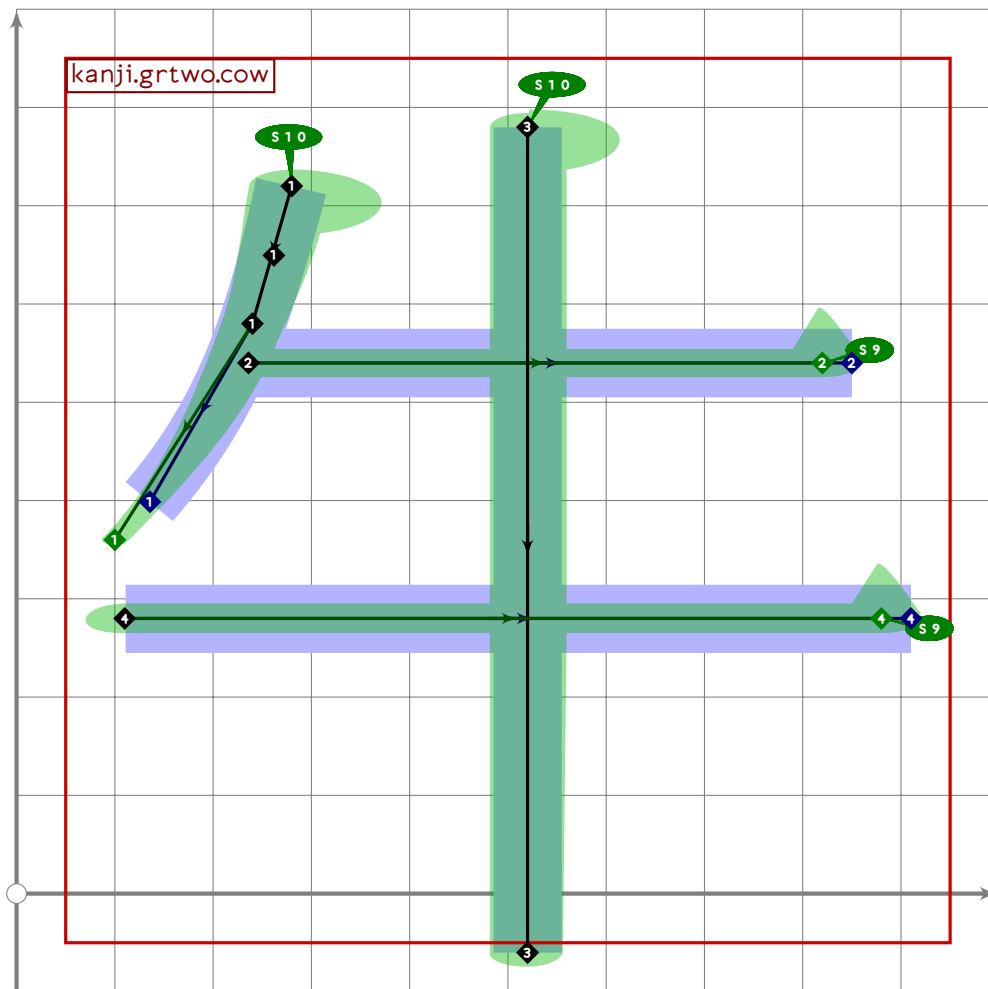
U+2F57
tsuku.uni2F57



```

416 % chichi "father"
417 begintsuglyph("uni2F57";87);
418   kanji.grtwo.father;
419   tsu_render;
420 endtsuglyph;
421

```

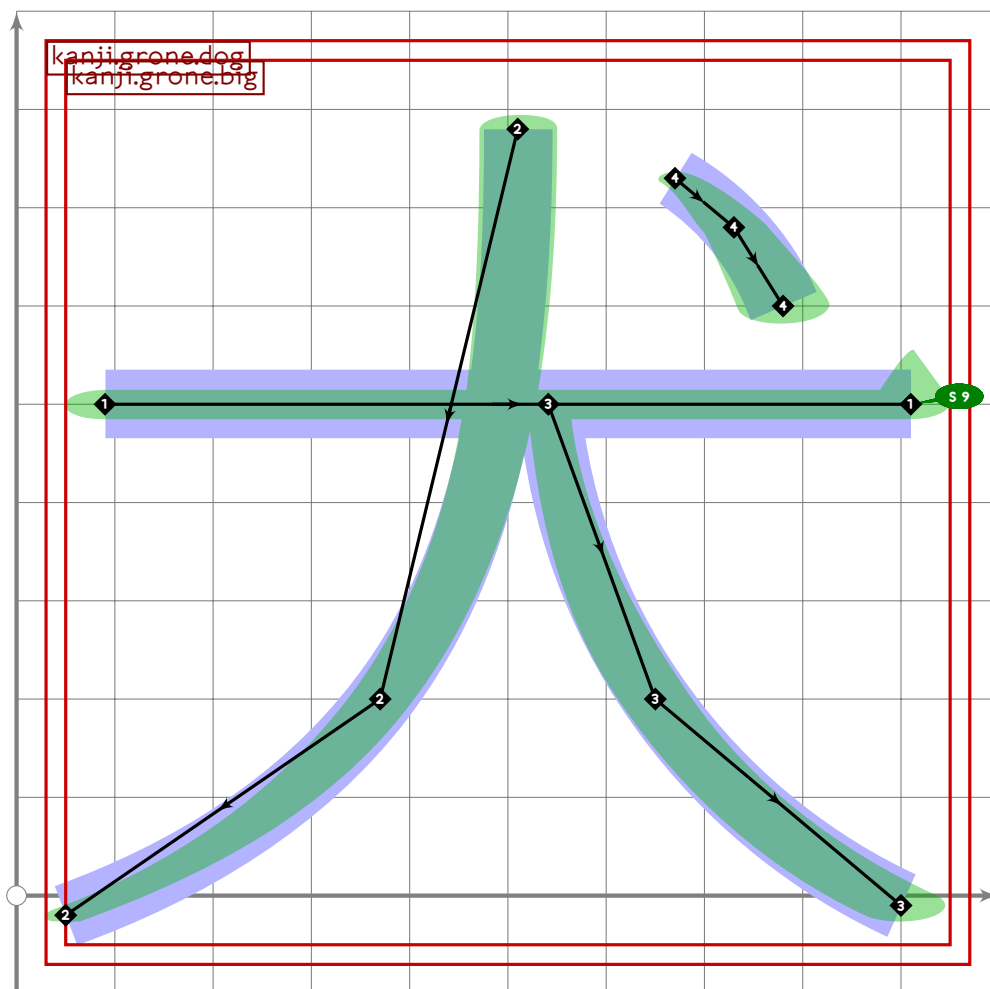



```

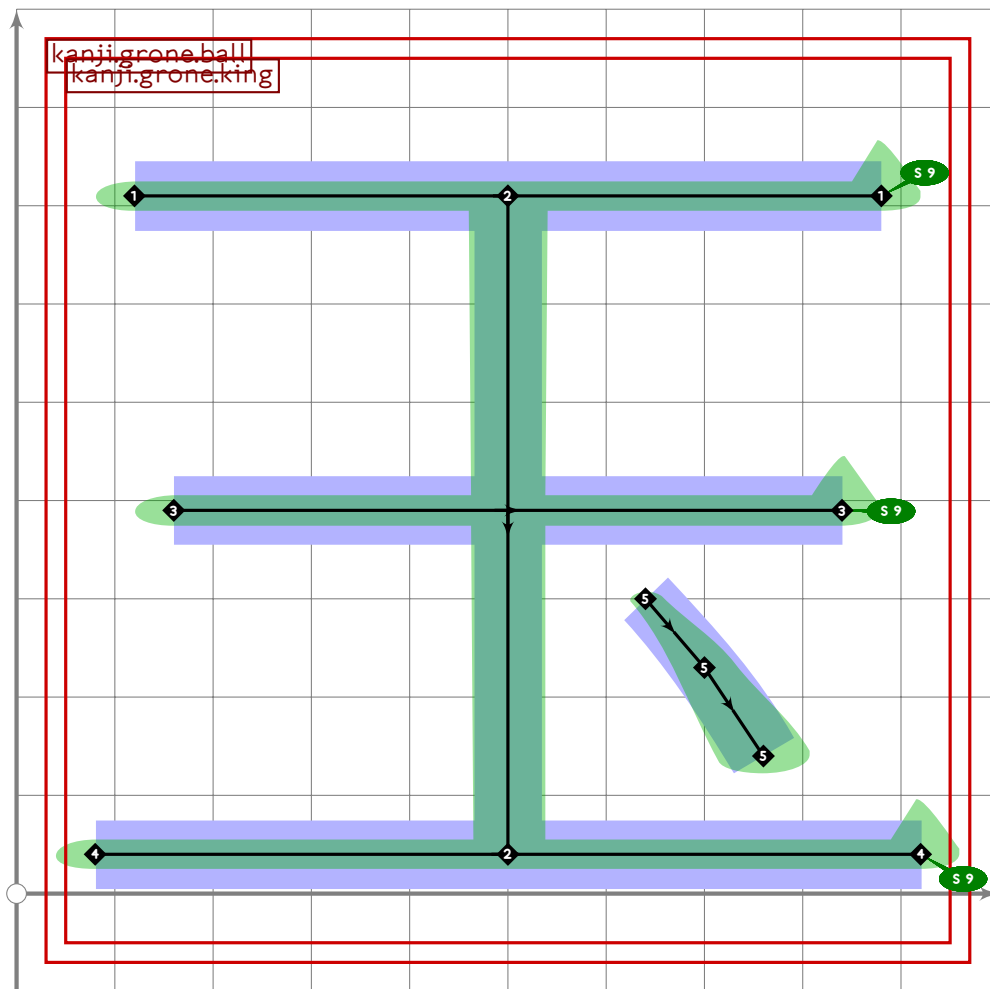
422 % kyu/ushi "cow"
423 begintsuglyph("uni2F5C";92);
424   kanji.grtwo.cow;
425   tsu_render;
426 endtsuglyph;
427

```

U+2F5D
tsuku.uni2F5D



```
428 % inu "dog"  
429 begintsuglyph("uni2F5D",93);  
430   kanji.grone.dog;  
431   tsu_render;  
432 endtsuglyph;  
433
```

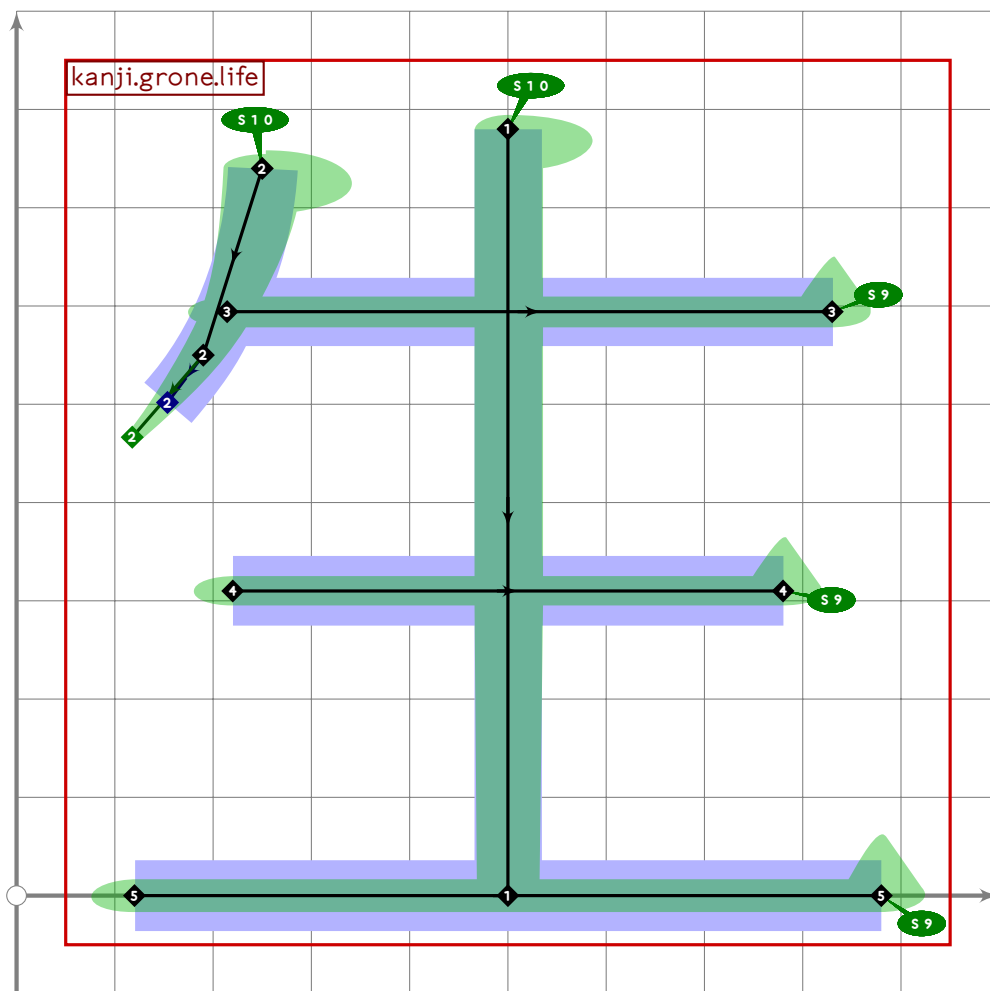


```

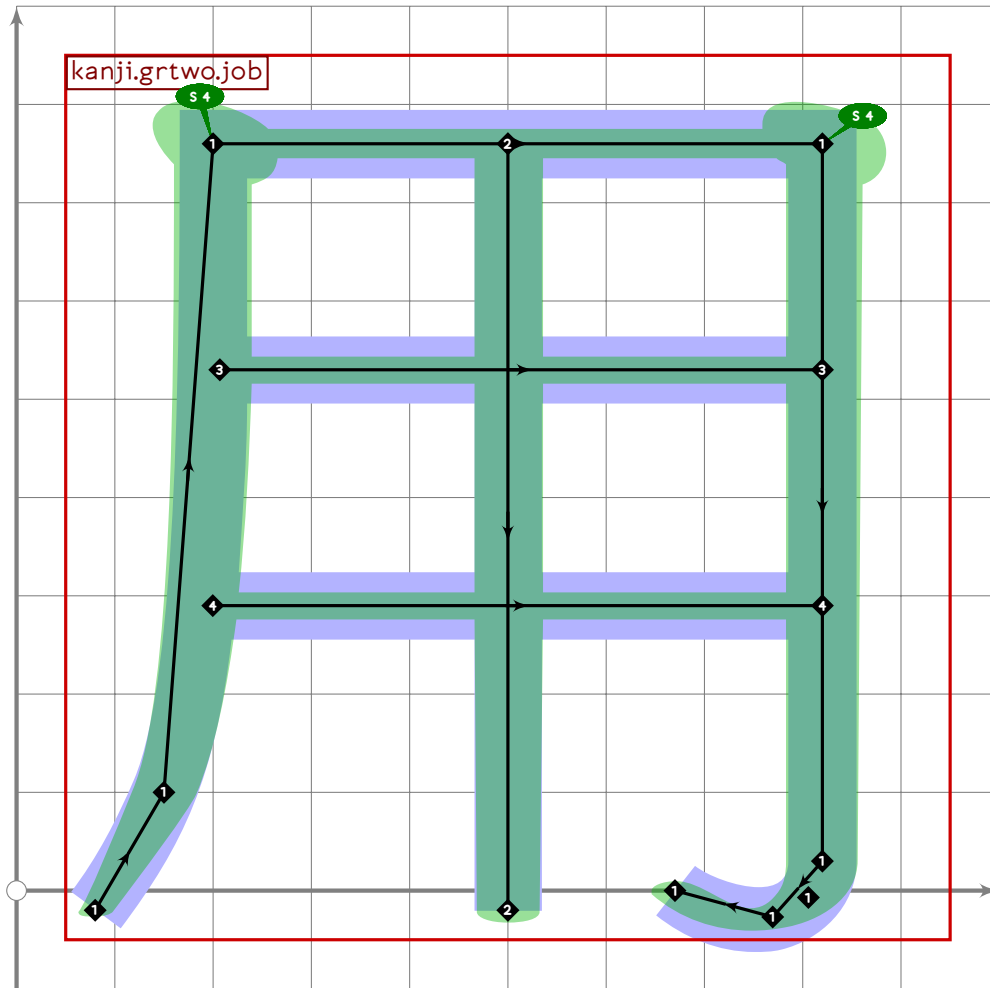
434 % gyoku/tama "ball" or "precious"
435 beginsuglyph("uni2F5F",95);
436   kanji.grone.ball;
437   tsu_render;
438 endsuglyph;
439

```

U+2F63
tsuku.uni2F63

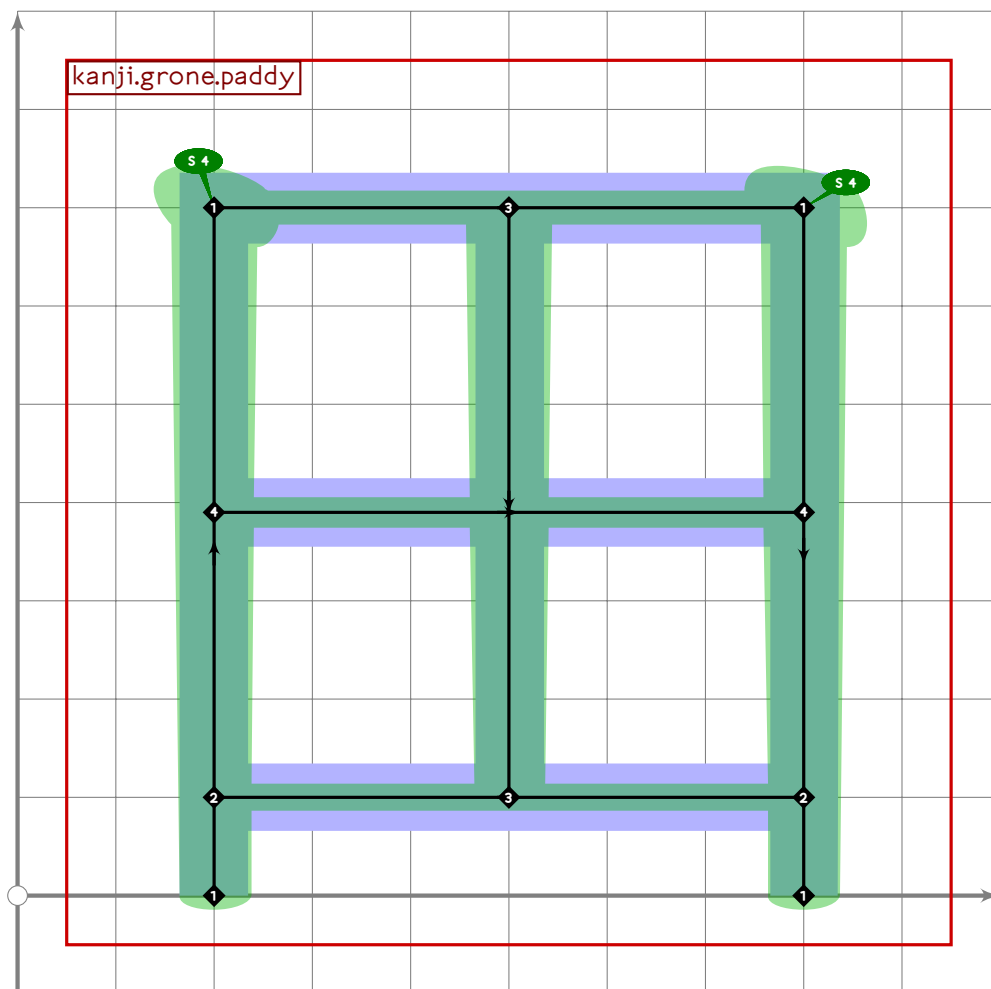


```
440 % sei/ki "life"  
441 begintsuglyph("uni2F63";99);  
442   kanji.grone.life;  
443   tsu_render;  
444 endtsuglyph;  
445
```

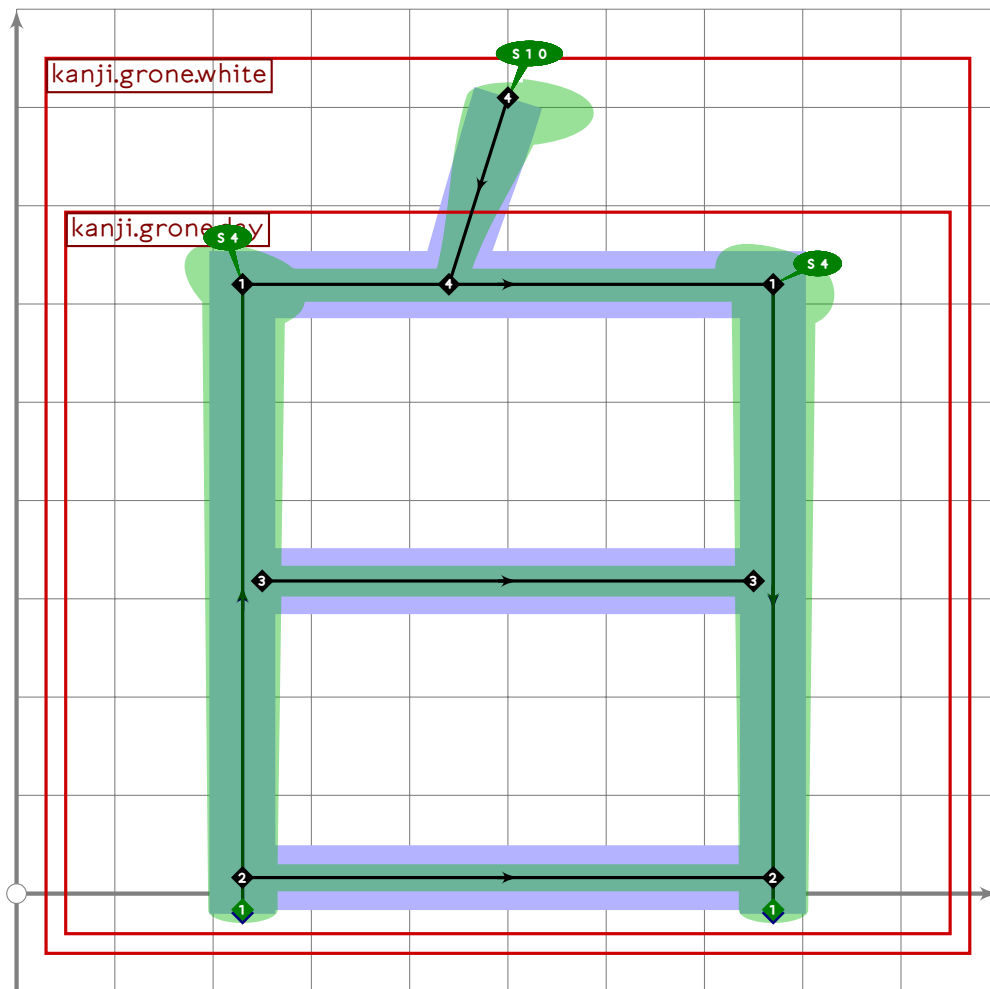


```
446 % you/mochi "job"  
447 begintsuglyph("uni2F64";100);  
448   kanji.grtwo.job;  
449   tsu_render;  
450 endtsuglyph;  
451
```

U+2F65
tsuku.uni2F65



```
452 % ta "rice paddy"  
453 begintsuglyph("uni2F65",101);  
454   kanji.grone.paddy;  
455   tsu_render;  
456 endtsuglyph;  
457
```

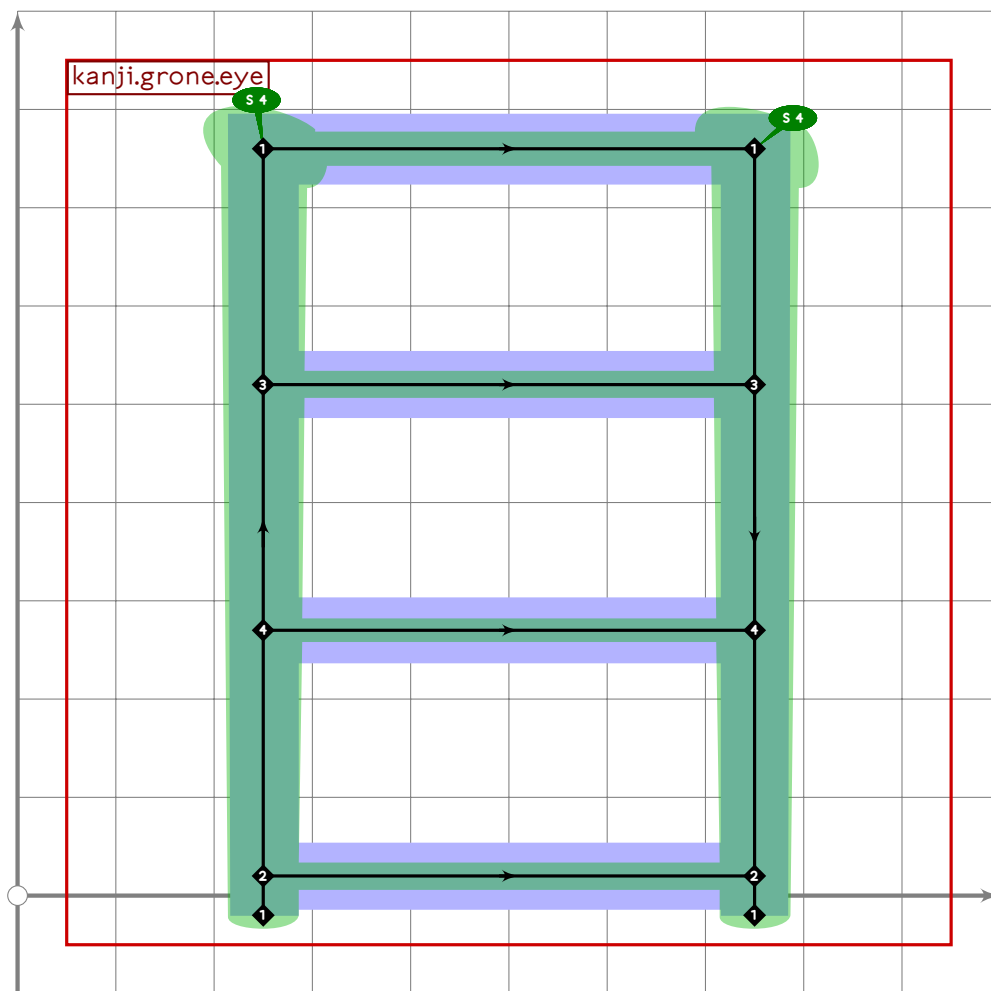


```

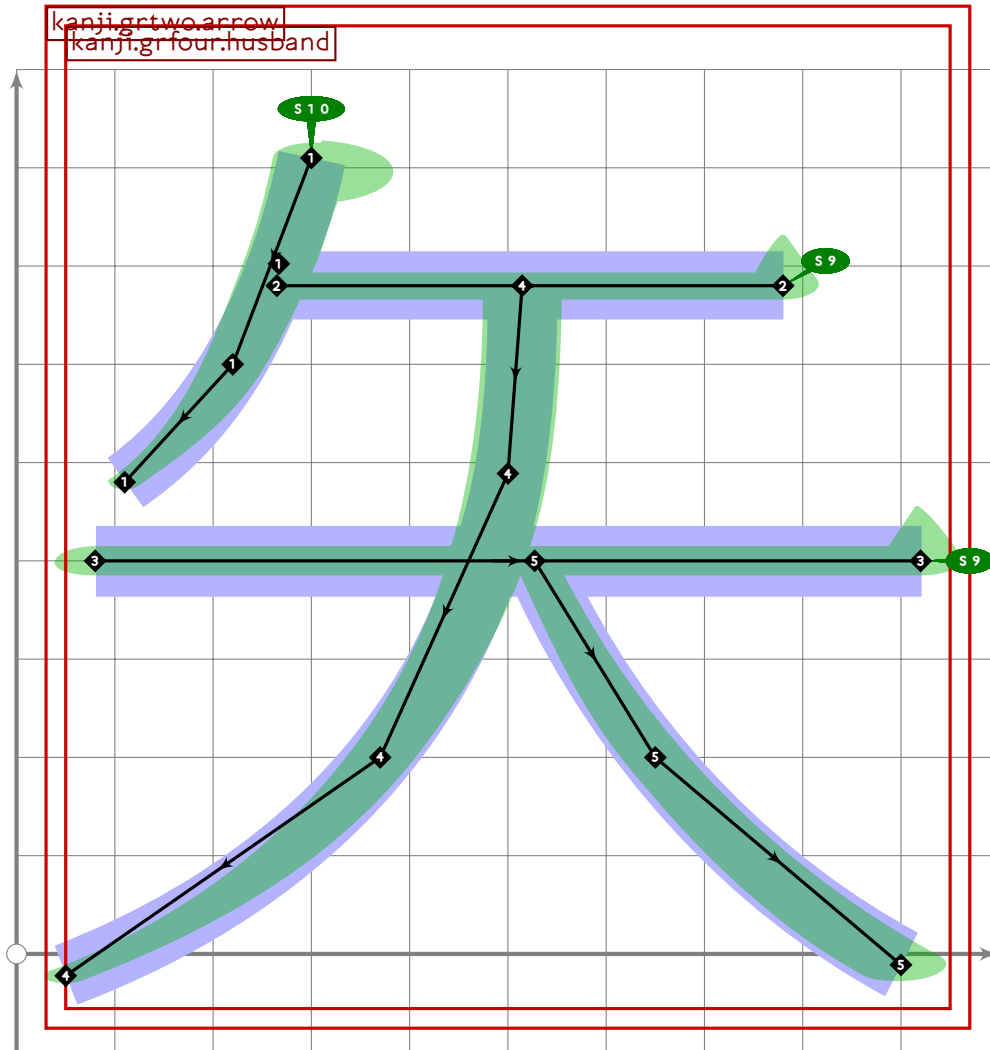
458 % shiro "white"
459 begintsuglyph("uni2F69";105);
460   kanji.grone.white;
461   tsu_render;
462 endtsuglyph;
463

```

U+2F6C
tsuku.uni2F6C



```
464 % moku/me "eye"  
465 begintsuglyph("uni2F6C",108);  
466   kanji.grone.eye;  
467   tsu_render;  
468 endtsuglyph;  
469
```

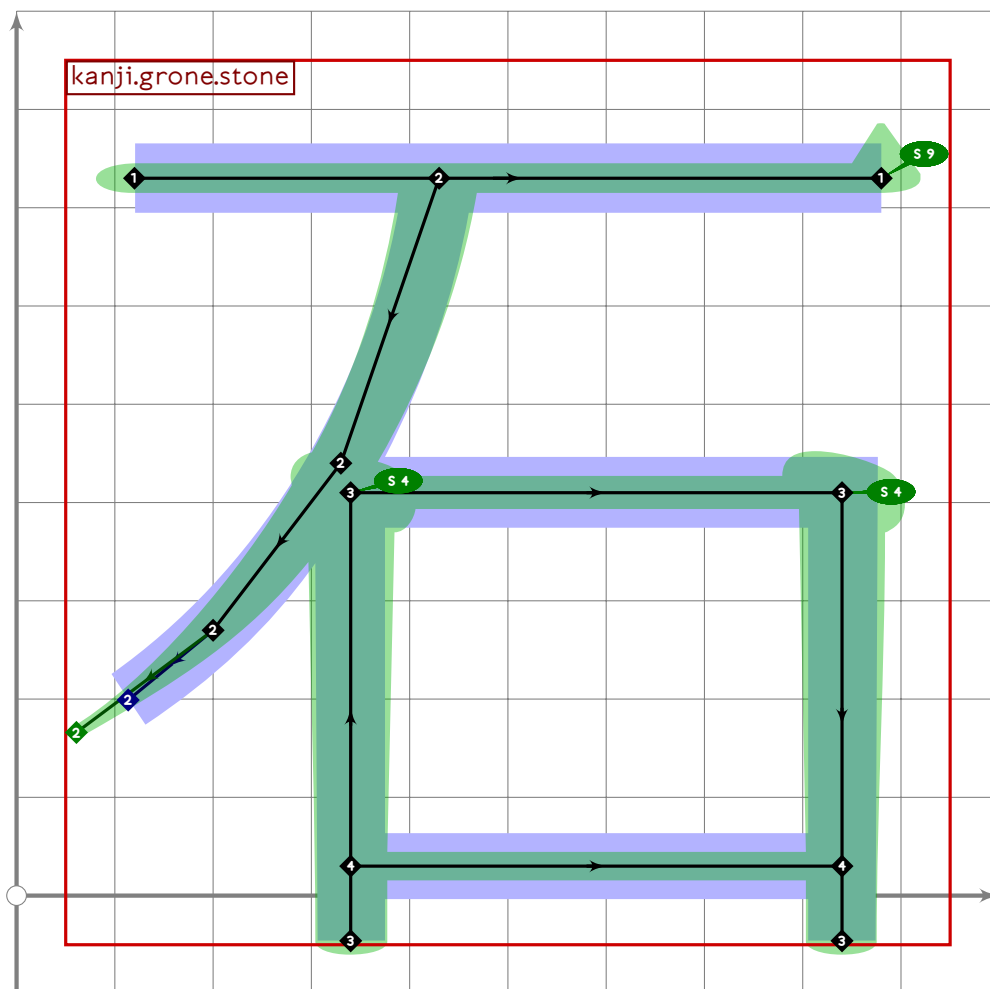



```

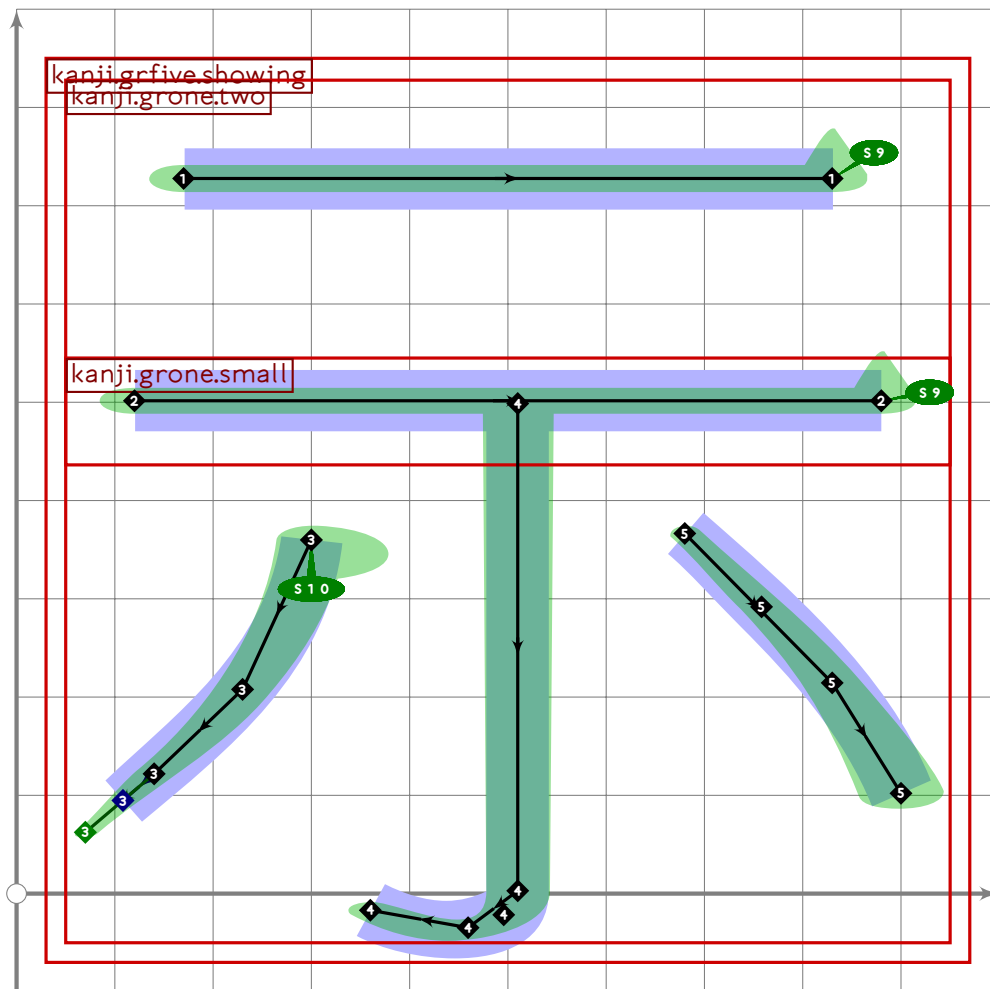
470 % shi/ya "arrow"
471 begintsuglyph("uni2F6E";110);
472   kanji.grtwo.arrow;
473   tsu_render;
474 endtsuglyph;
475

```

U+2F6F
tsuku.uni2F6F



```
476 % seki/ishi "stone"  
477 begintsuglyph("uni2F6F",111);  
478   kanji.grone.stone;  
479   tsu_render;  
480 endtsuglyph;  
481
```

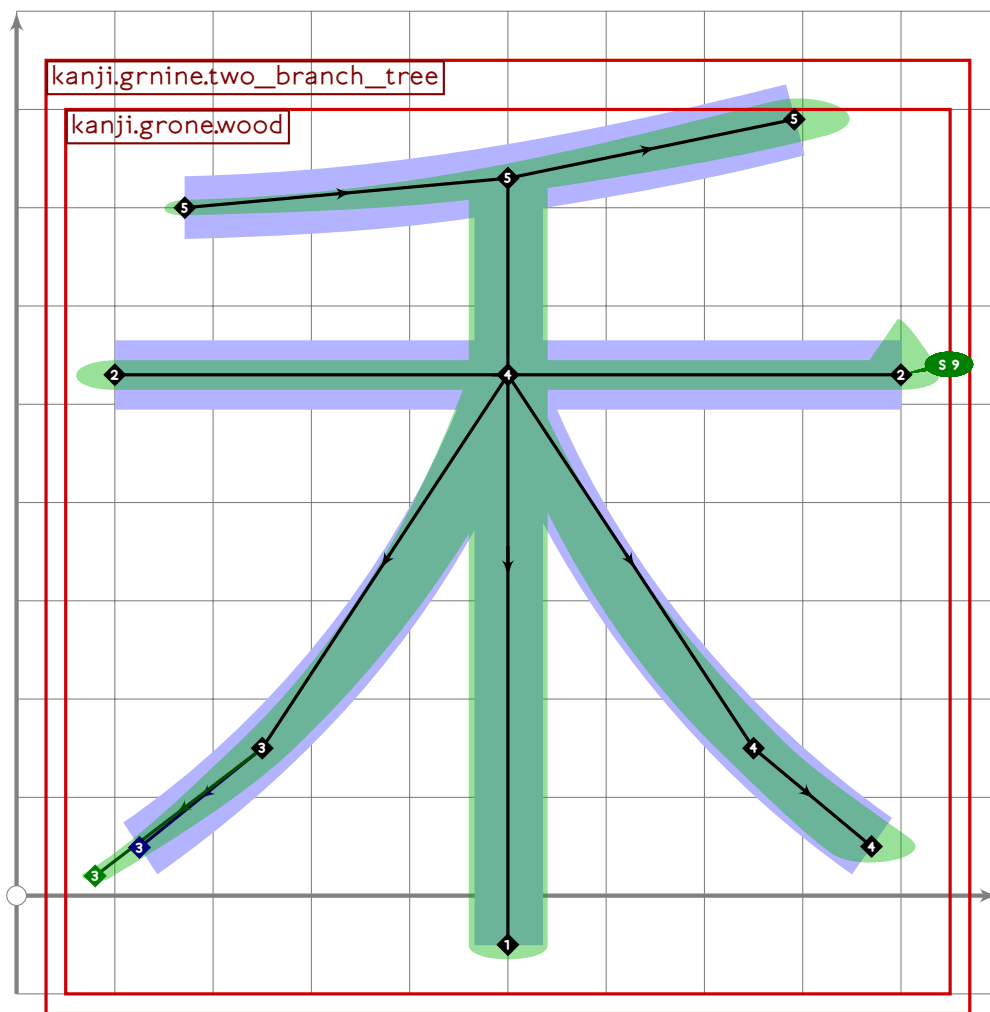


```

482 % ji/shime "show" (also older radical form)
483 begint Suglyph("uni2F70",112);
484   kanji.grfive.showing;
485   tsu_render;
486 endtsuglyph;
487

```

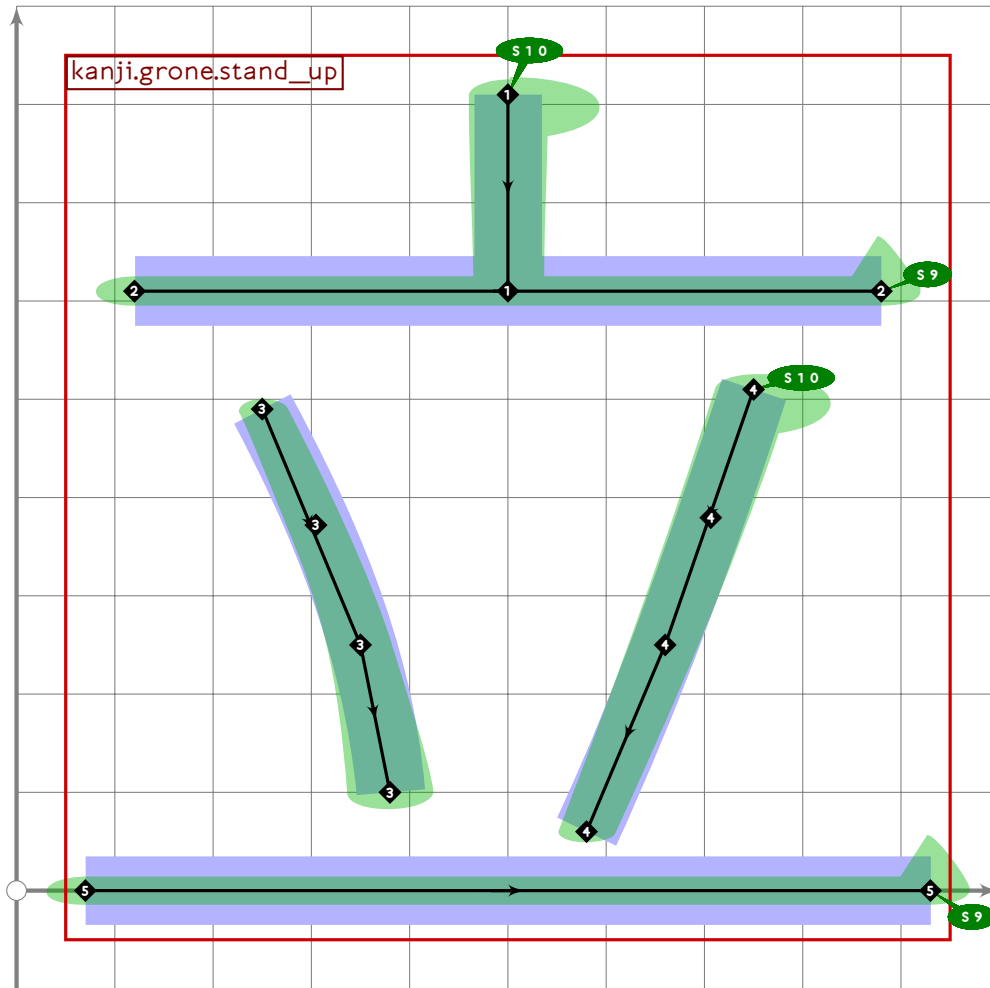
U+2F72
tsuku.uni2F72



```

488 % ka/ine little meaning by itself, called "two-branch tree" as a radical
489 begint Suglyph("uni2F72",114);
490   kanji.grnine.two_branch_tree;
491   tsu_render;
492 endtsuglyph;
493

```

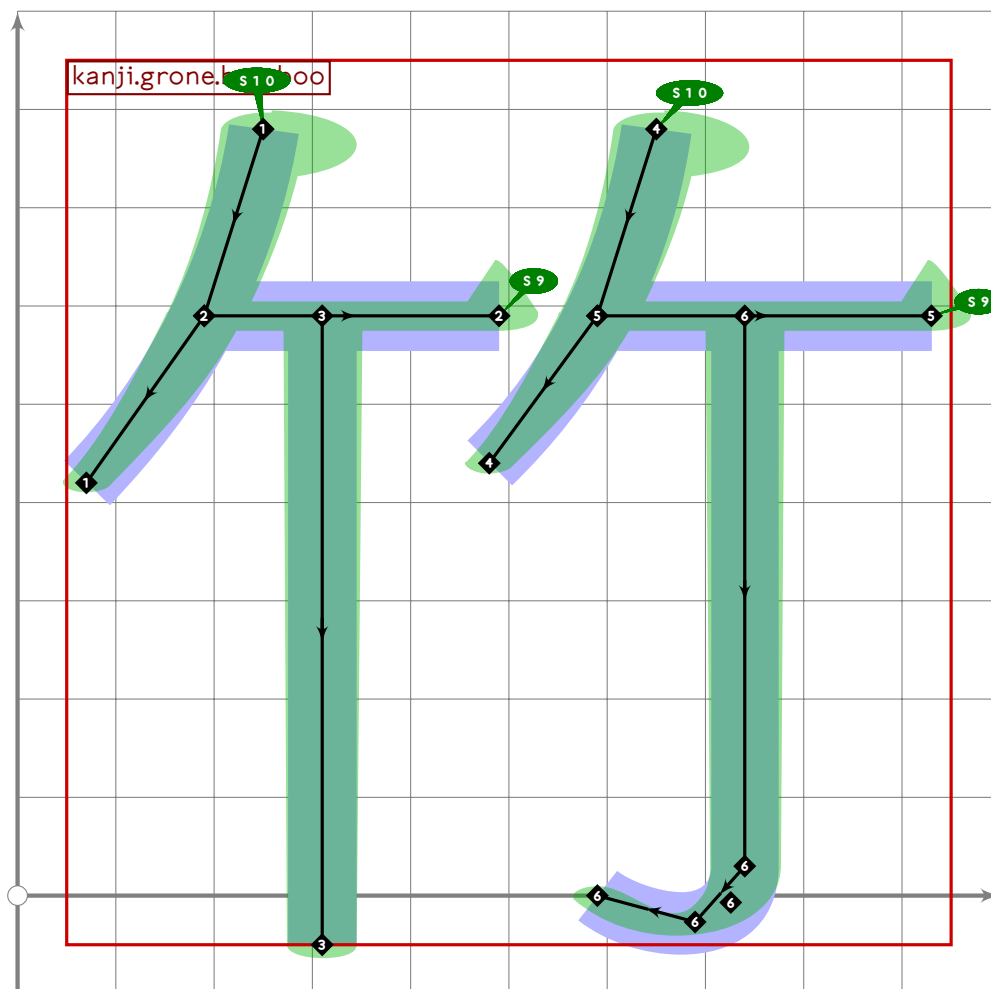


```

494 % ta "stand up"
495 begintsuglyph("uni2F74",116);
496   kanji.grone.stand_up;
497   tsu_render;
498 endtsuglyph;
499

```

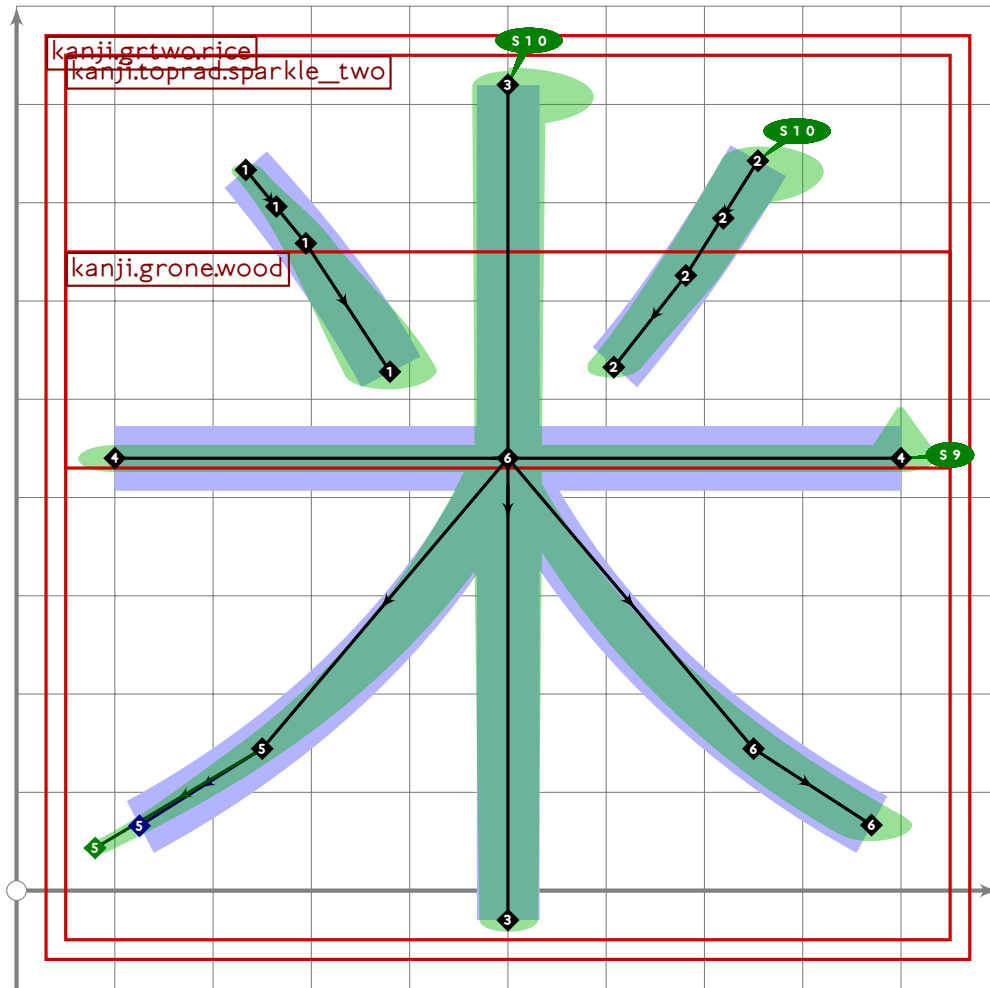
U+2F75
tsuku.uni2F75



```

500 % chiku/take "bamboo"
501 begintsuglyph("uni2F75";117);
502   kanji.grone.bamboo;
503   tsu_render;
504 endtsuglyph;
505

```

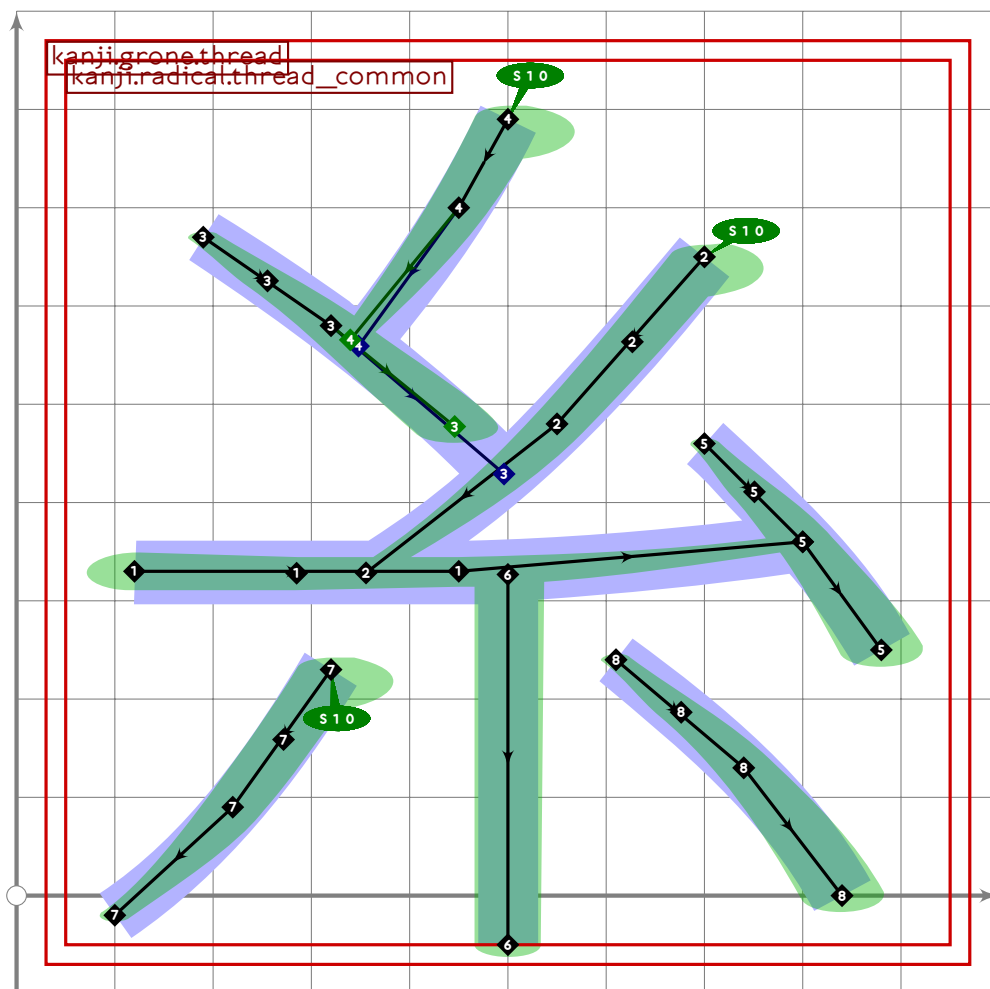


```

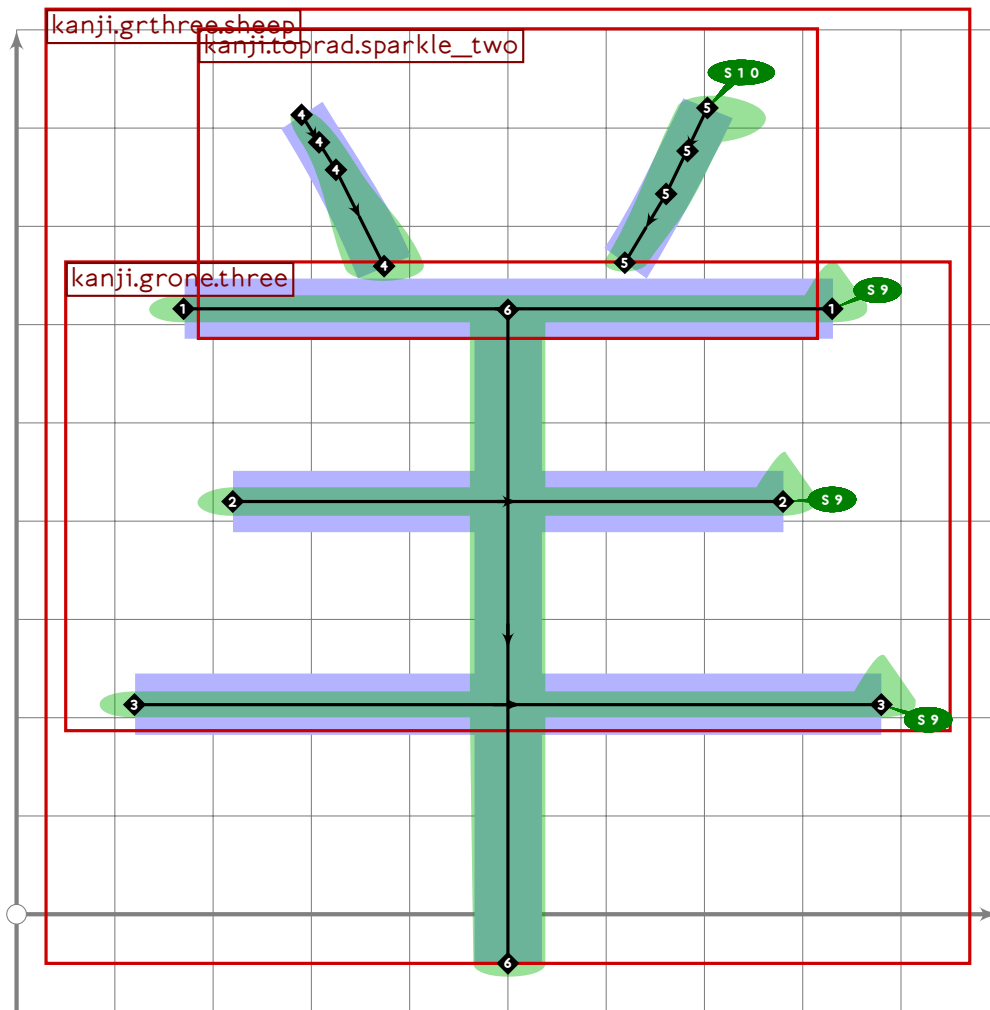
506 % bei/kome "rice", also "USA" and "metre"
507 beginsuglyph("uni2F76",118);
508   kanji.grt.two.rice;
509   tsu_render;
510 endsuglyph;
511

```

U+2F77
tsuku.uni2F77



```
512 % shi/ito "thread"  
513 beginsuglyph("uni2F77";119);  
514   kanji.grone.thread;  
515   tsu_render;  
516 endsuglyph;  
517
```

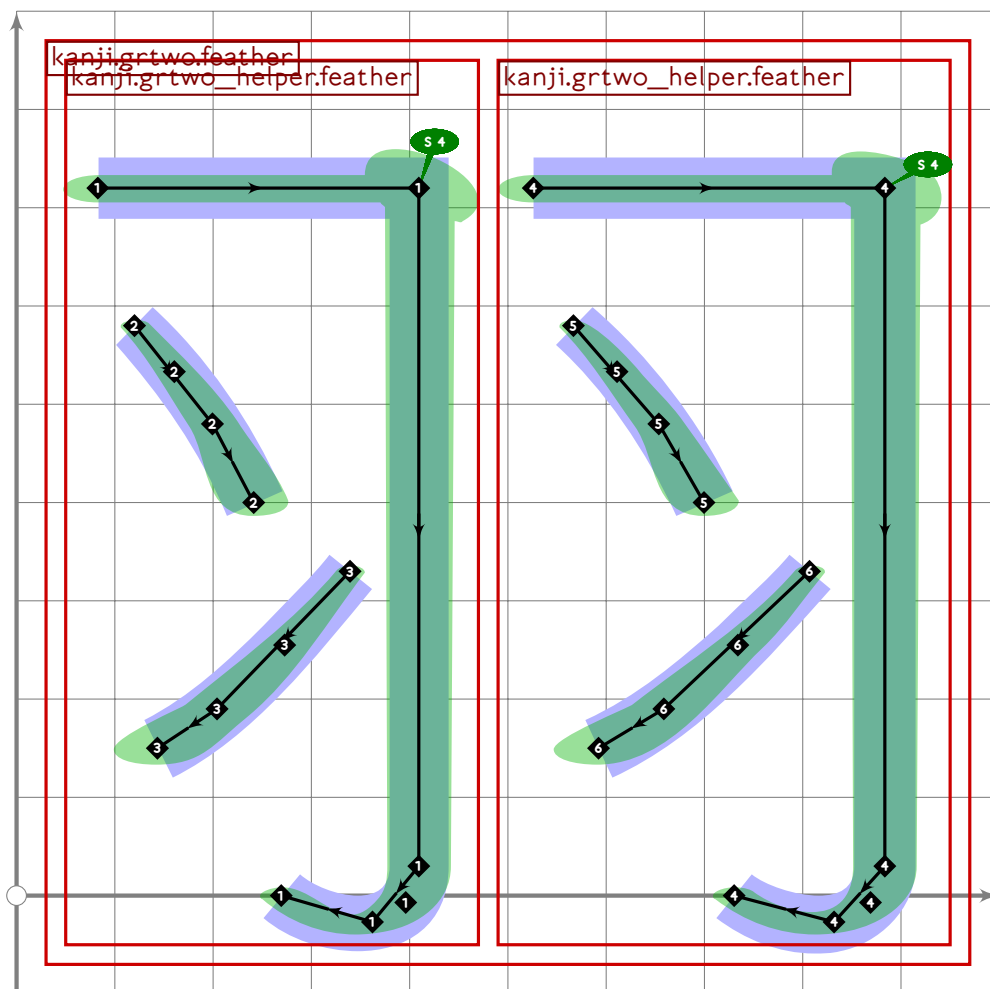



```

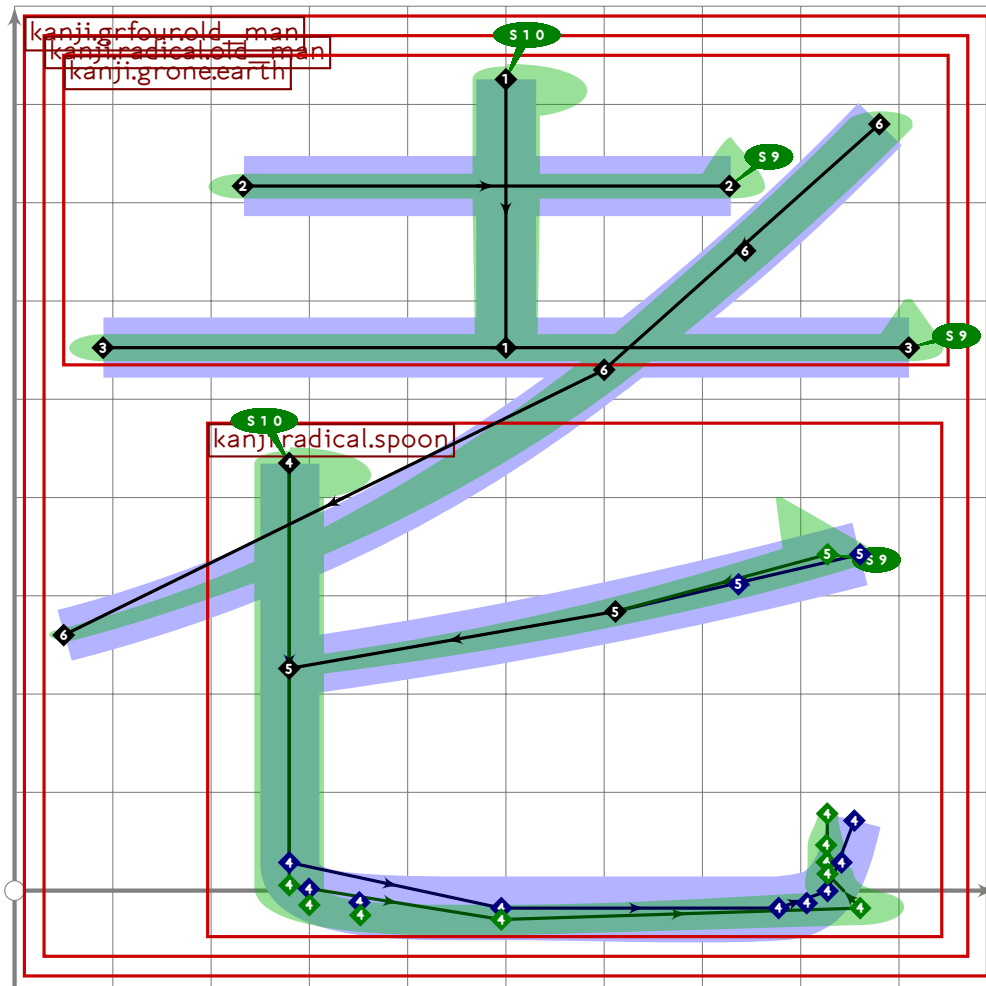
518 % you/hitsuji "sheep"
519 begintuglyph("uni2F7A",122);
520 kanji.grthree.sheep;
521 tsu_render;
522 endtsuglyph;
523

```

U+2F7B
tsuku.uni2F7B



```
524 % u/hane "feather"  
525 beginsuglyph("uni2F7B",123);  
526   kanji.grtwo.feather;  
527   tsu_render;  
528 endsuglyph;  
529
```

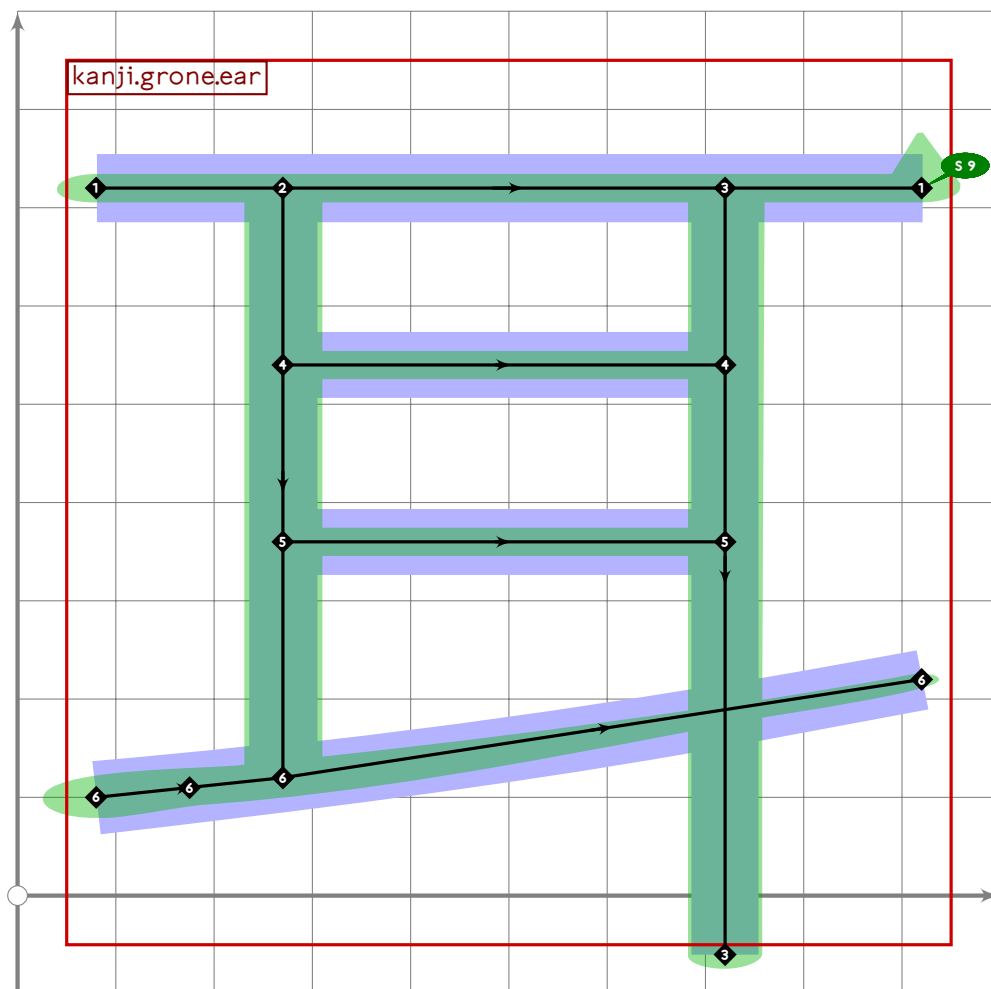


```

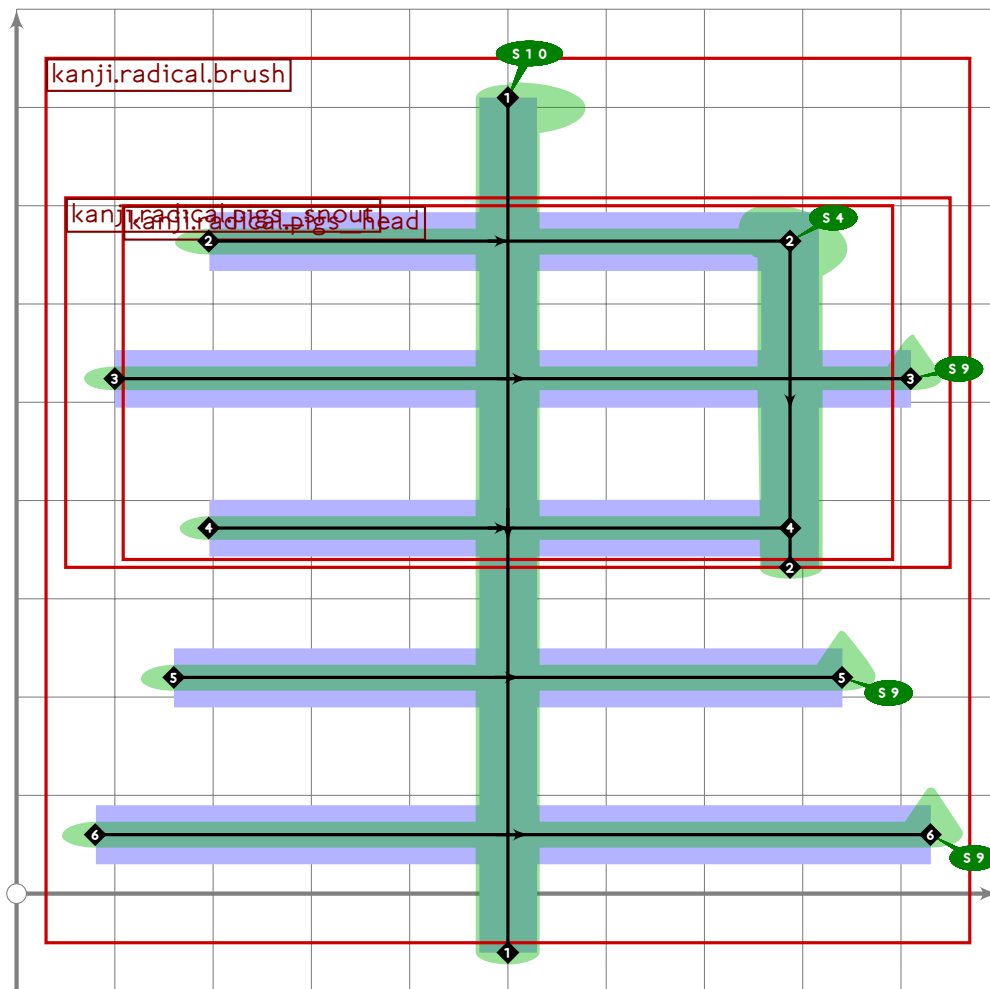
530 % rou/o "old man"
531 begintsuglyph("uni2F7C";124);
532   kanji.grfour.old_man;
533   tsu_render;
534 endtsuglyph;
535

```

U+2F7F
tsuku.uni2F7F



```
536 % ken/mi "ear"  
537 begintsuglyph("uni2F7F",127);  
538   kanji.grone.ear;  
539   tsu_render;  
540 endtsuglyph;  
541
```

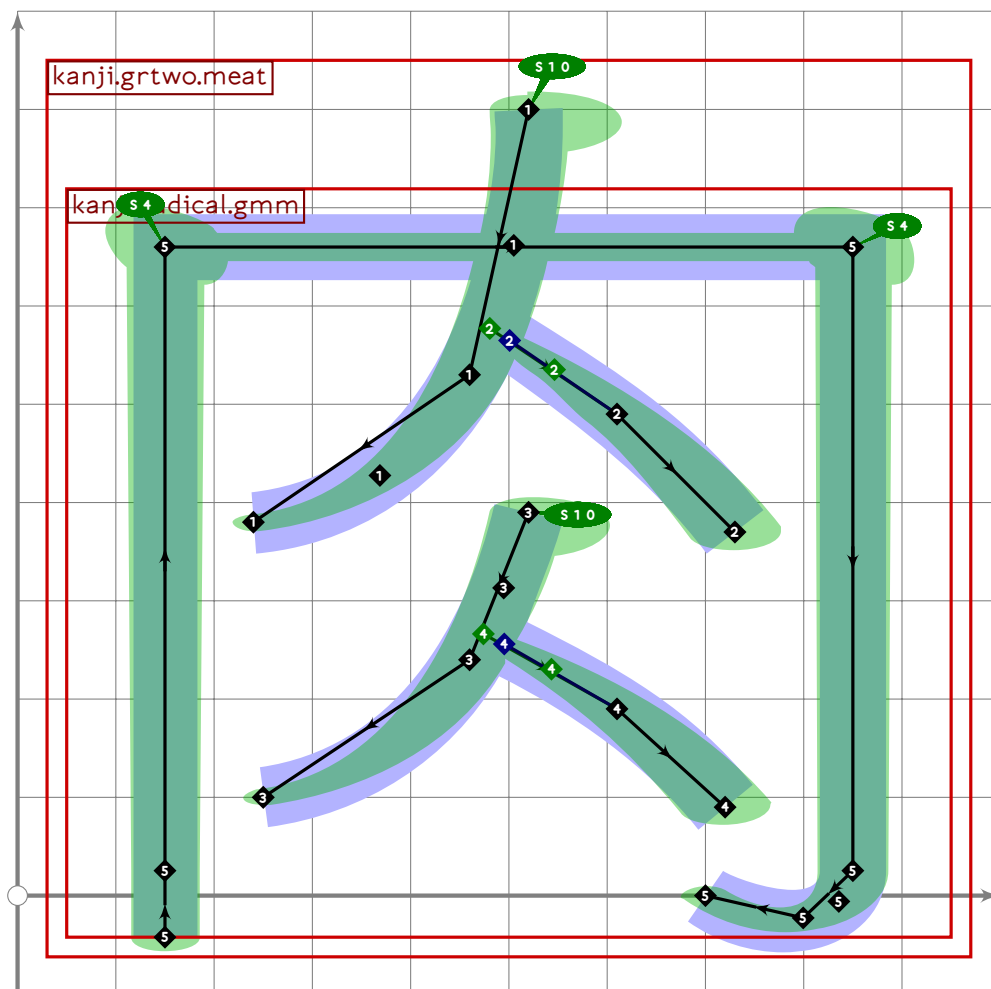


```

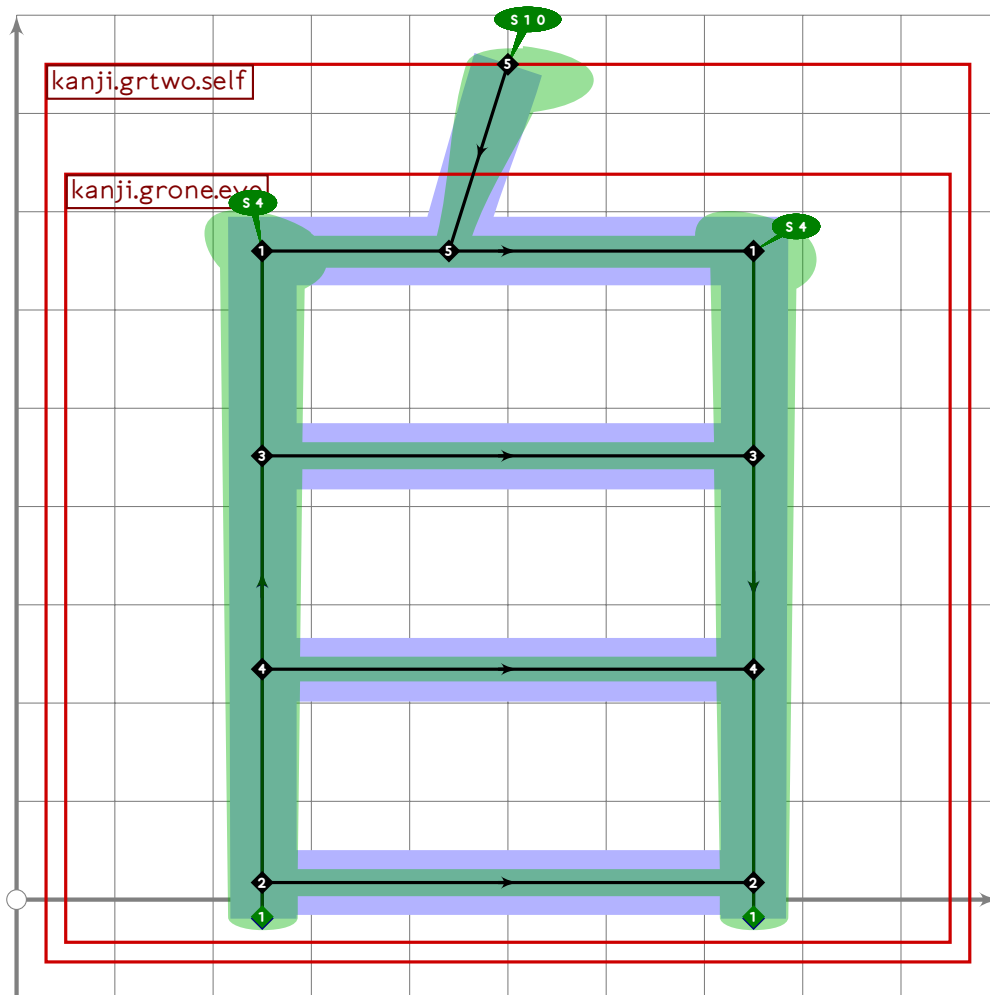
542 % brush radical
543 begintsuglyph("uni2F80",128);
544   kanji.radical.brush;
545   tsu_render;
546 endtsuglyph;
547

```

U+2F81
tsuku.uni2F81



```
548 % niku "meat"  
549 beginsuglyph("uni2F81",129);  
550   kanji.grtwo.meat;  
551   tsu_render;  
552 endsuglyph;  
553
```

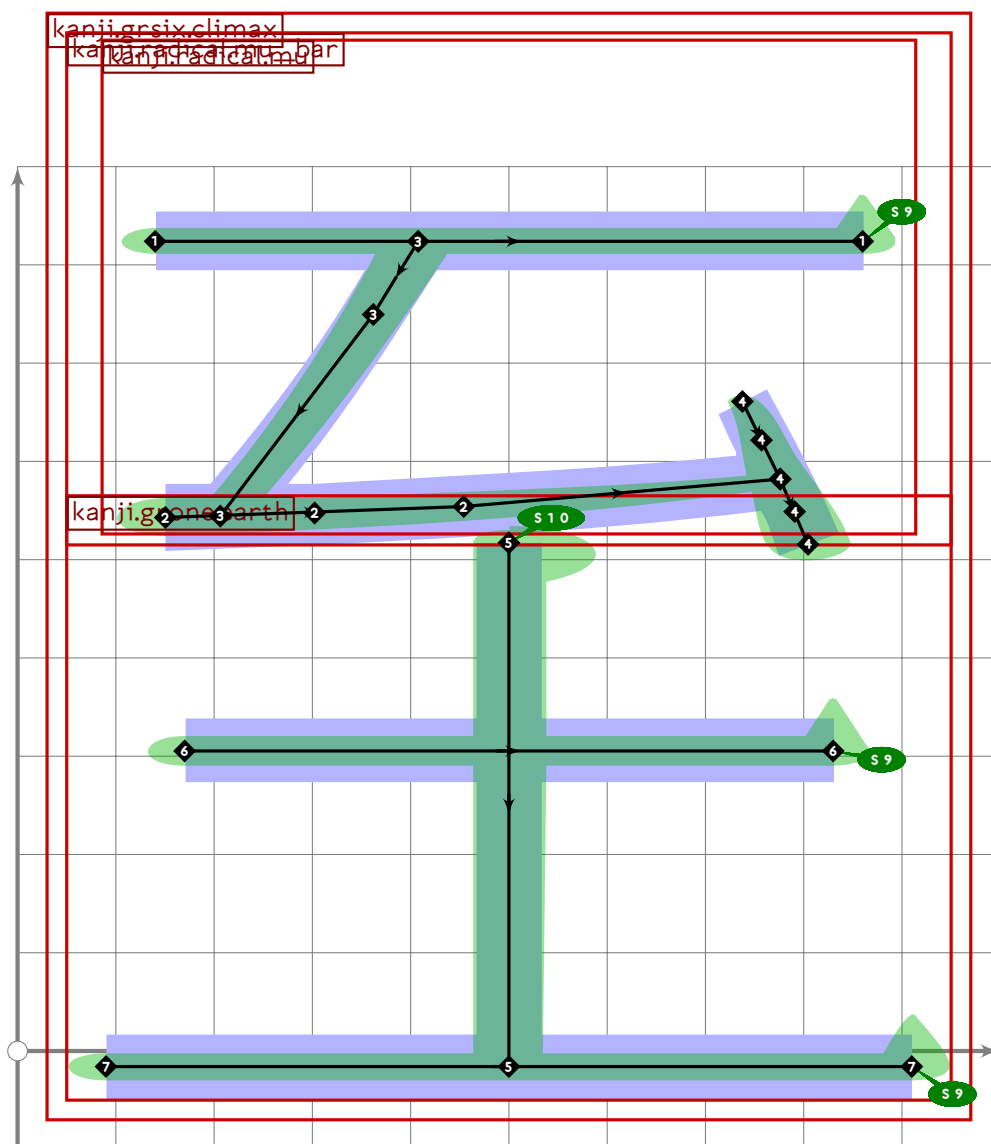


```

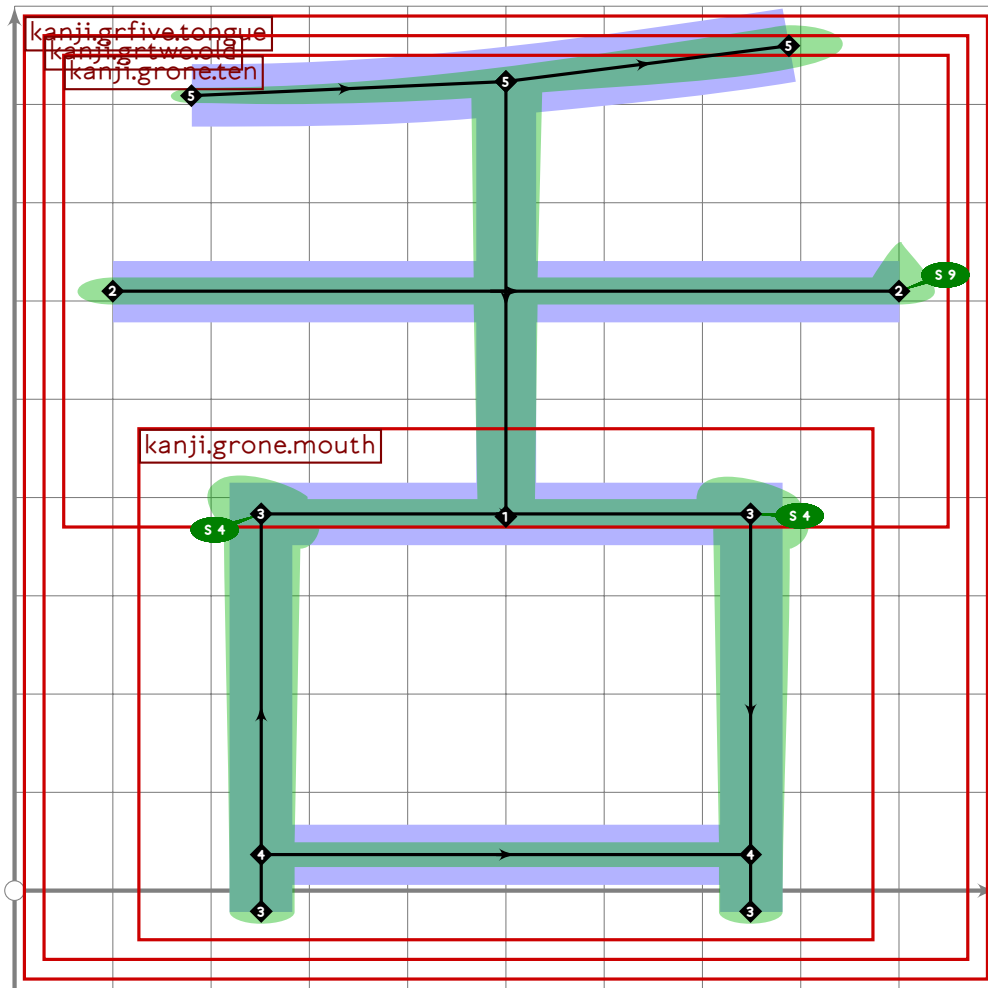
554 % ji as in jibun "self"
555 begint Suglyph("uni2F83",131);
556   kanji.grtwo.self;
557   tsu_render;
558 endtsuglyph;
559

```

U+2F84
tsuku.uni2F84



```
560 % shi/ita "climax"  
561 beginsuglyph("uni2F84",132);  
562 kanji.grsix.climax;  
563 tsu_render;  
564 endsuglyph;  
565
```

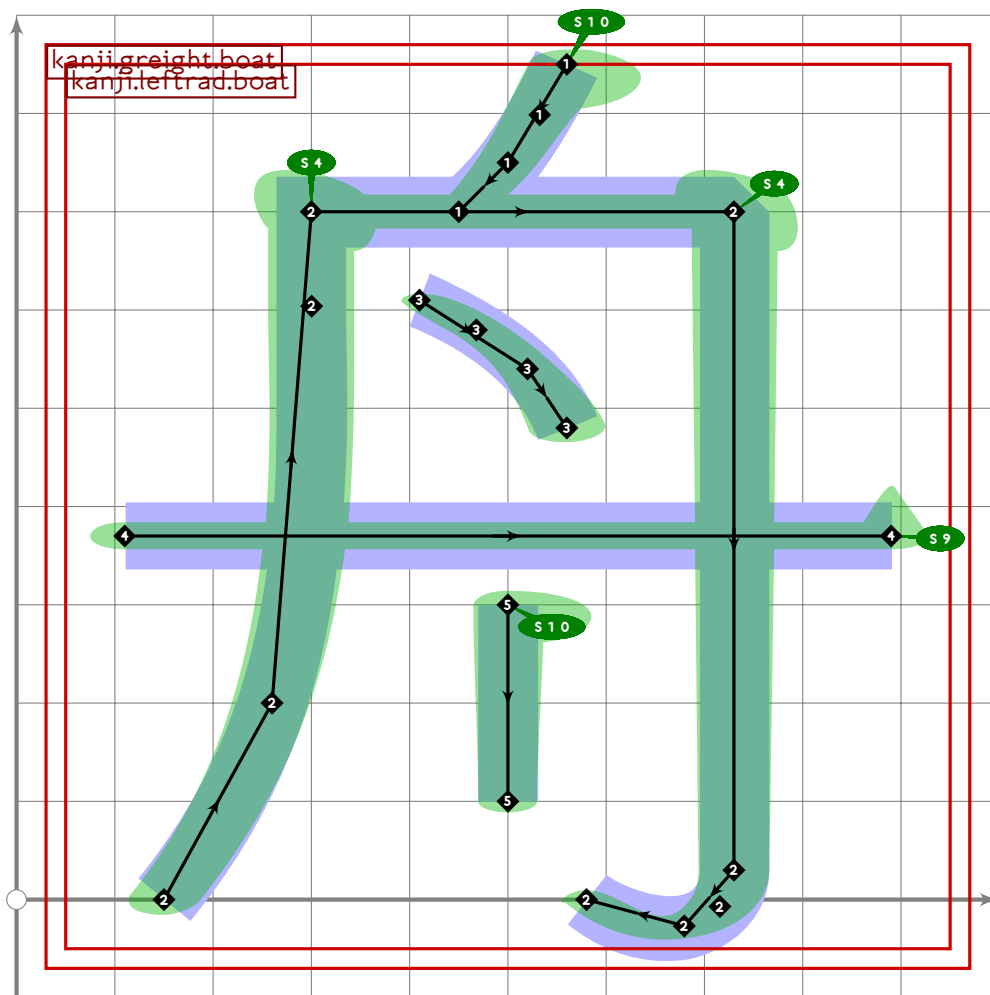



```

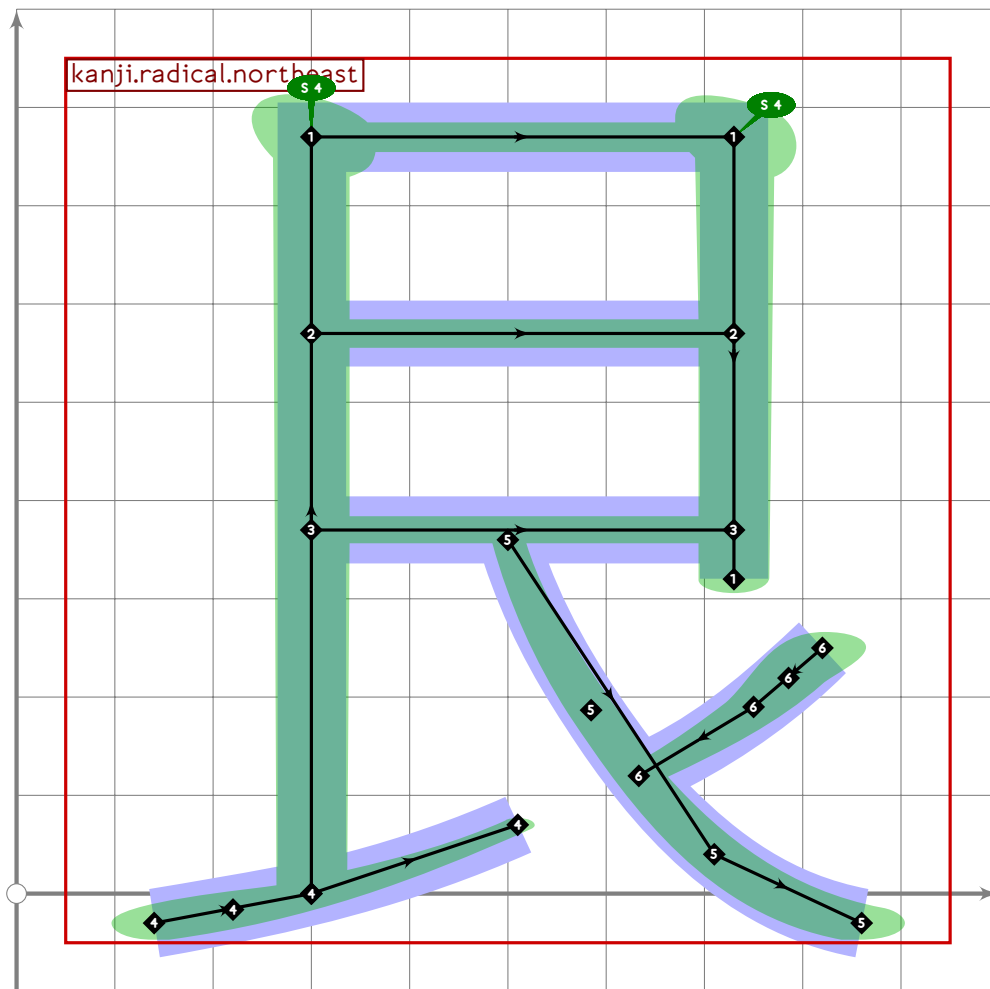
566 % zetsu/shita "tongue"
567 begintsuglyph("uni2F86",134);
568   kanji.grfive.tongue;
569   tsu_render;
570 endtsuglyph;
571

```

U+2F88
tsuku.uni2F88



```
572 % shuu/fune "boat"  
573 begintsuglyph("uni2F88",136);  
574   kanji.greight.boat;  
575   tsu_render;  
576 endsuglyph;  
577
```

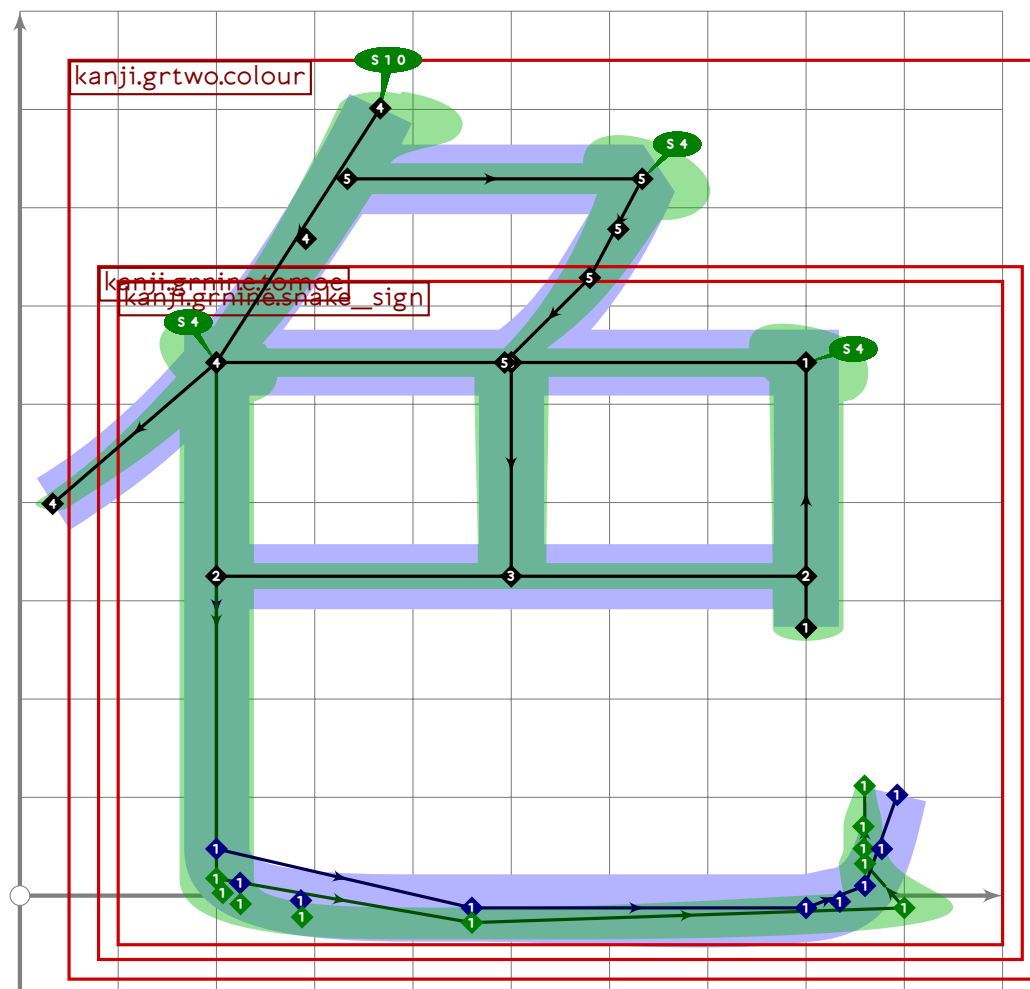


```

578 % kon/ushitora "northeast"
579 begintsuglyph("uni2F89",137);
580   kanji.radical.northeast;
581   tsu_render;
582 endtsuglyph;
583

```

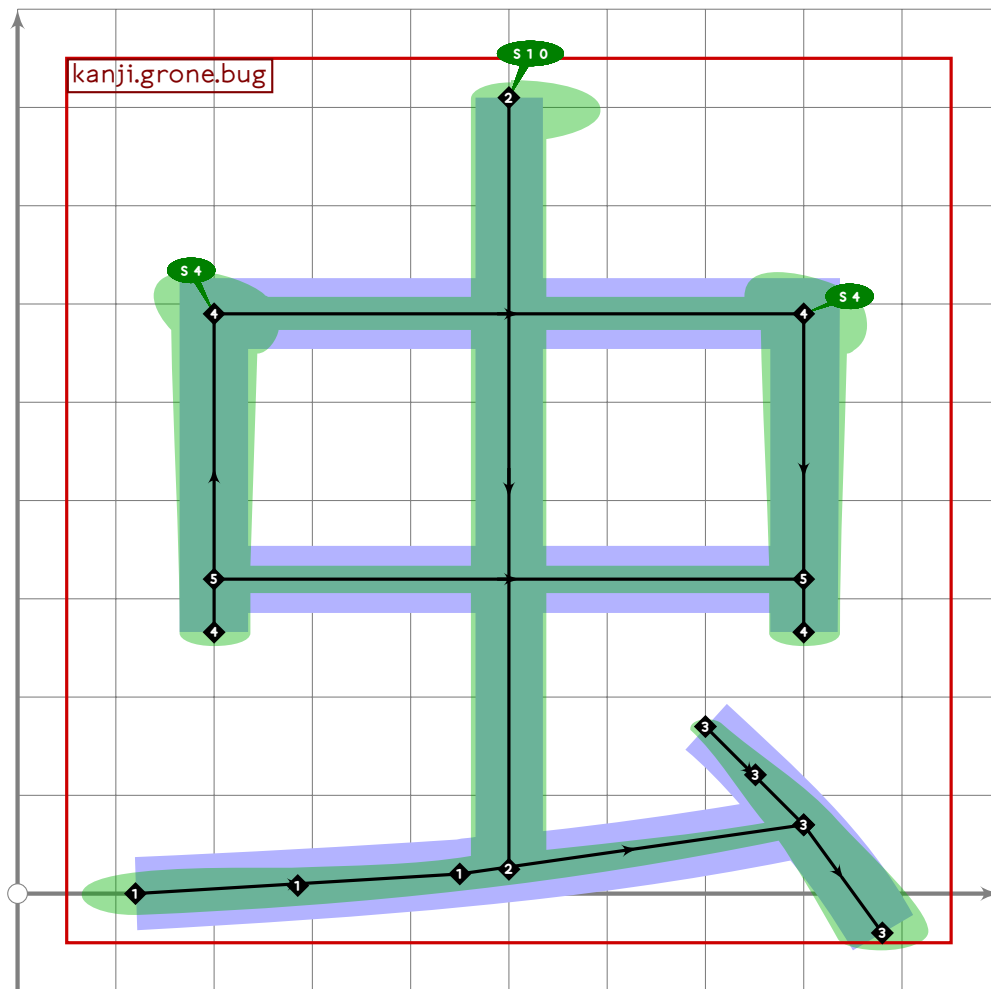
U+2F8A
tsuku.uni2F8A



```

584 % shoku/iro "colour"
585 begint Suglyph("uni2F8A",138);
586   kanji.grtwo.colour;
587   tsu_render;
588 endtsuglyph;
589

```

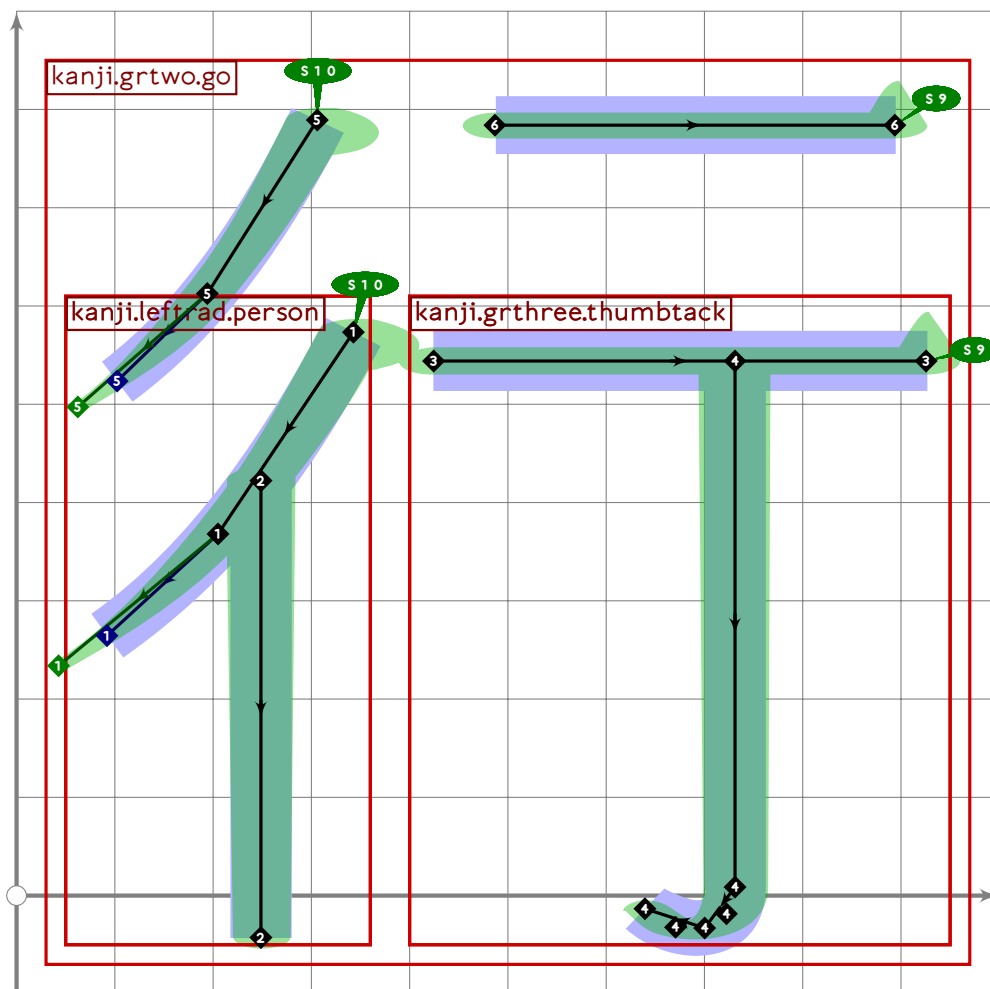


```

590 % mushi "bug"
591 begintsuglyph("uni2F8D";141);
592   kanji.grone.bug;
593   tsu_render;
594 endtsuglyph;
595

```

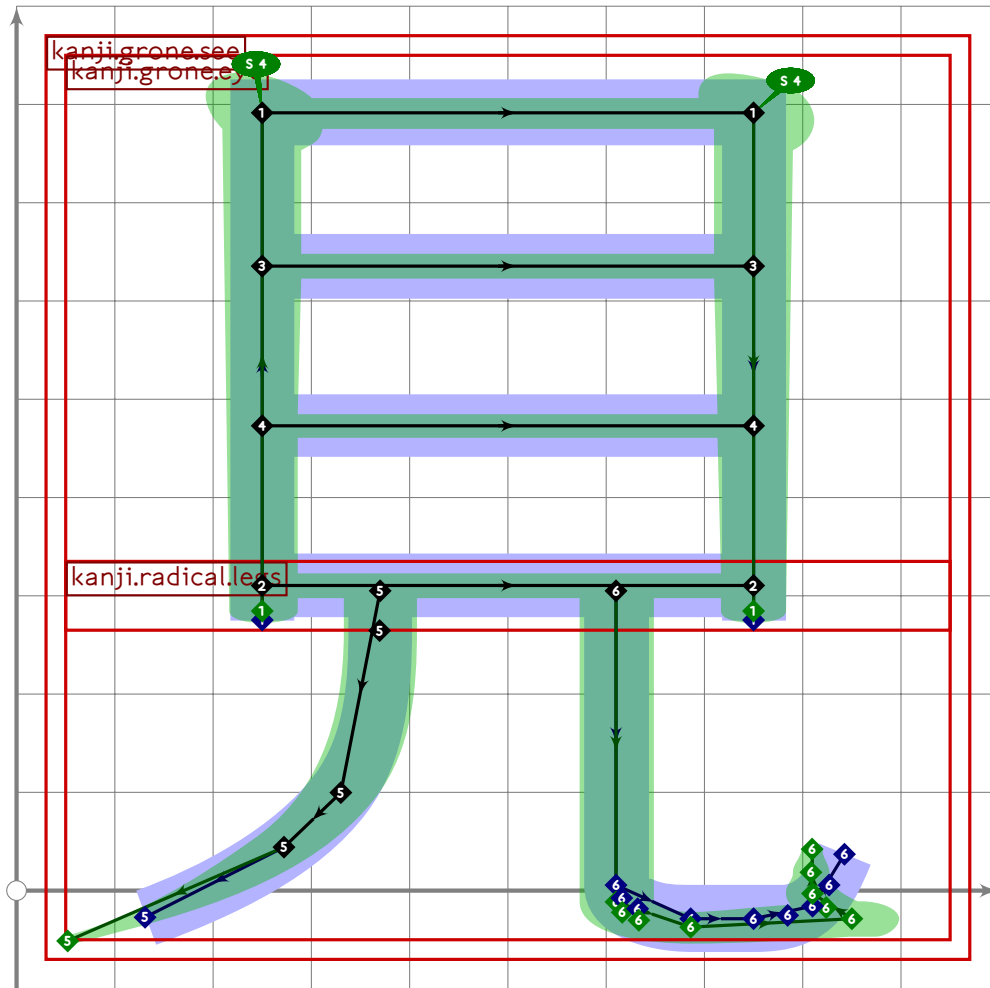
U+2F8F
tsuku.uni2F8F



```

596 % kou/i(ku) "go"
597 begintsuglyph("uni2F8F",143);
598   kanji.grtwo.go;
599   tsu_render;
600 endtsuglyph;
601

```

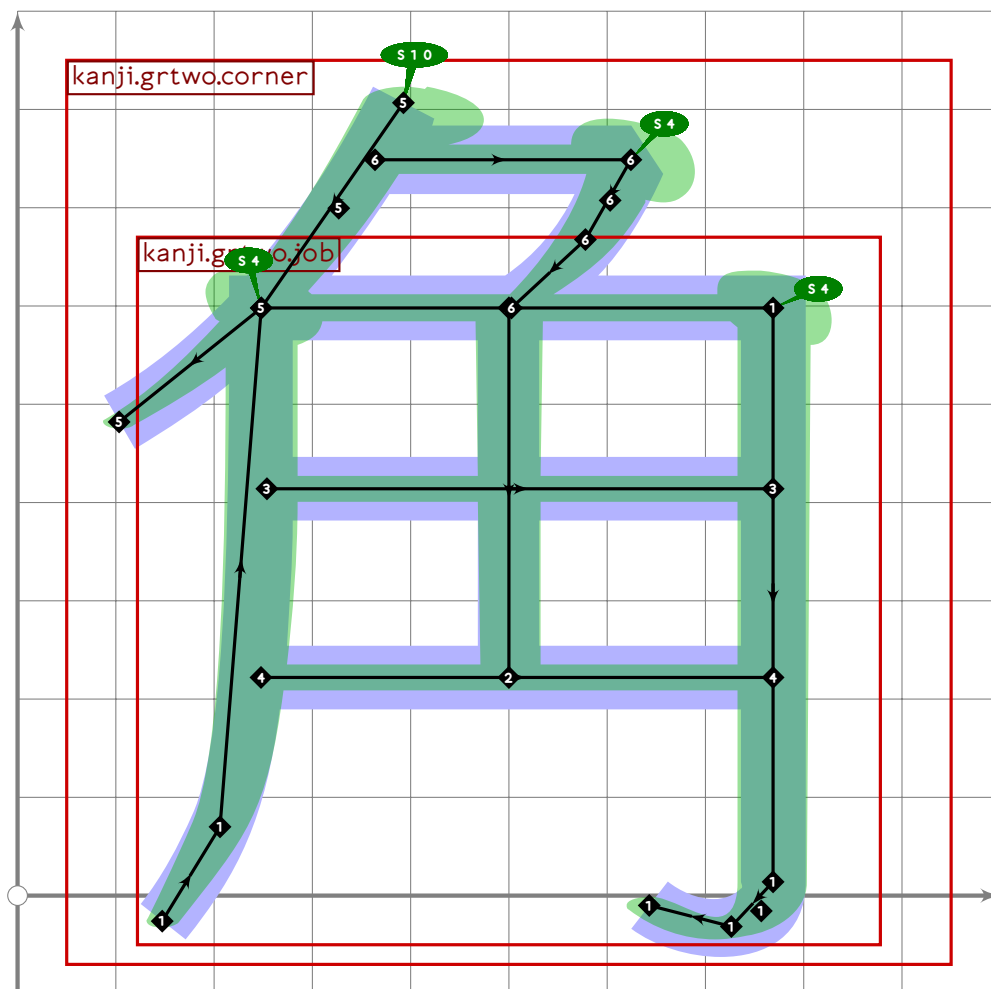


```

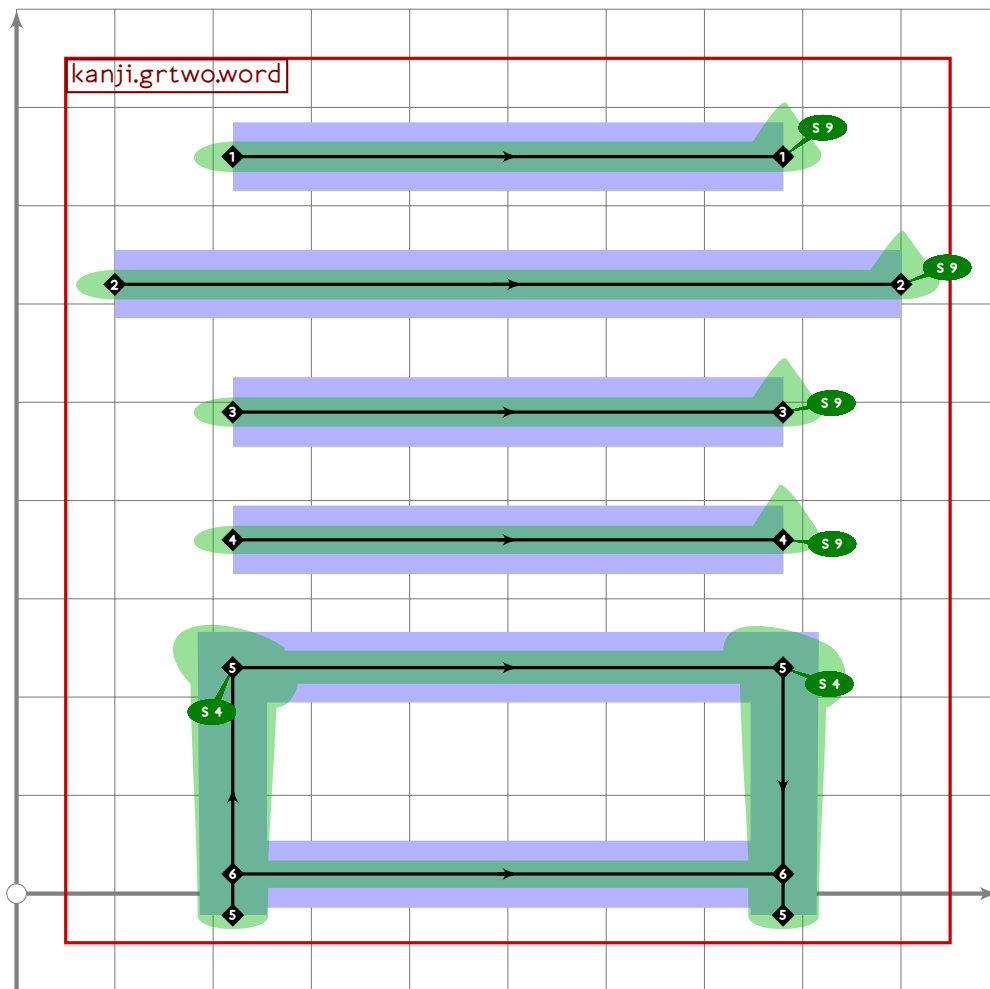
602 % ken/mi "see"
603 begintsuglyph("uni2F92";146);
604   kanji.grone.see;
605   tsu_render;
606 endtsuglyph;
607

```

U+2F93
tsuku.uni2F93



```
608 % kaku/kado "corner"  
609 begintsuglyph("uni2F93";147);  
610   kanji.grtwo.corner;  
611   tsu_render;  
612 endtsuglyph;  
613
```

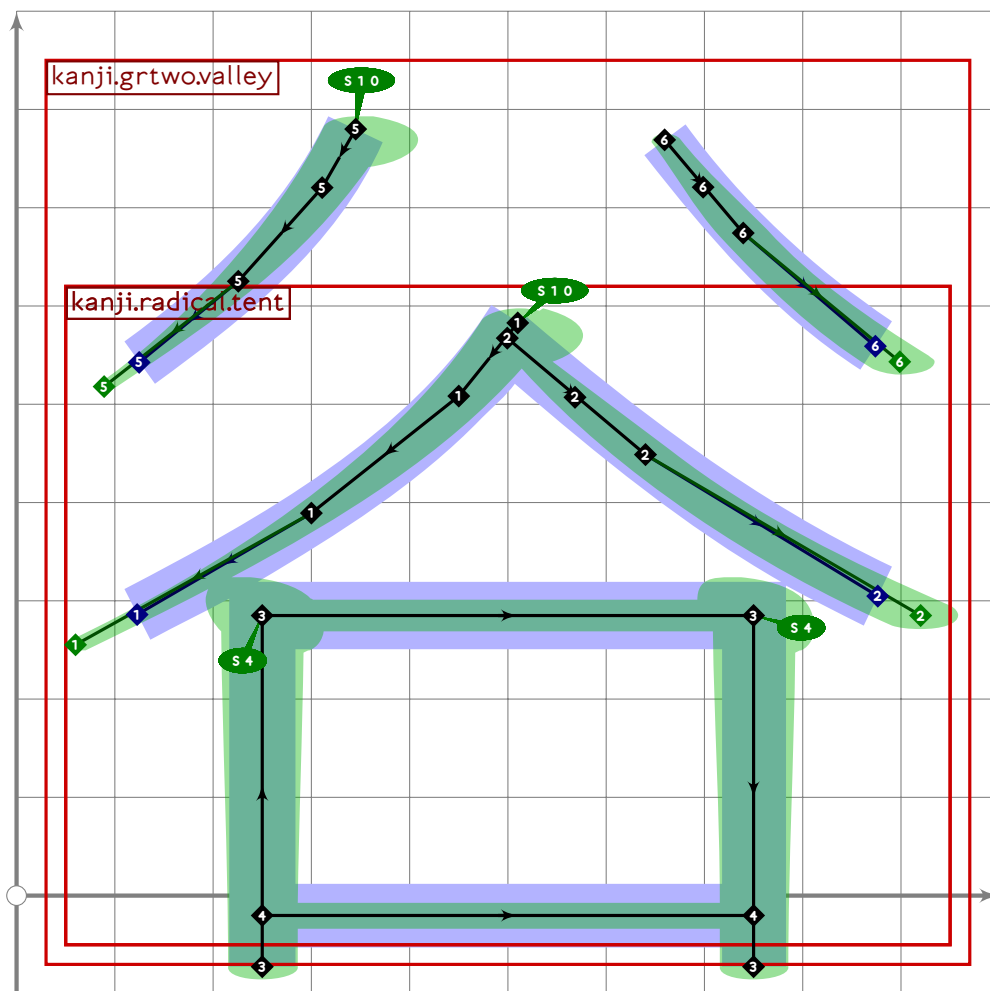



```

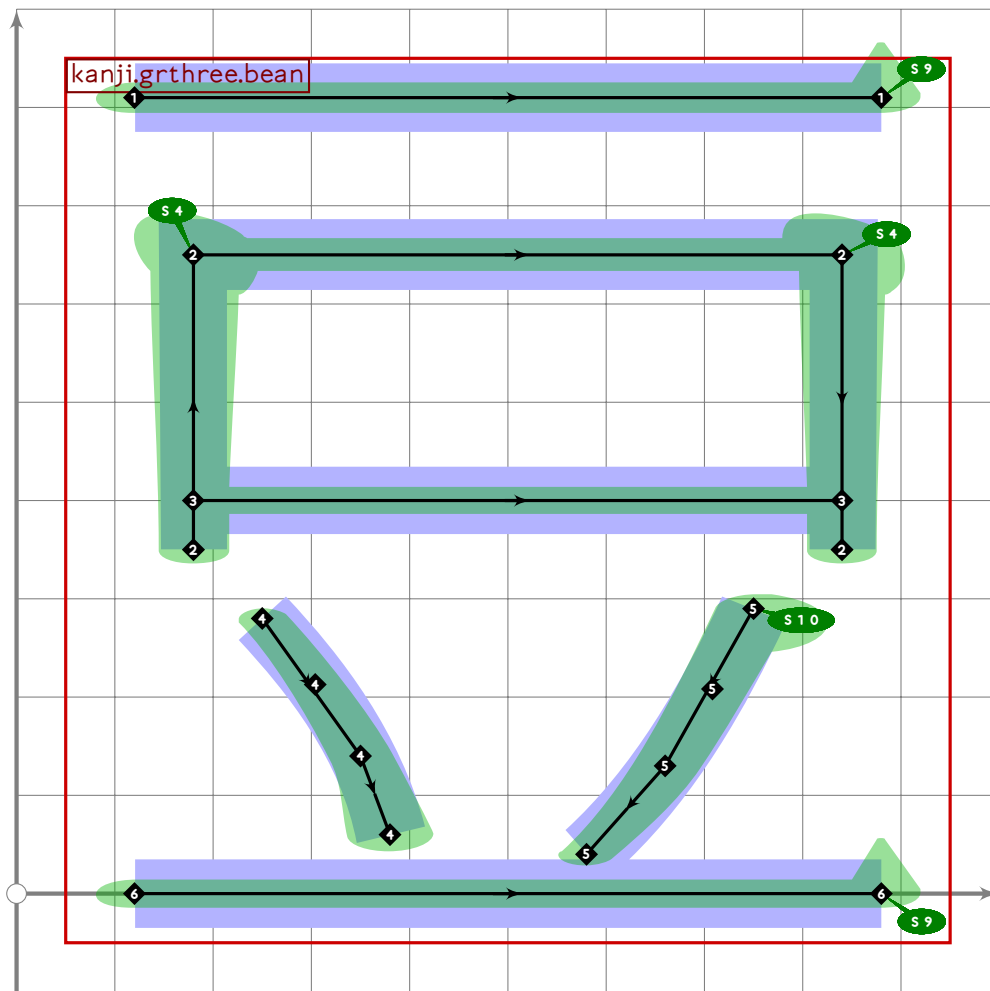
614 % gen/i "word"
615 begintsuglyph("uni2F94";148);
616   kanji.grtwo.word;
617   tsu_render;
618 endtsuglyph;
619

```

U+2F95
tsuku.uni2F95



```
620 % koku/tani "valley"  
621 begintsuglyph("uni2F95";149);  
622   kanji.grtwo.valley;  
623   tsu_render;  
624 endtsuglyph;  
625
```

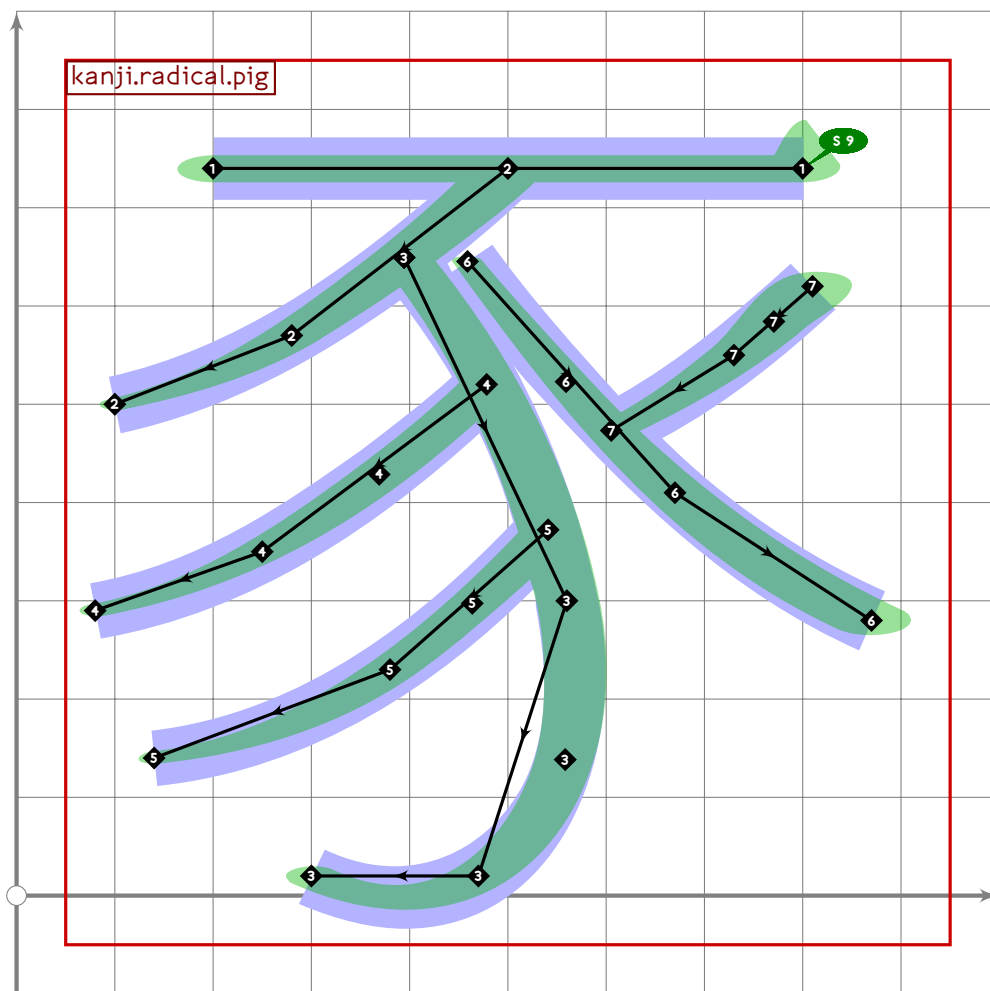


```

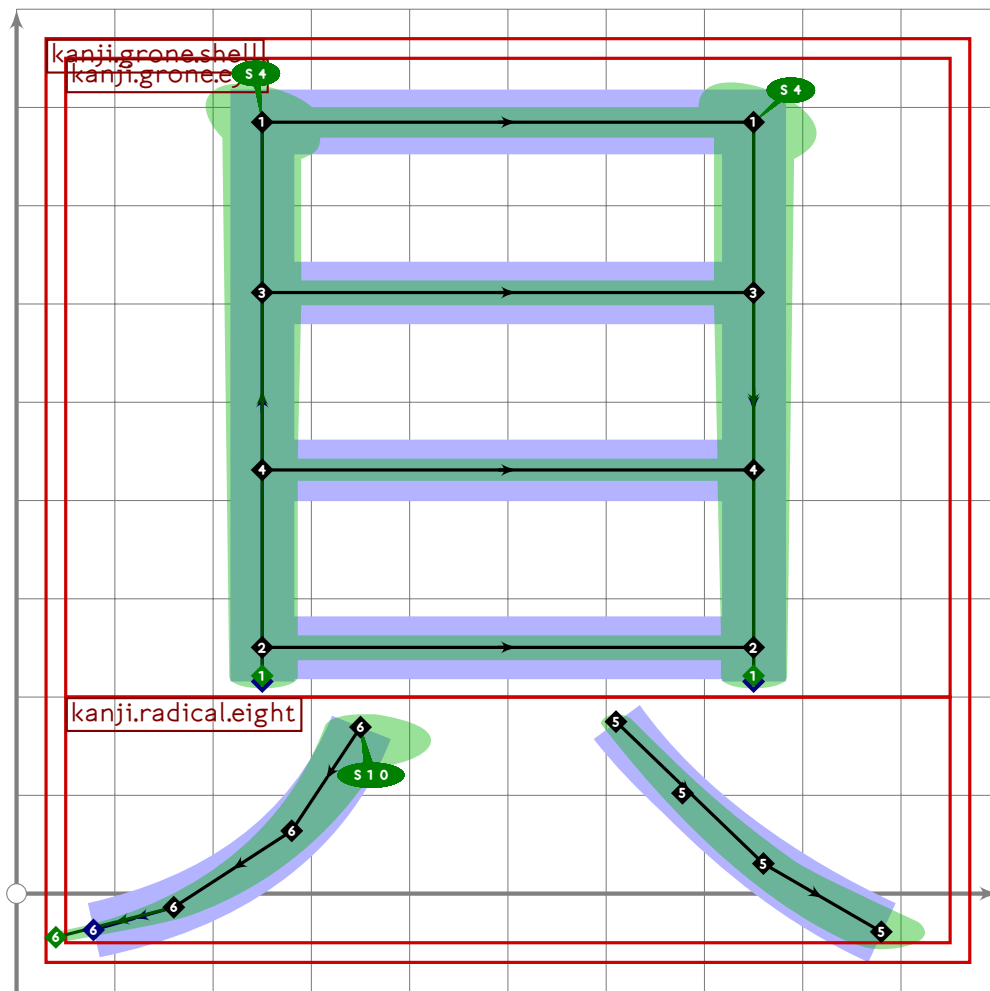
626 % tou/mame "bean"
627 begintsuglyph("uni2F96";150);
628   kanji.grthree.bean;
629   tsu_render;
630 endtsuglyph;
631

```

U+2F97
tsuku.uni2F97



```
632 % inoko "pig" radical
633 begint Suglyph("uni2F97";151);
634   kanji.radical.pig;
635   tsu_render;
636 endtsuglyph;
637
```

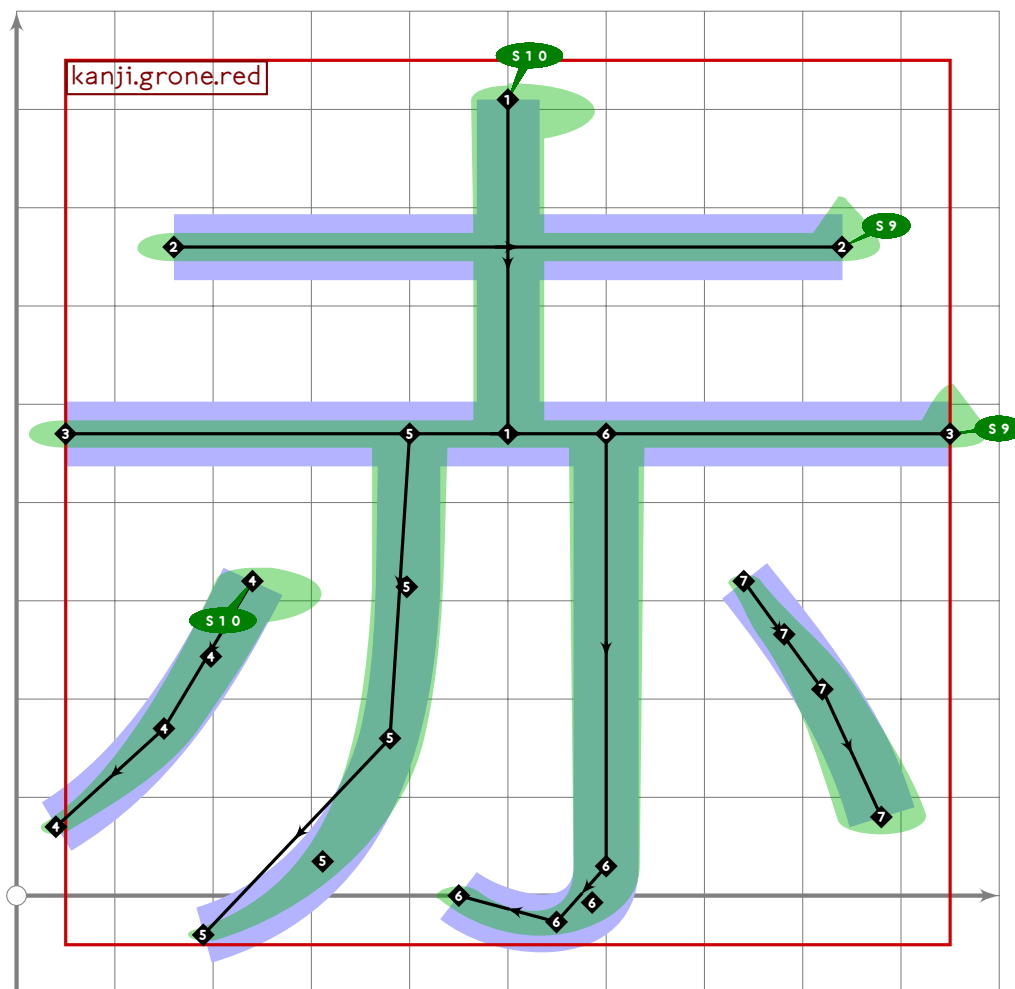


```

638 % bai/kai "shellfish"
639 beginsuglyph("uni2F99",153);
640   kanji.grone.shell;
641   tsu_render;
642 endsuglyph;
643

```

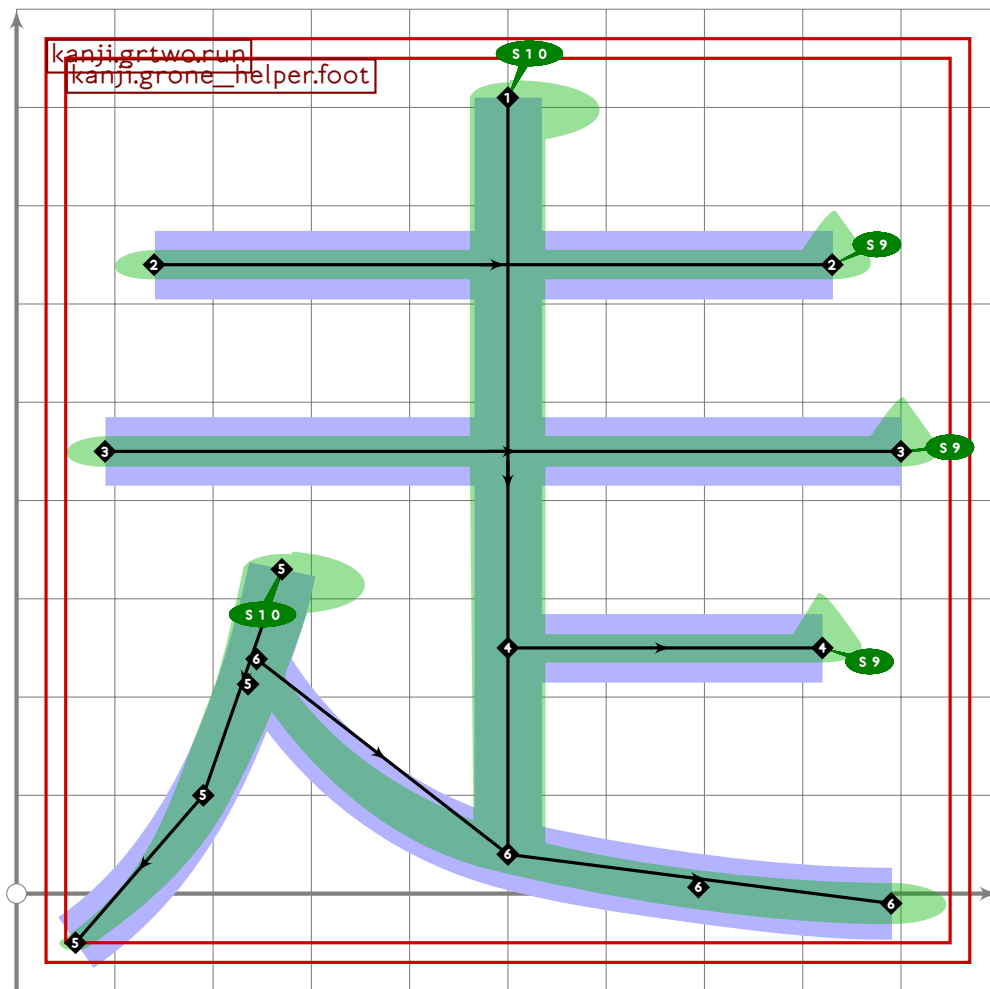
U+2F9A
tsuku.uni2F9A



```

644 % aka/seki "red"
645 begintsuglyph("uni2F9A",154);
646   kanji.grone.red;
647   tsu_render;
648 endtsuglyph;
649

```

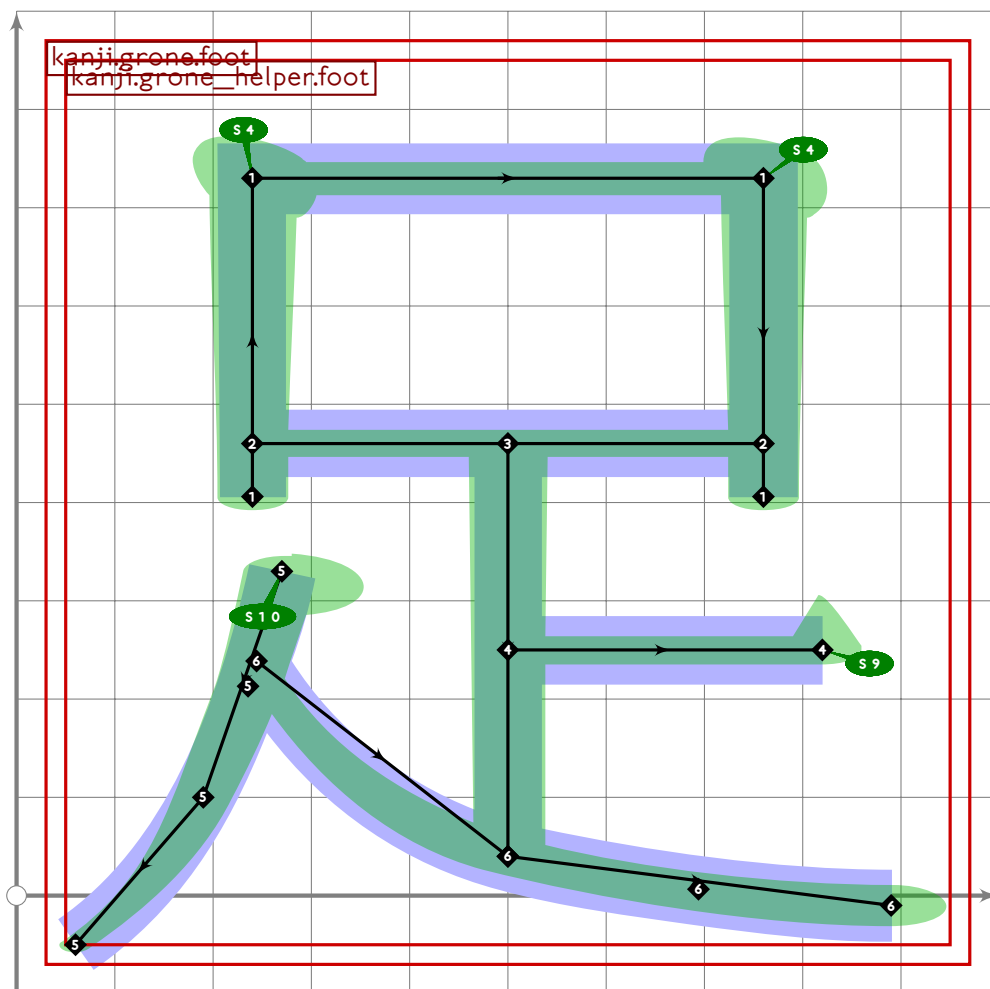


```

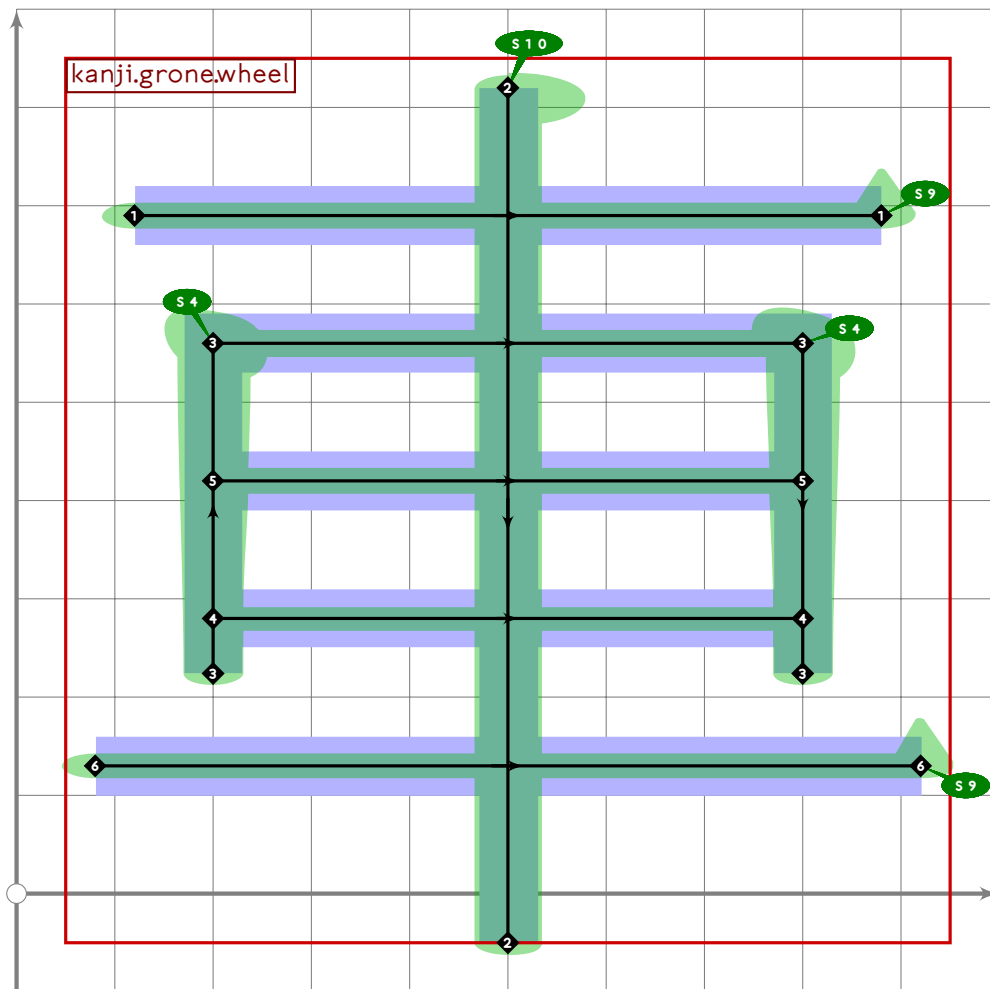
650 % sou/hasi "run"
651 begintsuglyph("uni2F9B",155);
652   kanji.grtwo.run;
653   tsu_render;
654 endtsuglyph;
655

```

U+2F9C
tsuku.uni2F9C



```
656 % ashi/soku "foot"  
657 begintsuglyph("uni2F9C";156);  
658   kanji.grone.foot;  
659   tsu_render;  
660 endsuglyph;  
661
```

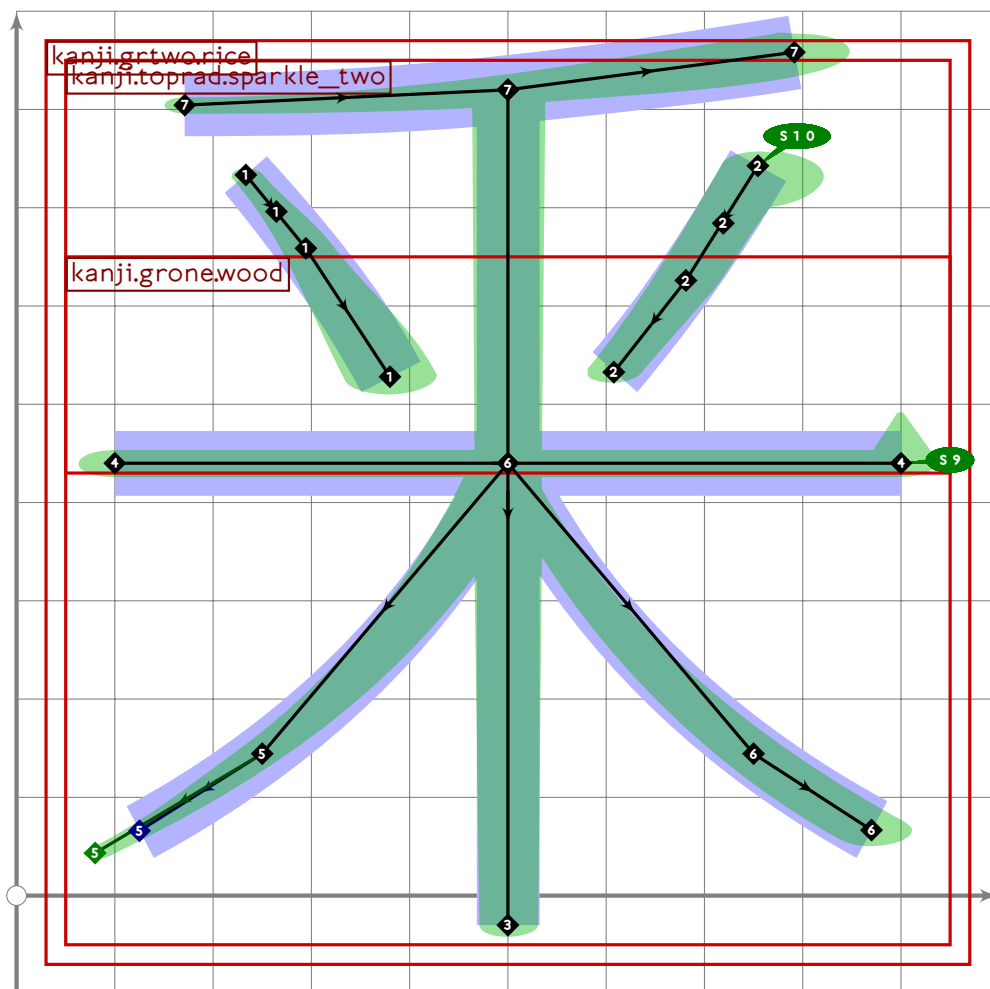



```

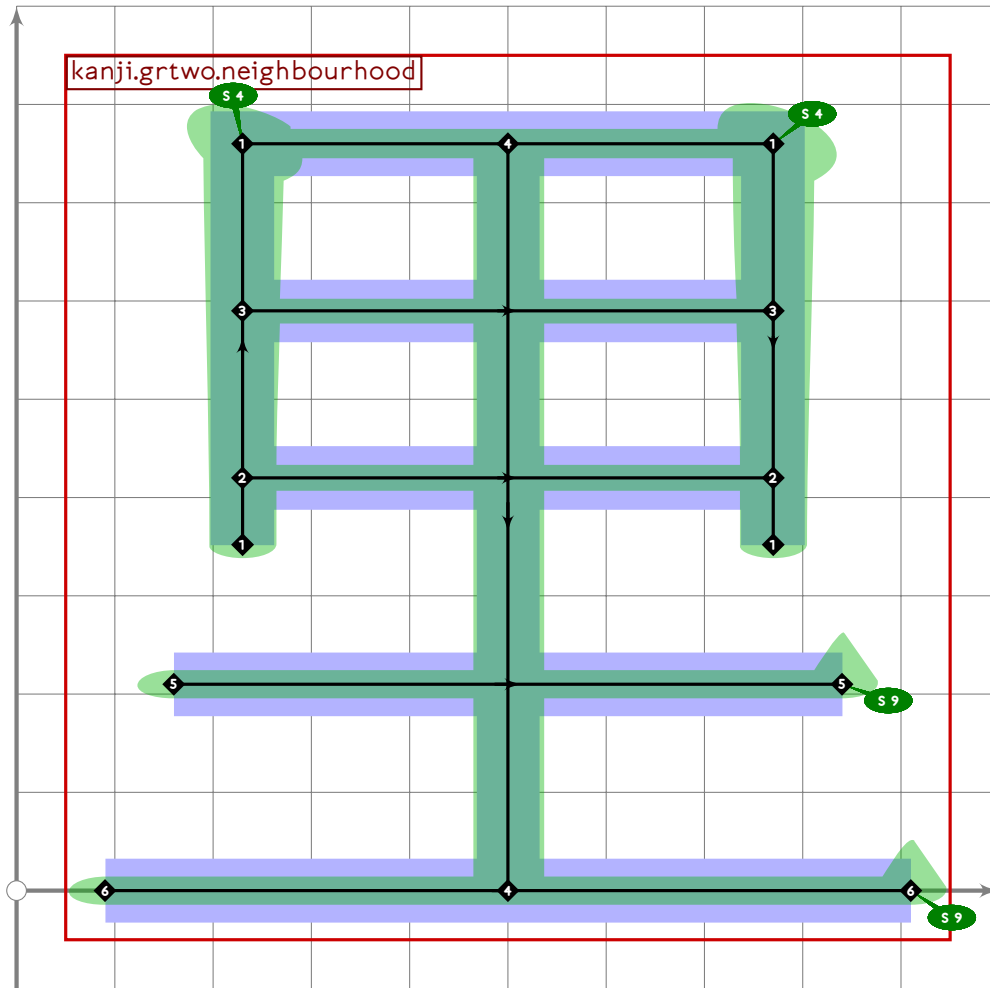
662 % kuruma "car/wheel"
663 begint Suglyph("uni2F9E",158);
664   kanji.gronewheel;
665   tsu_render;
666 endtsuglyph;
667

```

U+2FA4
tsuku.uni2FA4



```
668 % han/irodori "separate" or "divide" but mostly "topped rice radical"  
669 begintsuglyph("uni2FA4",164);  
670   build_kanji.add_beret(kanji.grtwo.rice);  
671   tsu_render;  
672 endsuglyph;  
673
```

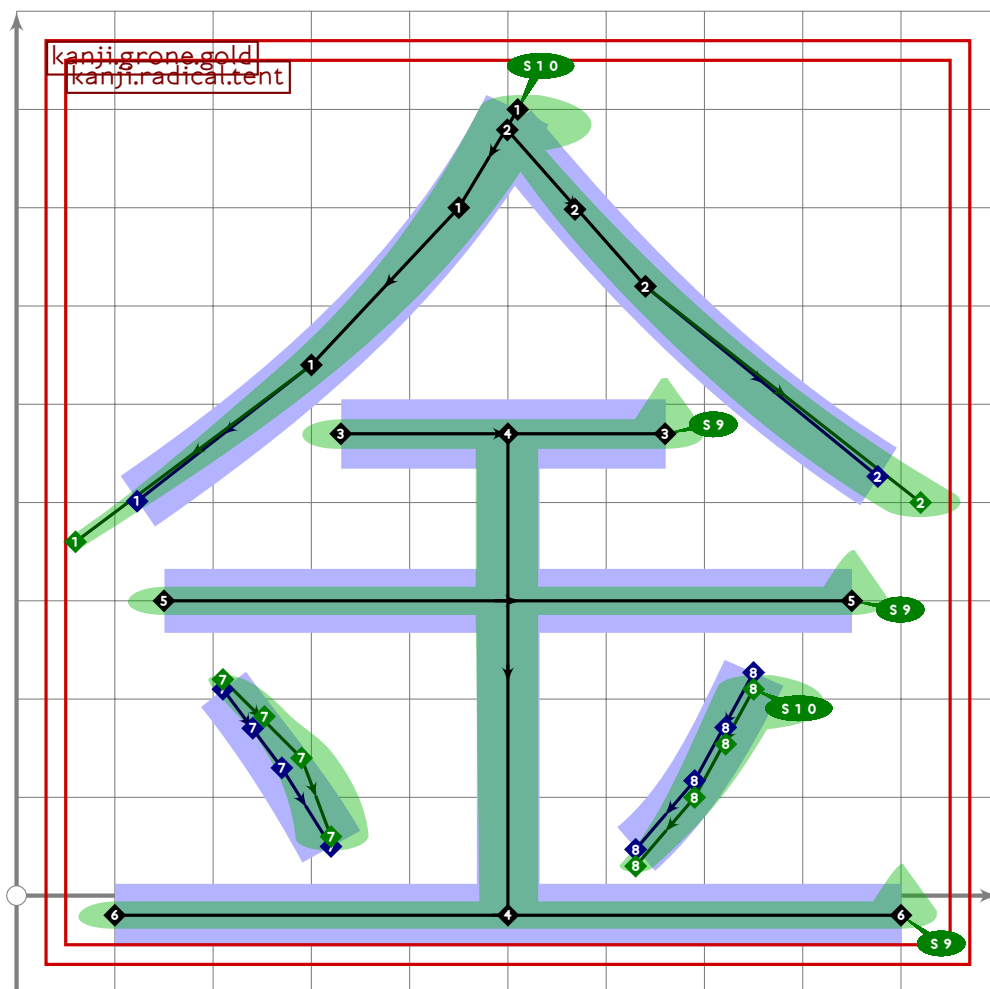


```

674 % ri/sato, multiple meanings including 3.929km and "neighbourhood"
675 begintsuglyph("uni2FA5",165);
676   kanji.grtwo.neighbourhood;
677   tsu_render;
678 endtsuglyph;
679

```

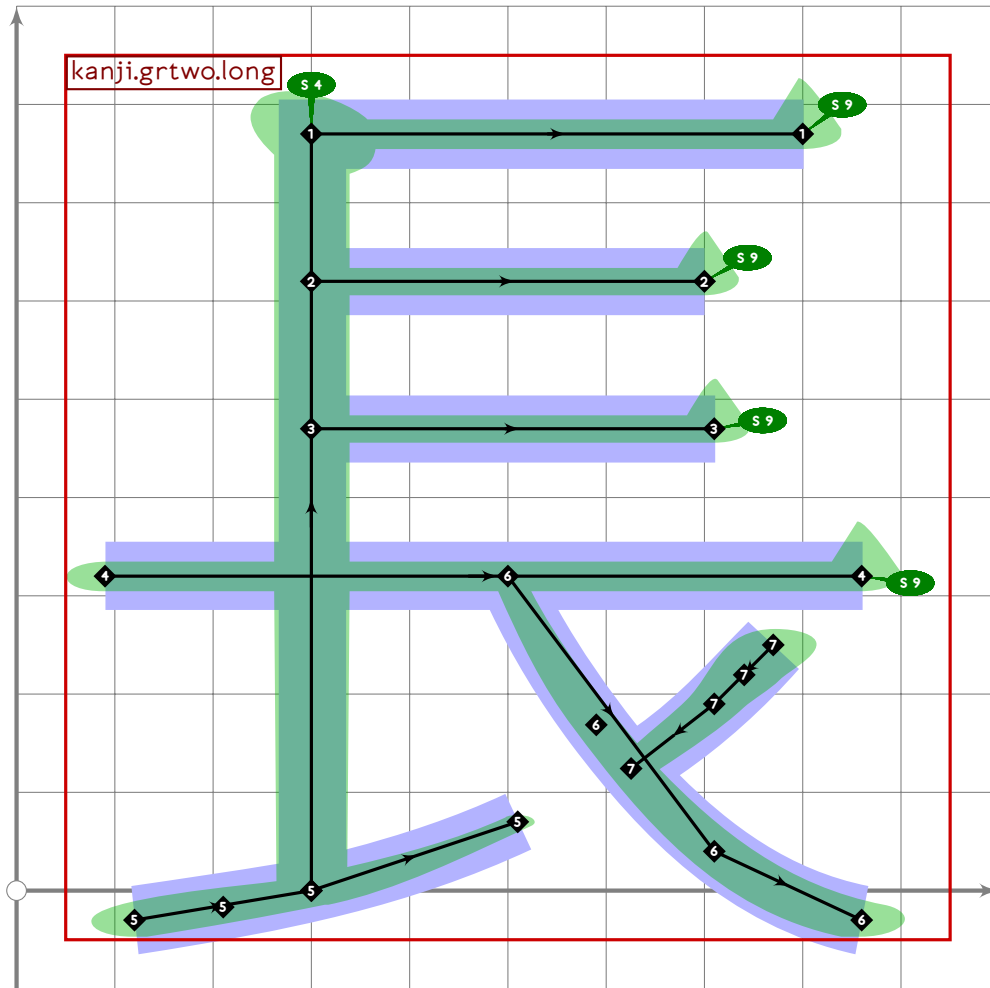
U+2FA6
tsuku.uni2FA6



```

680 % kane/kin "gold"
681 begintsuglyph("uni2FA6",166);
682   kanji.grone.gold;
683   tsu_render;
684 endtsuglyph;
685

```

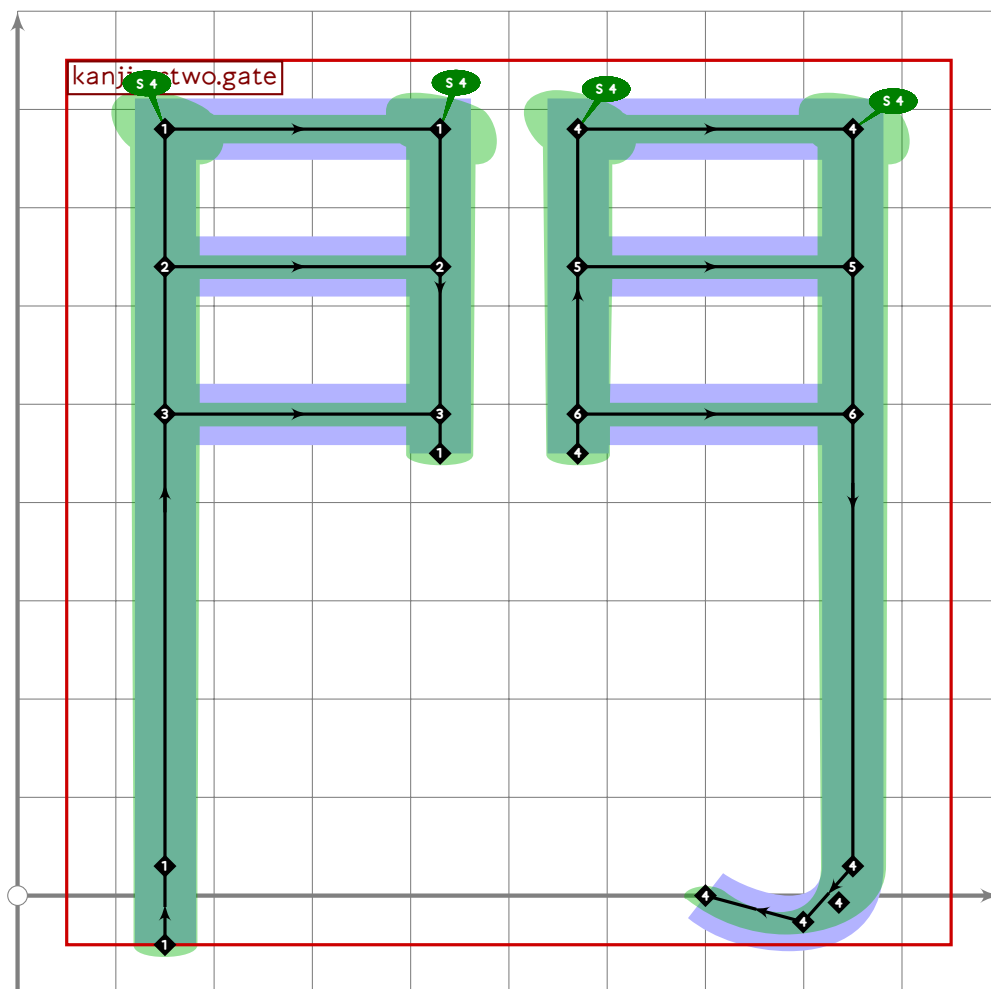


```

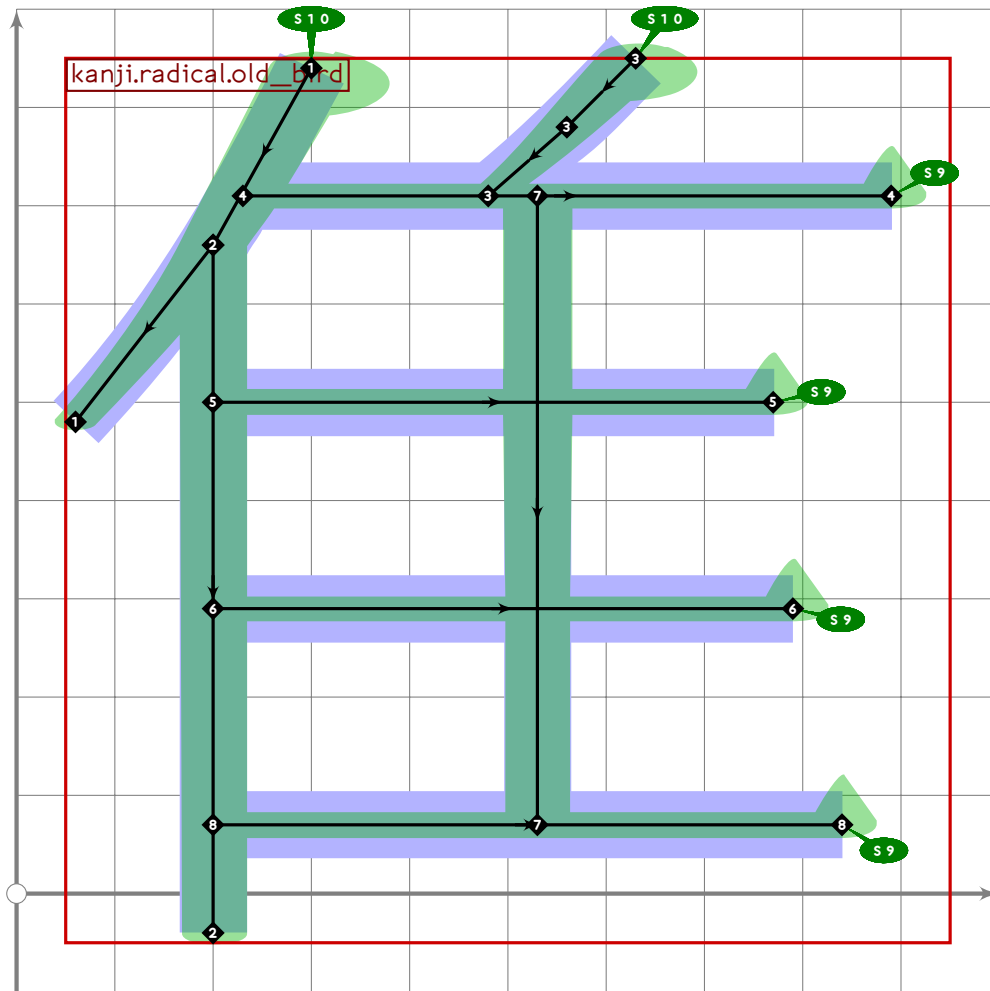
686 % chou/naga "long"
687 begintsuglyph("uni2FA7";167);
688   kanji.grtwo.long;
689   tsu_render;
690 endtsuglyph;
691

```

U+2FA8
tsuku.uni2FA8



```
692 % mon/kado "gate"  
693 begintsuglyph("uni2FA8",168);  
694   kanji.grtwo.gate;  
695   tsu_render;  
696 endtsuglyph;  
697
```

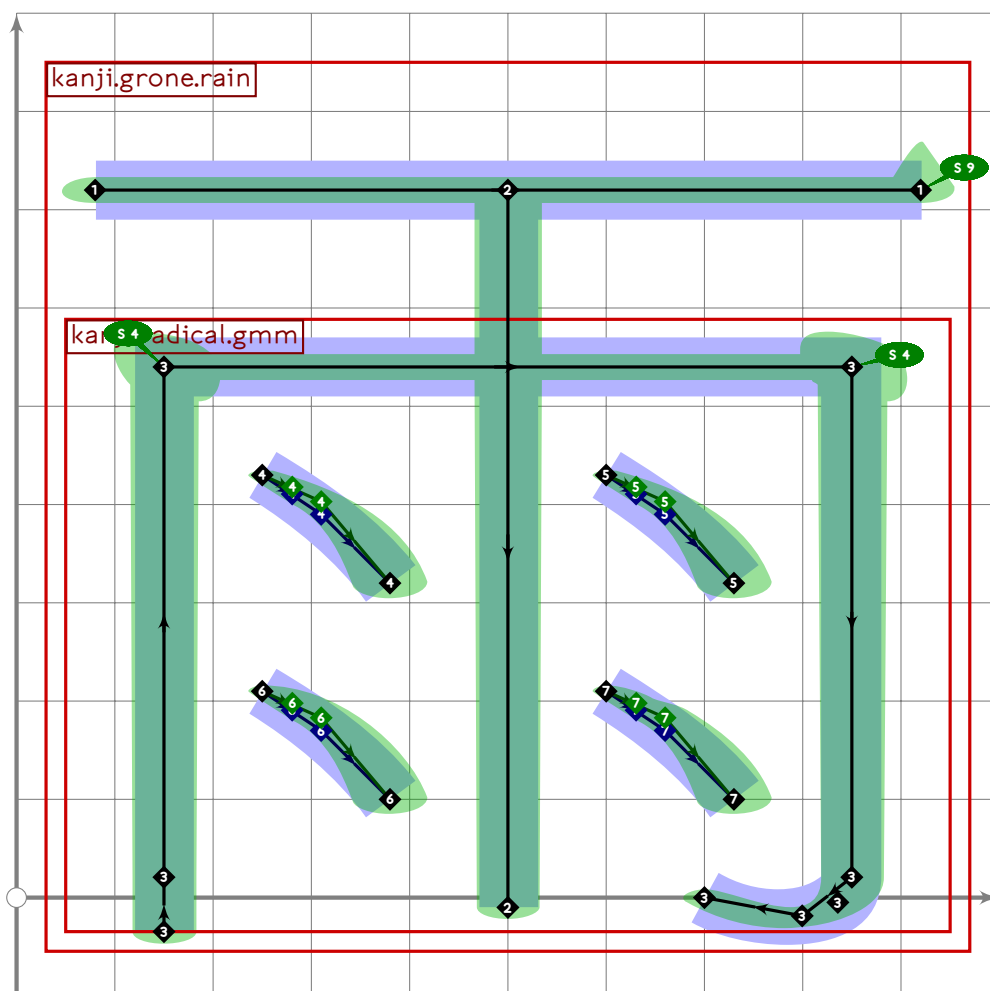


```

698 % sai/tori "old bird" radical
699 begintsuglyph("uni2FAB",171);
700   kanji.radical.old_bird;
701   tsu_render;
702 endtsuglyph;
703

```

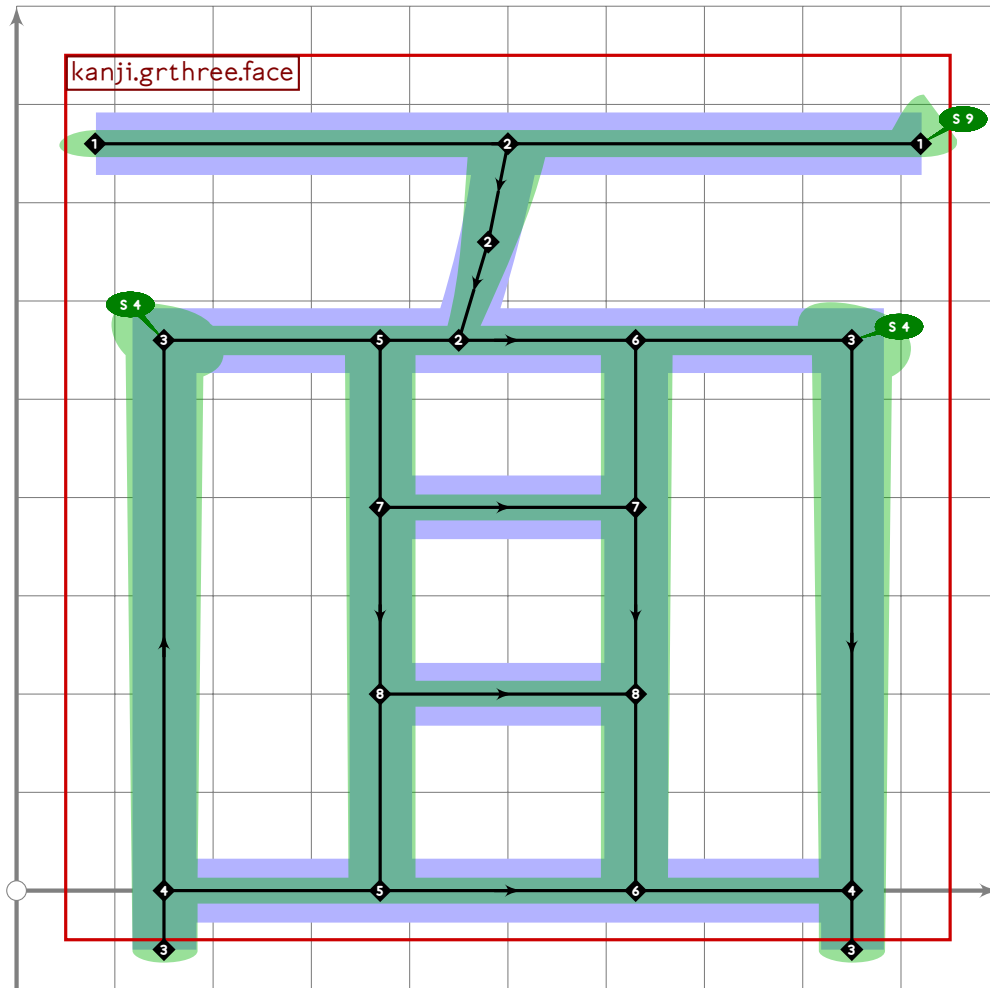
U+2FAC
tsuku.uni2FAC



```

704 % u/ame "rain"
705 begintsuglyph("uni2FAC";172);
706   kanji.grone.rain;
707   tsu_render;
708 endtsuglyph;
709

```

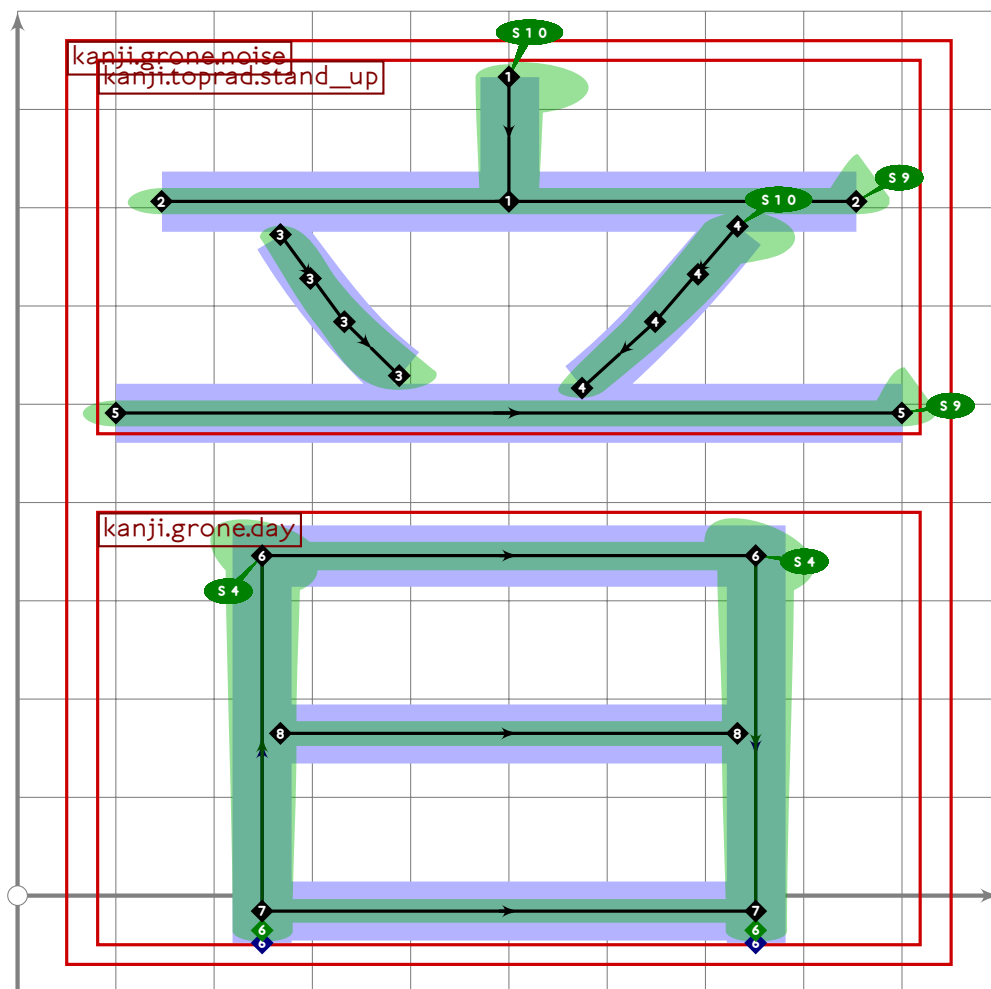



```

710 % men/omo "face"
711 begintsuglyph("uni2FAF",175);
712   kanji.grthree.face;
713   tsu_render;
714 endtsuglyph;
715

```

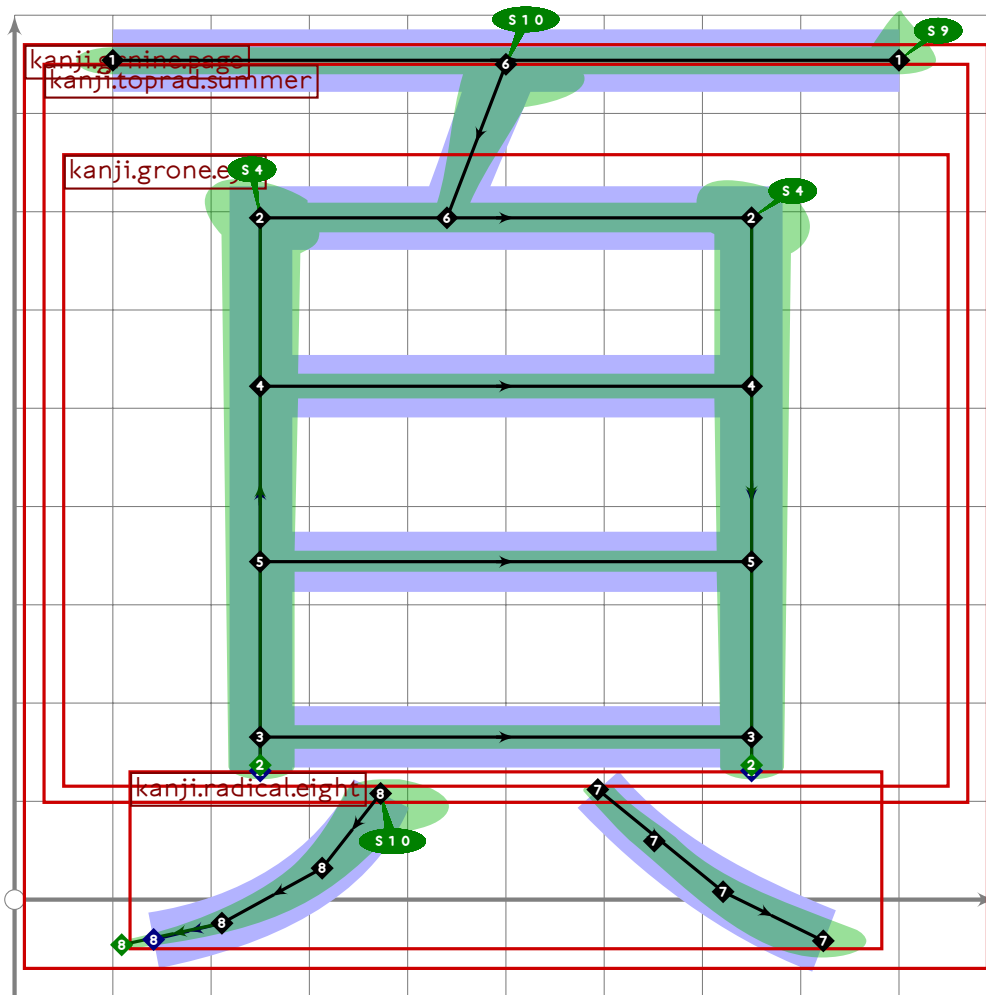
U+2FB3
tsuku.uni2FB3



```

716 % oto/on "noise"
717 begintsuglyph("uni2FB3",179);
718   kanji.grone.noise;
719   tsu_render;
720 endtsuglyph;
721

```

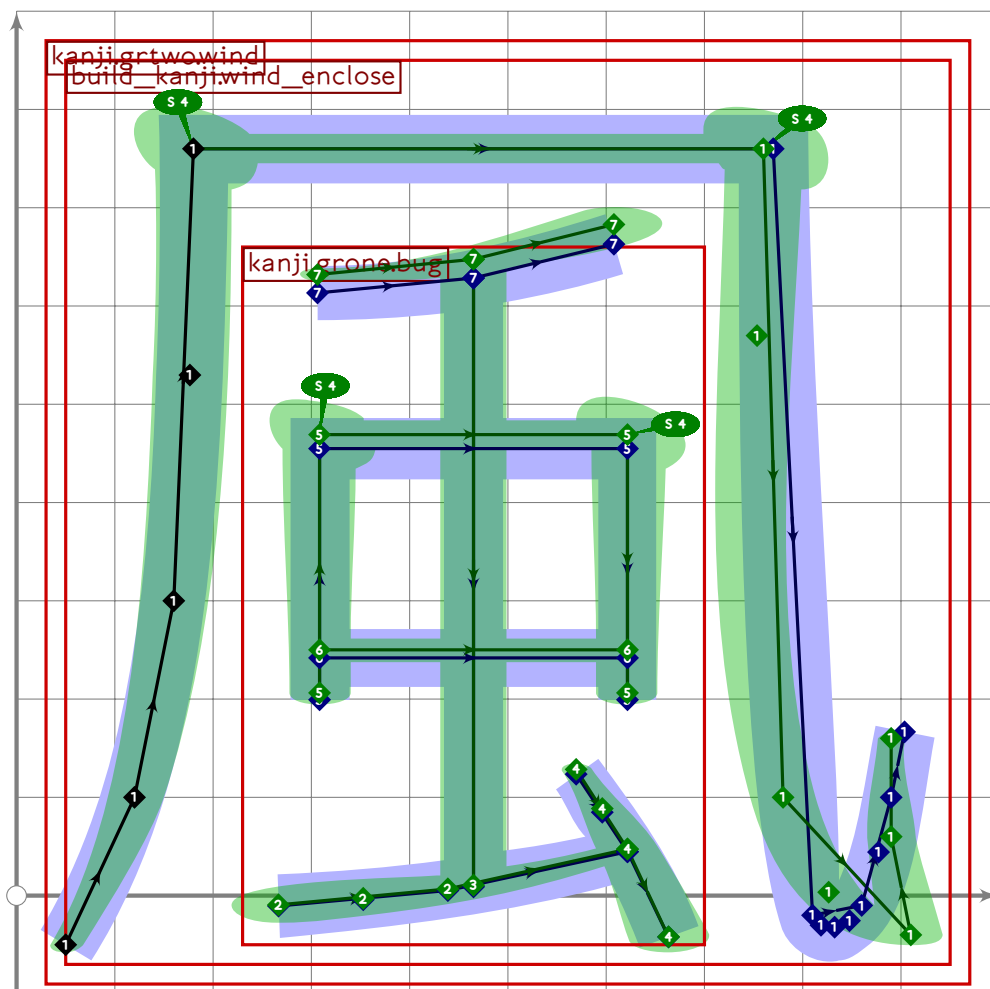


```

722 % ketsu/peeji "page"
723 begintsuglyph("uni2FB4",180);
724   kanji.grnine.page;
725   tsu_render;
726 endtsuglyph;
727

```

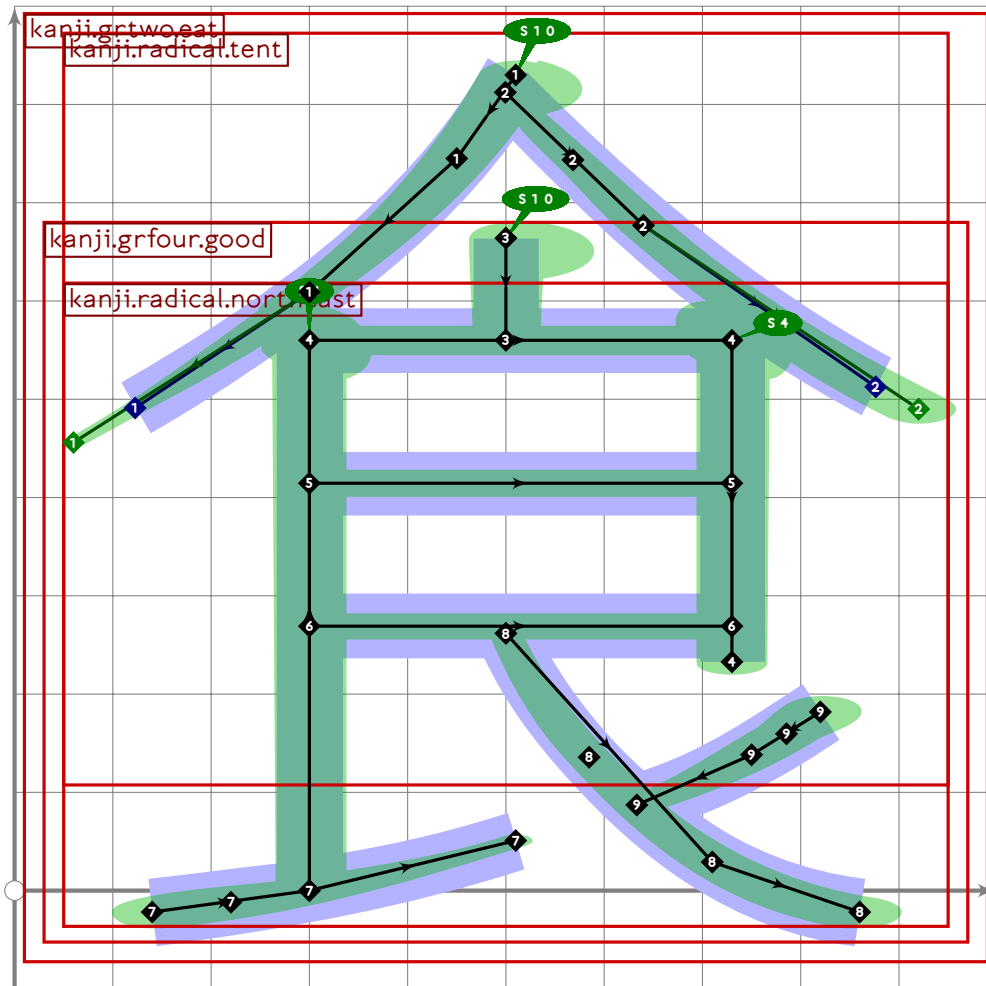
U+2FB5
tsuku.uni2FB5



```

728 % fuu/kaze "wind"
729 begintsuglyph("uni2FB5";181);
730   kanji.grtwowind;
731   tsu_render;
732 endtsuglyph;
733

```

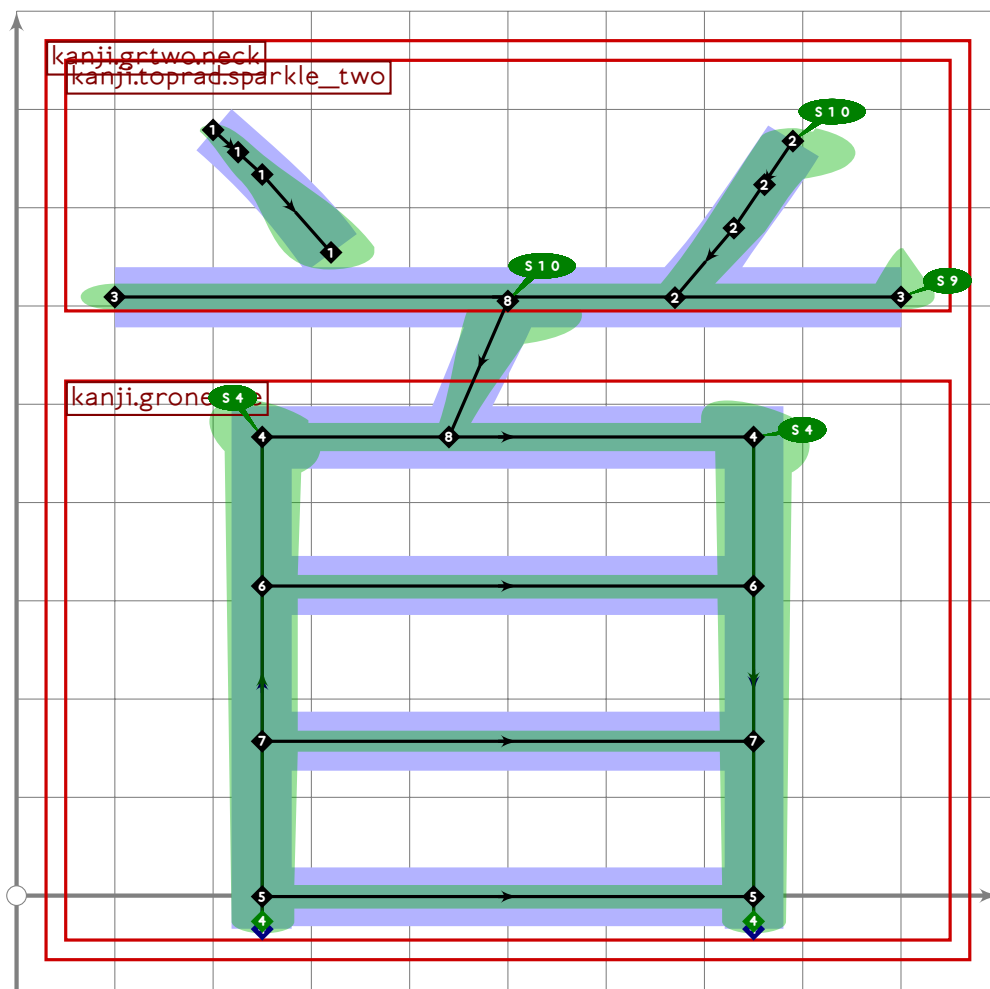


```

734 % shoku/ta "eat"
735 begintsuglyph("uni2FB7",183);
736   kanji.grtwo.eat;
737   tsu_render;
738 endtsuglyph;
739

```

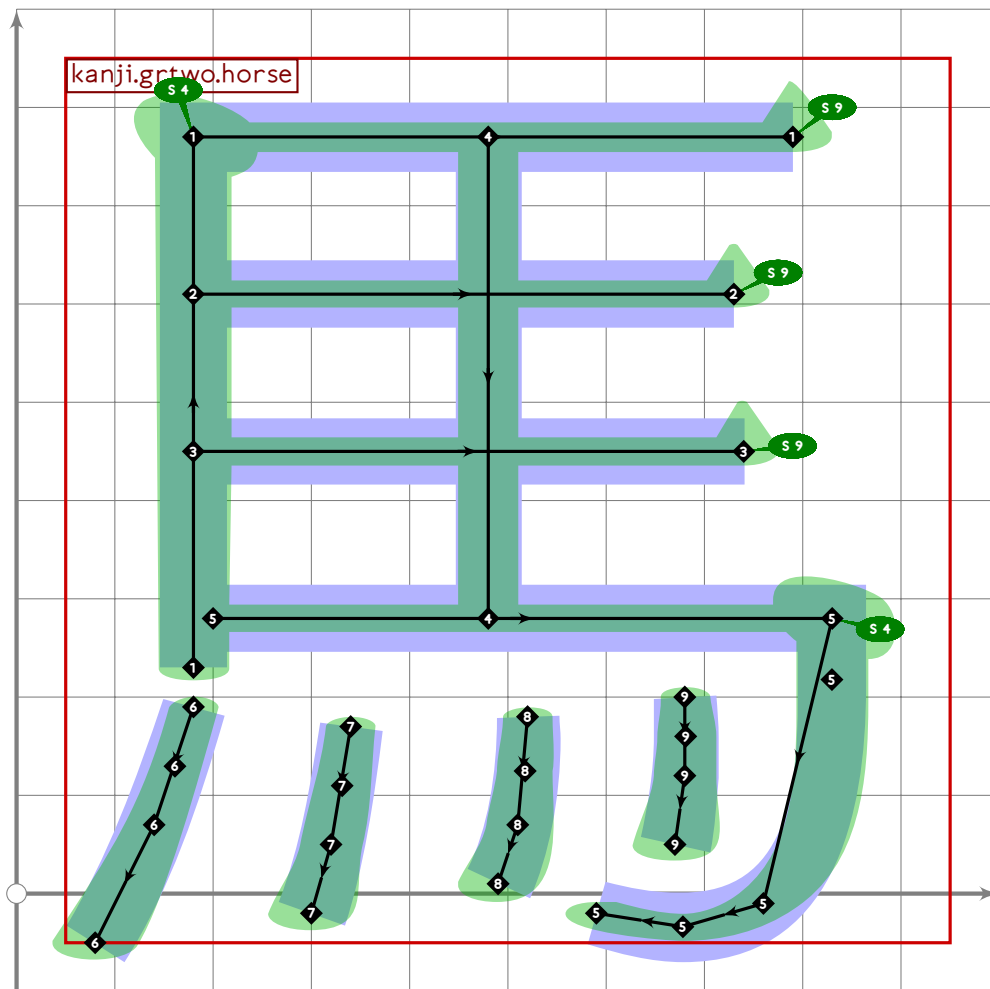
U+2FB8
tsuku.uni2FB8



```

740 % shu/kubi "neck"
741 begintsuglyph("uni2FB8",184);
742   kanji.grtwo.neck;
743   tsu_render;
744 endtsuglyph;
745

```

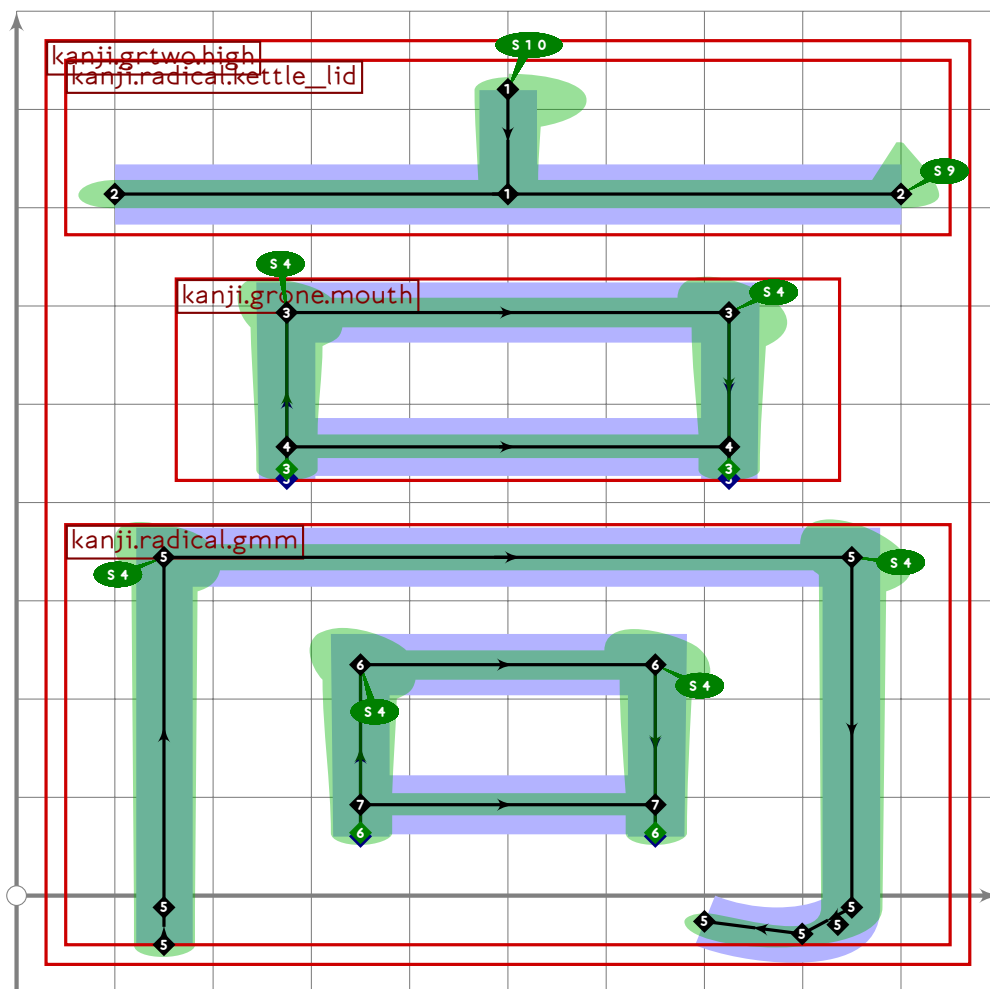


```

746 % ba/uma "horse"
747 begintsuglyph("uni2FBA",186);
748   kanji.grtwo.horse;
749   tsu_render;
750 endtsuglyph;
751

```

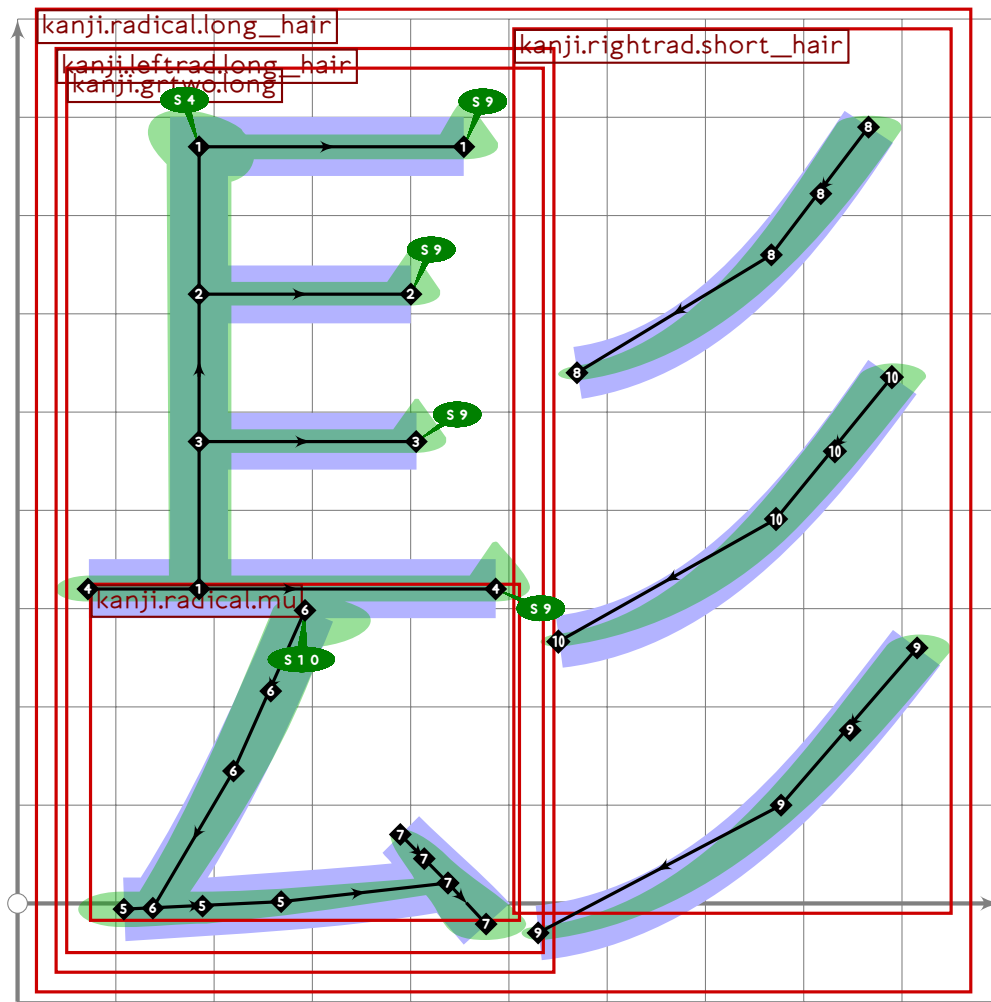
U+2FBC
tsuku.uni2FBC



```

752 % kou/taka "high"
753 begintsuglyph("uni2FBC";188);
754   kanji.grtwo.high;
755   tsu_render;
756 endtsuglyph;
757

```

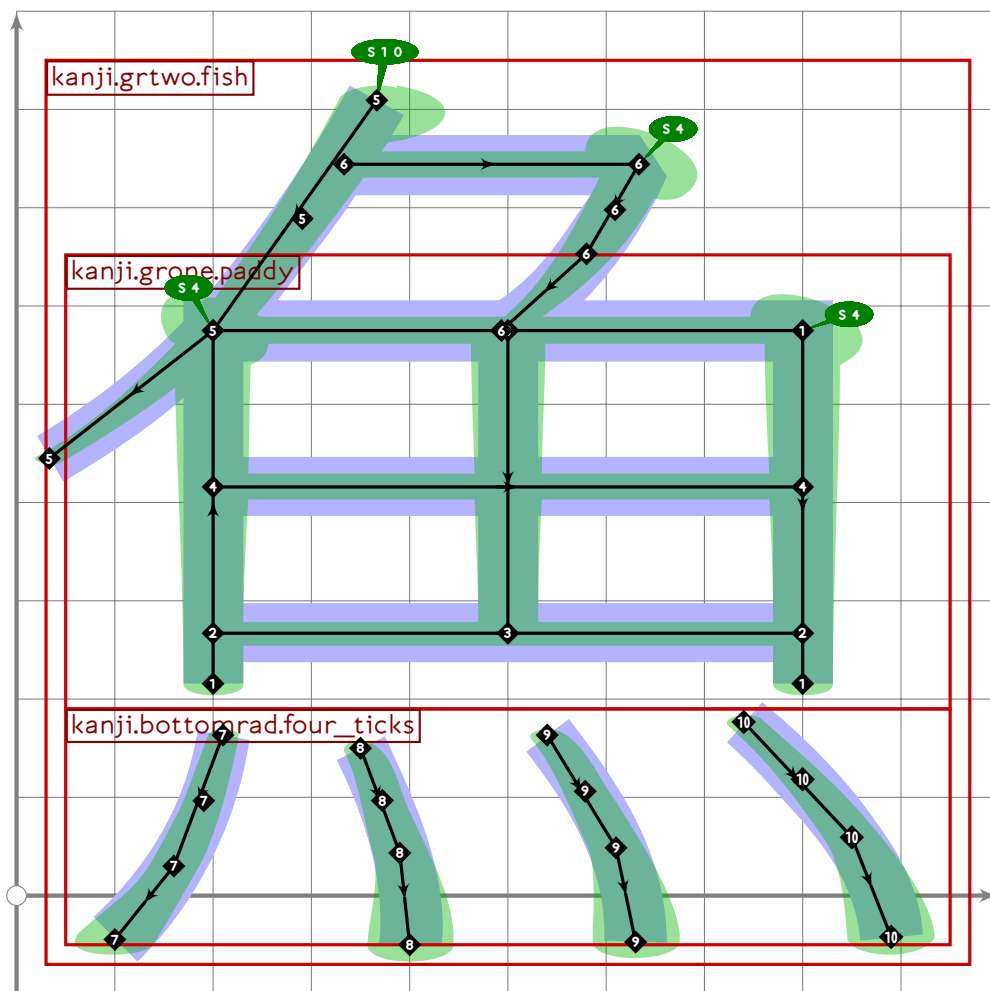



```

758 % hyuu/kamigashira "long hair radical"
759 begintsuglyph("uni2FBD";189);
760 kanji.radical.long_hair;
761 tsu_render;
762 endtsuglyph;
763

```

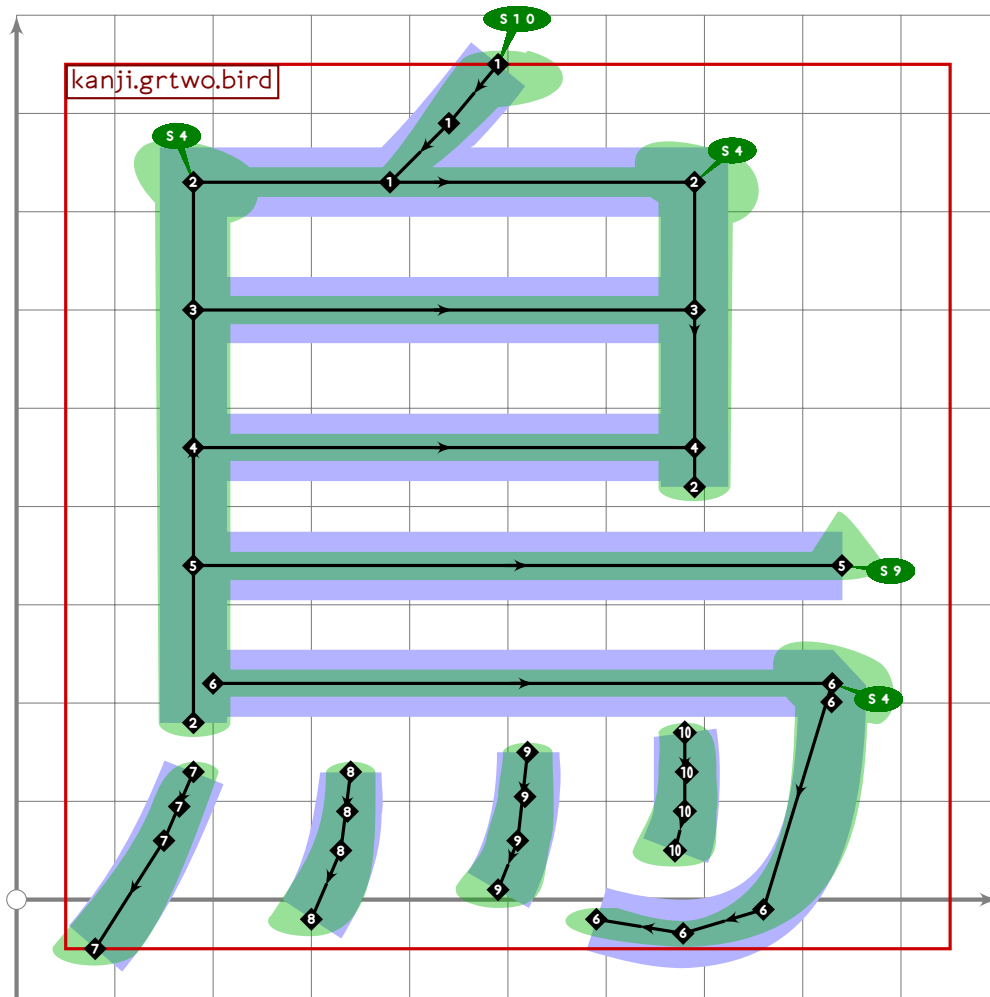
U+2FC2
tsuku.uni2FC2



```

764 % gyo/sakana "fish"
765 begintsuglyph("uni2FC2";194);
766   kanji.grtwo.fish;
767   tsu_render;
768 endtsuglyph;
769

```

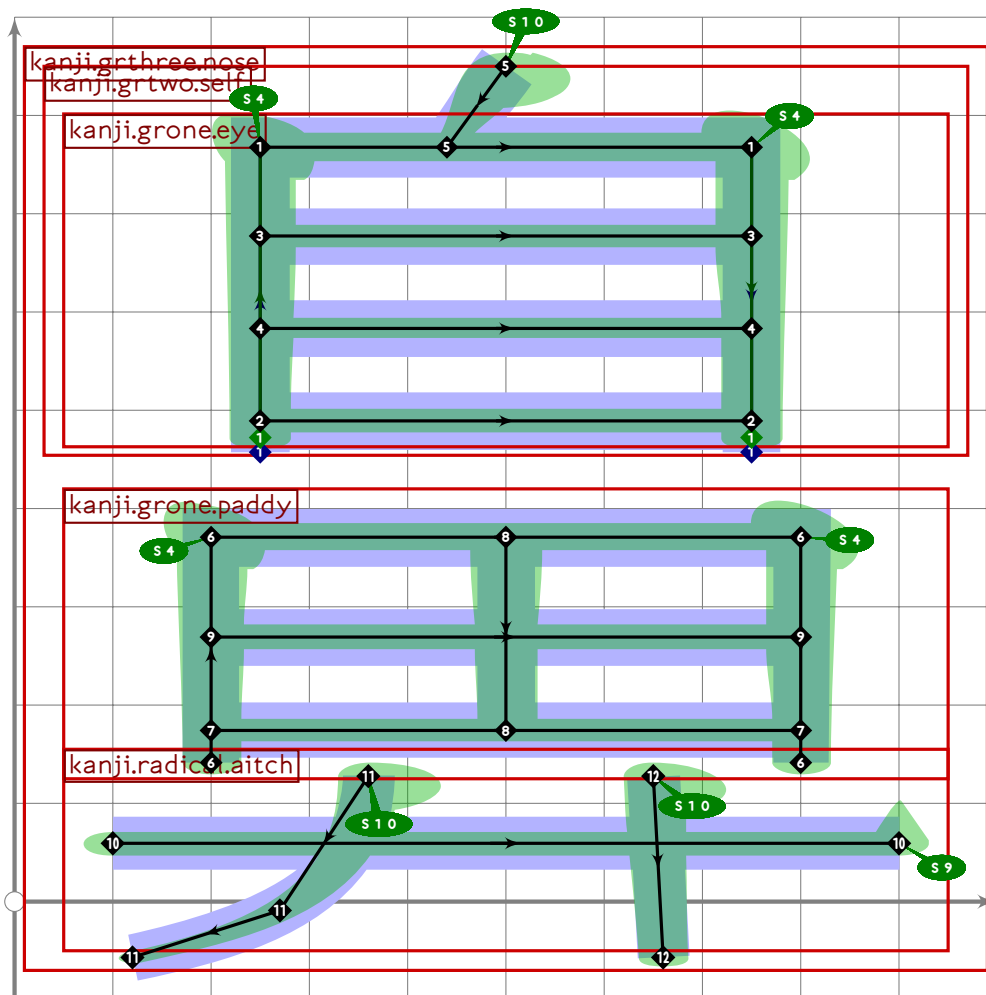


```

770 % chou/tori "bird"
771 begintsuglyph("uni2FC3";195);
772   kanji.grtwo.bird;
773   tsu_render;
774 endtsuglyph;
775

```

U+2FD0
tsuku.uni2FD0



```

776 % bi/hana "nose"
777 begintsuglyph("uni2FD0";208);
778   kanji.grthree.nose;
779   tsu_render;
780 endsuglyph;
781
782
783

```

Ideographic Description Characters

```

784 % IDEOGRAPHIC DESCRIPTION CHARACTERS
785
786 numeric idc_corners;
787
788 vardef idc_horiz(expr v,ha,hb) =
789   for h:=ha upto hb:
790     if h<hb: idc_corners[h][v].r:=1; fi;
791     if h>ha: idc_corners[h][v].l:=1; fi;
792   endfor;
793 enddef;
794

```

```

795 vardef idc_vert(expr h,va,vb) =
796   for v:=va upto vb:
797     if v<vb: idc_corners[h][v].d:=1; fi;
798     if v>va: idc_corners[h][v].u:=1; fi;
799   endfor;
800 enddef;
801
802 vardef idc_rect(expr ur,ll) =
803   idc_horiz(ypart ur,xpart ur,xpart ll);
804   idc_vert(xpart ur,ypart ll,ypart ur);
805   idc_vert(xpart ll,ypart ll,ypart ur);
806   idc_horiz(ypart ll,xpart ur,xpart ll);
807 enddef;
808
809 transform idc_drawxf;
810 (-1,1) transformed idc_drawxf=(50,50);
811 (97,1) transformed idc_drawxf=(950,50);
812 (97,97) transformed idc_drawxf=(950,850);
813
814 vardef idc_render =
815   begingroup
816     save glyph;
817     path glyph;
818     for h:=0 upto 6:
819       for v:=0 upto 6:
820         if (known idc_corners[h][v].l) or (known idc_corners[h][v].r)
821           or (known idc_corners[h][v].u) or (known idc_corners[h][v].d):
822           if fine_idcs:
823             glyph:=(
824               (-1,1)-if known idc_corners[h][v].d: (-1,2.5)-(-1,2.5)- fi
825               (1,1)-if known idc_corners[h][v].r: (2.5,1)-(2.5,1)- fi
826               (1,-1)-if known idc_corners[h][v].u: (1,2.5)-(-1,2.5)- fi
827               (-1,-1)-if known idc_corners[h][v].l: (-2.5,-1)-(-2.5,-1)- fi
828               cycle) shifted ((h,v) scaled 16);
829             dangerousFill glyph transformed idc_drawxf;
830             if known idc_corners[h][v].d:
831               glyph:=((-1,5.5)-(-1,10.5)-(1,10.5)-(1,5.5)-cycle)
832               shifted ((h,v) scaled 16);
833               dangerousFill glyph transformed idc_drawxf;
834             fi;
835             if known idc_corners[h][v].r:
836               glyph:=((5.5,-1)-(5.5,1)-(10.5,1)-(10.5,-1)-cycle)
837               shifted ((h,v) scaled 16);
838               dangerousFill glyph transformed idc_drawxf;
839             fi;
840           else:
841             glyph:=(
842               (-2,2)-if known idc_corners[h][v].d: (-2,6)-(2,6)- fi

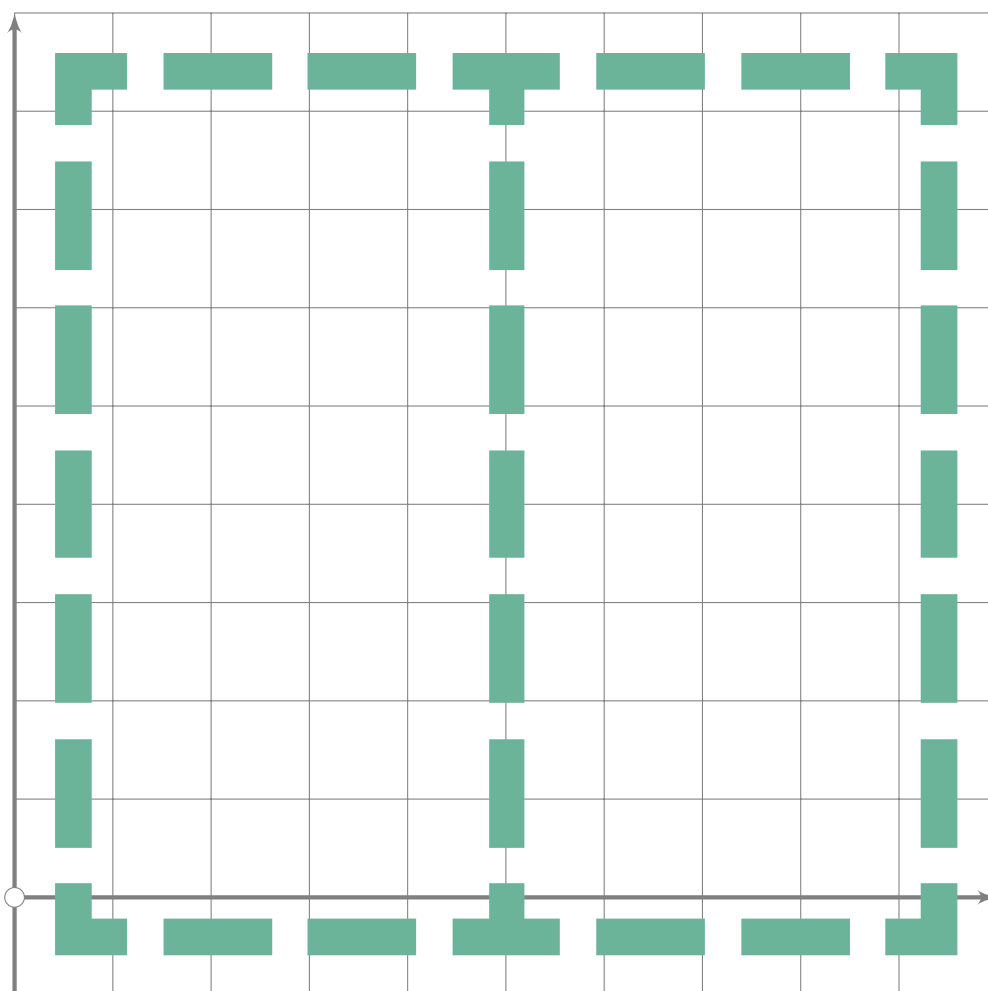
```

U+2FF0
tsuku.uni2FF0

```

843         (2,2)-if known idc_corners[h][v].r: (6,2)-(6,2)- fi
844         (2,-2)-if known idc_corners[h][v].u: (2,6)-(-2,6)- fi
845         (-2,-2)-if known idc_corners[h][v].l: (-6,2)-(-6,2)- fi
846         cycle) shifted ((h,v) scaled 16);
847         dangerousFill glyph transformed idc_drawxf;
848     fi;
849 fi;
850 idc_corners[h][v].l:=whatever;
851 idc_corners[h][v].r:=whatever;
852 idc_corners[h][v].u:=whatever;
853 idc_corners[h][v].d:=whatever;
854 endfor;
855 endfor;
856 endgroup;
857 enddef;
858

```



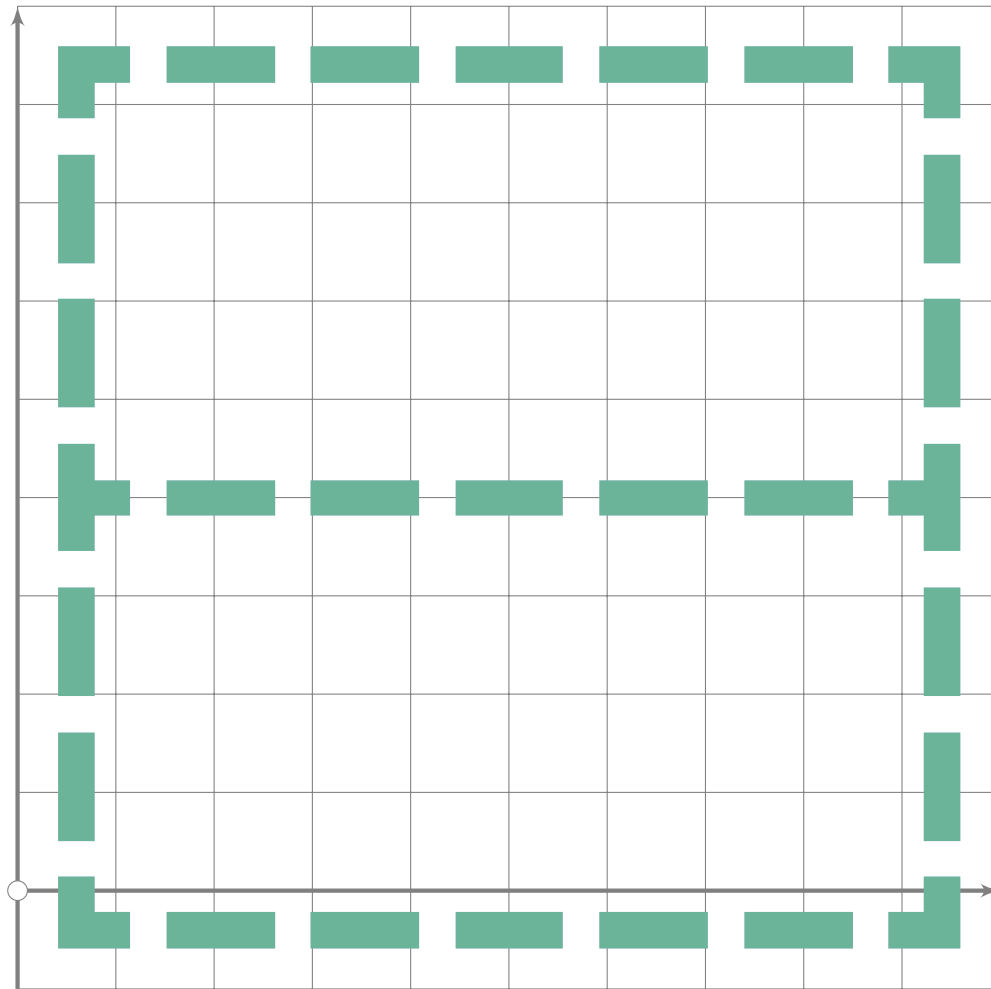
```

859 % left to right
860 begintsuglyph("uni2FF0",240);
861 idc_rect((0,6),(6,0));
862 idc_vert(3,0,6);
863 idc_render;

```

864 endtsuglyph;

865



866 % above to below

867 begint Suglyph("uni2FF1";241);

868 idc_rect((0,6),(6,0));

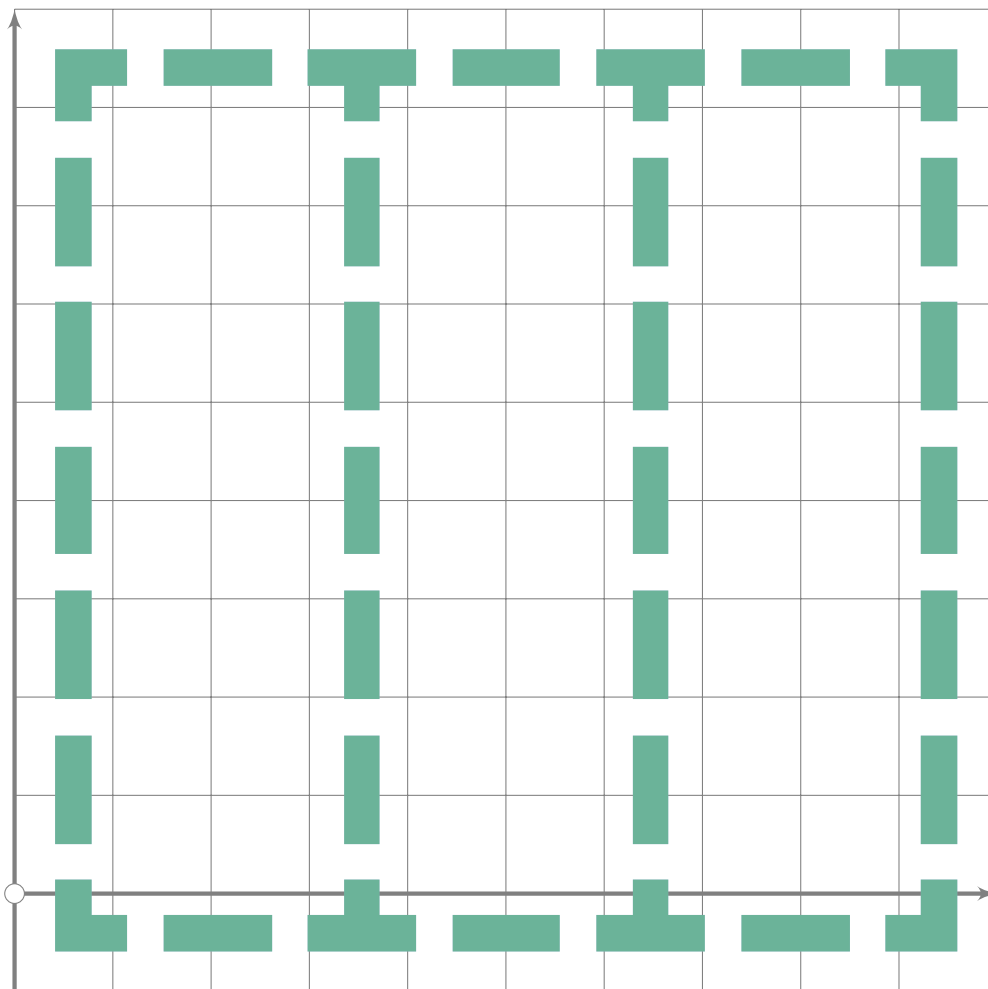
869 idc_horiz(3,0,6);

870 idc_render;

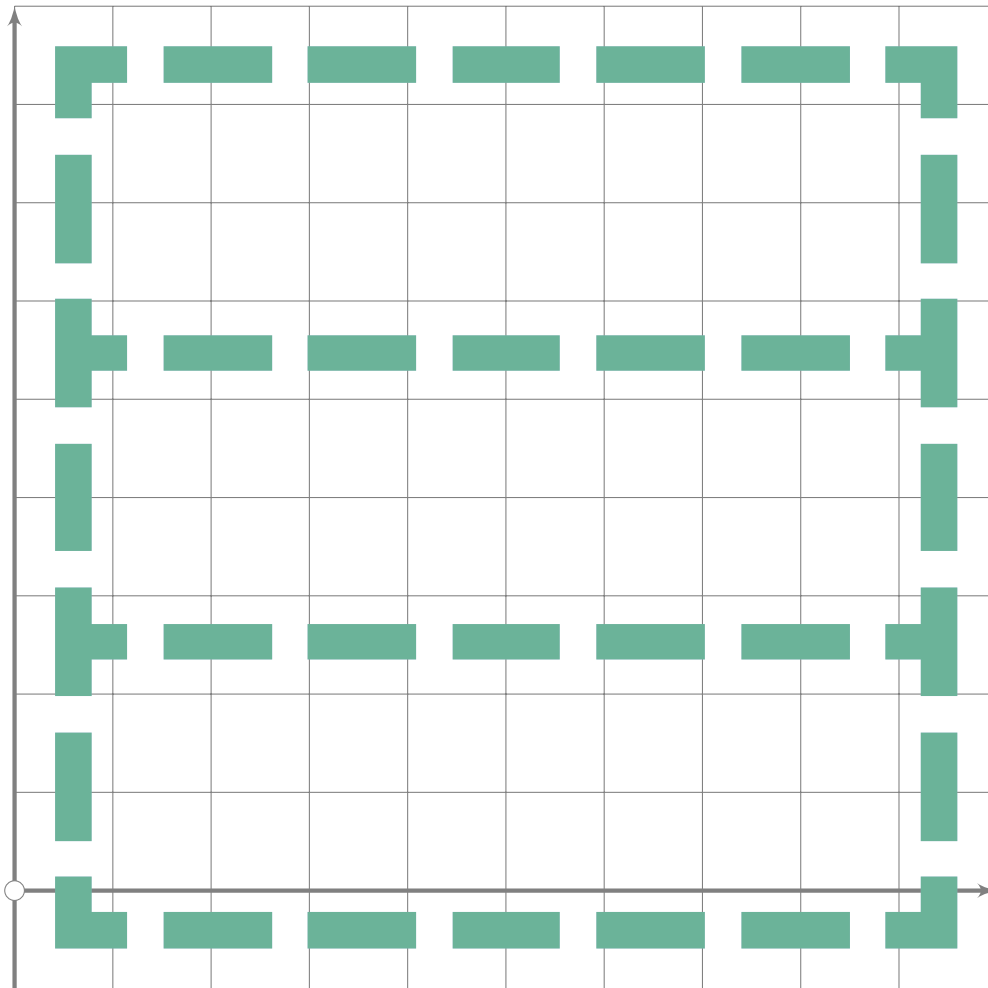
871 endtsuglyph;

872

U+2FF2
tsuku.uni2FF2



```
873 % left to middle to right
874 begintsuglyph("uni2FF2",242);
875   idc_rect((0,6),(6,0));
876   idc_vert(2,0,6);
877   idc_vert(4,0,6);
878   idc_render;
879 endtsuglyph;
880
```

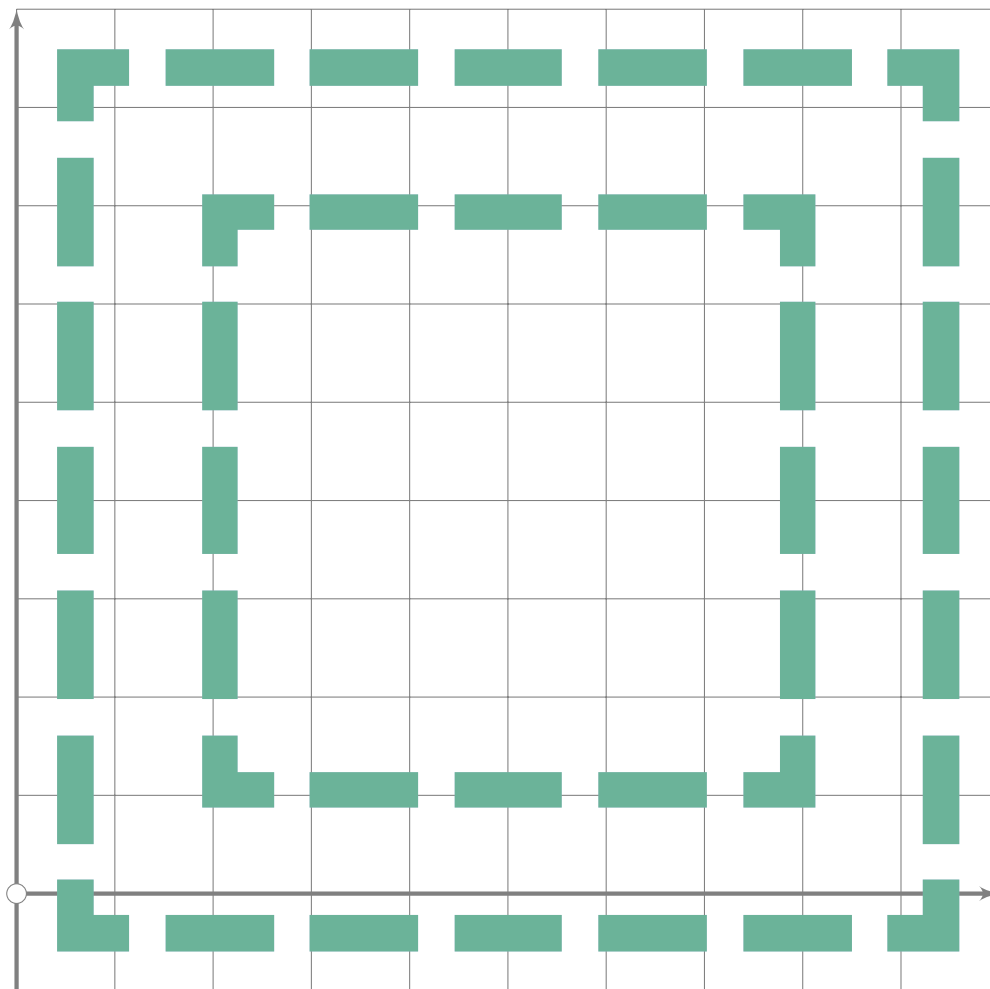



```

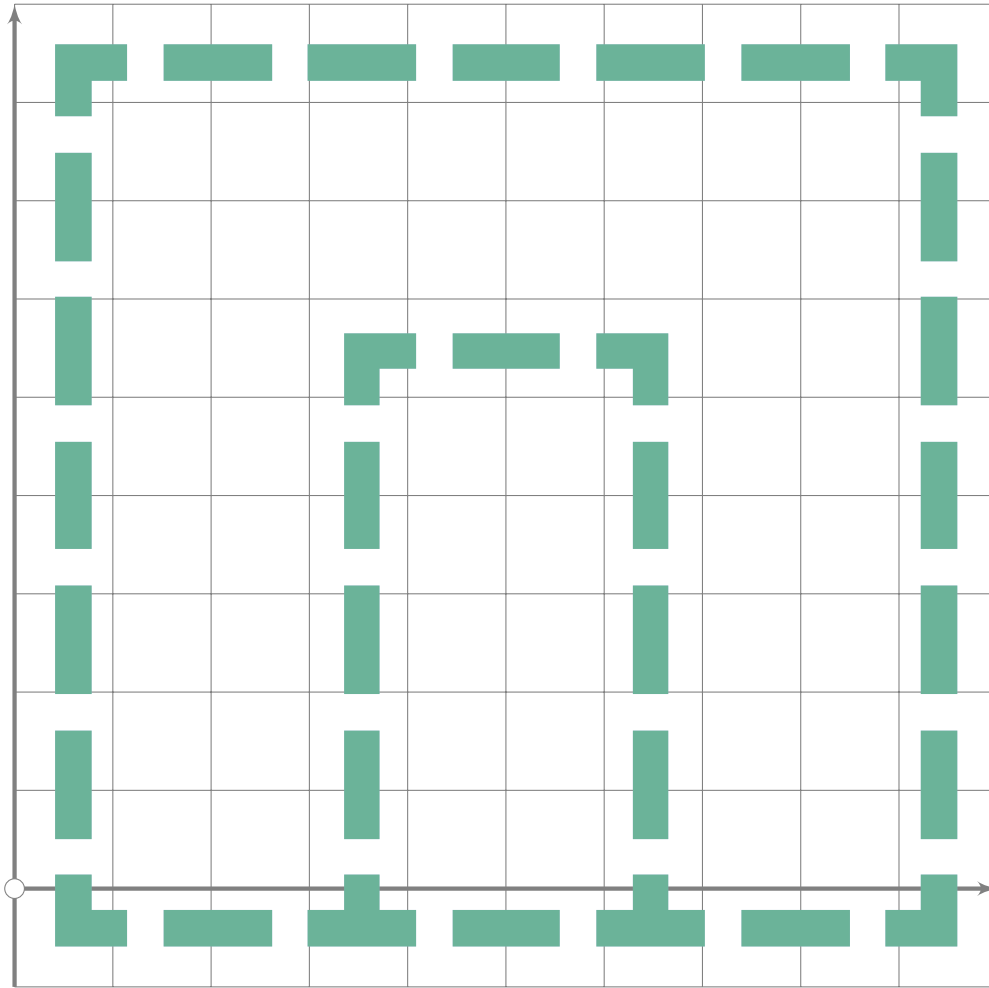
881 % above to middle to below
882 begintsuglyph("uni2FF3",243);
883   idc_rect((0,6),(6,0));
884   idc_horiz(2,0,6);
885   idc_horiz(4,0,6);
886   idc_render;
887 endtsuglyph;
888

```

U+2FF4
tsuku.uni2FF4



```
889 % full surround
890 begint Suglyph("uni2FF4";244);
891   idc_rect((0,6),(6,0));
892   idc_rect((1,5),(5,1));
893   idc_render;
894 endtsuglyph;
895
```

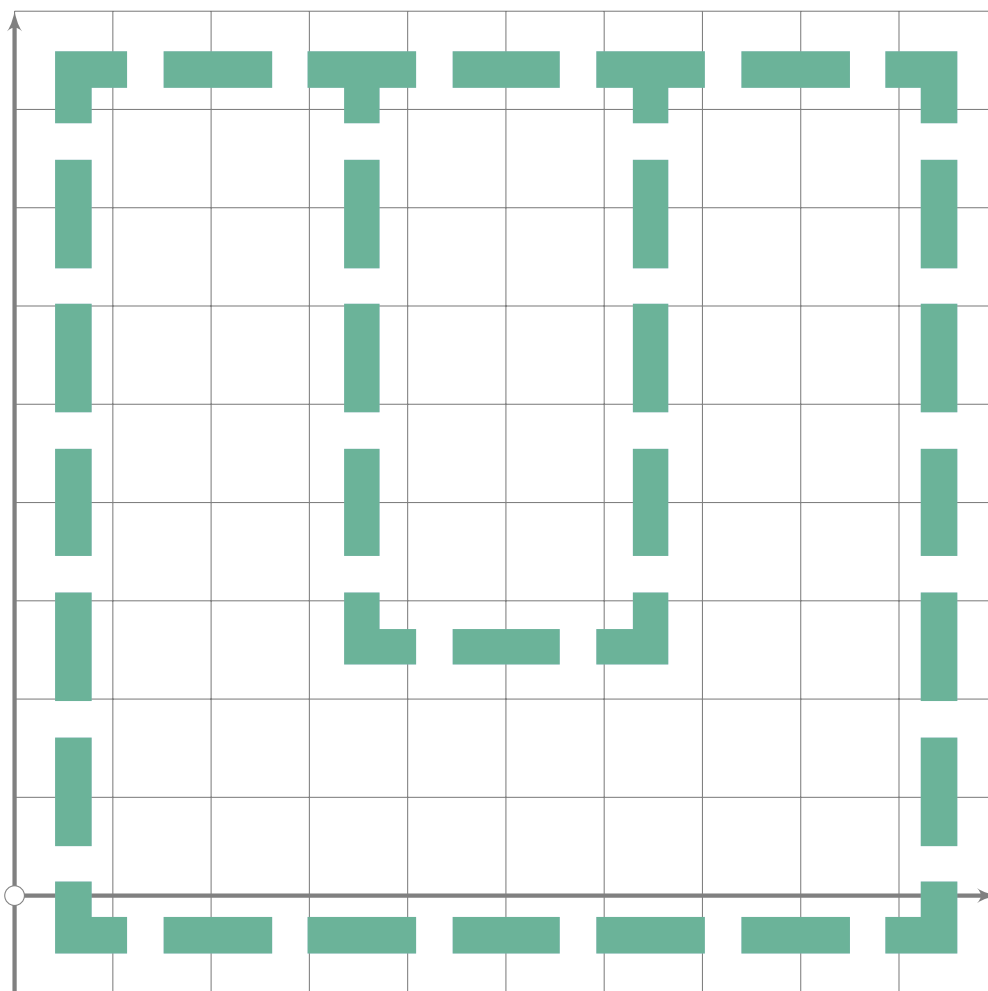


```

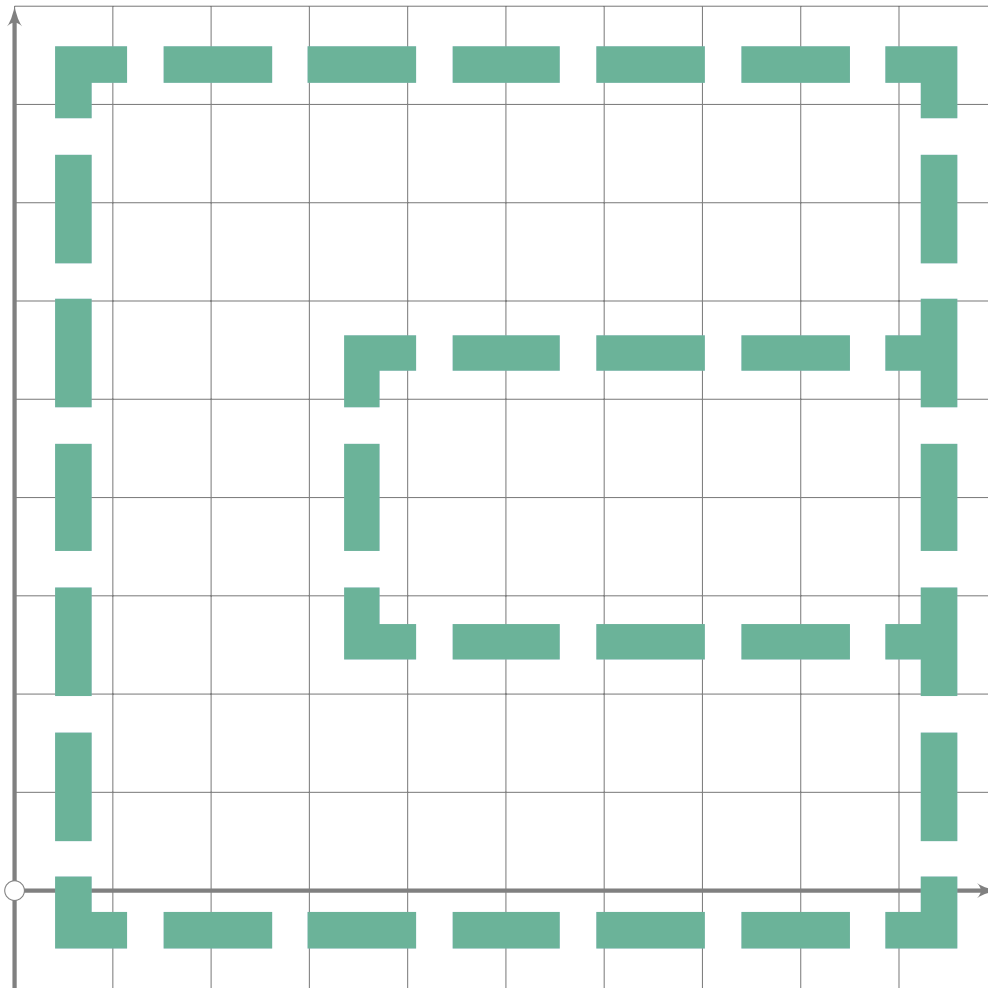
896 % surround from above
897 begint Suglyph("uni2FF5",245);
898   idc_rect((0,6),(6,0));
899   idc_rect((2,4),(4,0));
900   idc_render;
901 endtsuglyph;
902

```

U+2FF6
tsuku.uni2FF6



```
903 % surround from below
904 begint Suglyph("uni2FF6";246);
905   idc_rect((0,6),(6,0));
906   idc_rect((2,6),(4,2));
907   idc_render;
908 endtsuglyph;
909
```

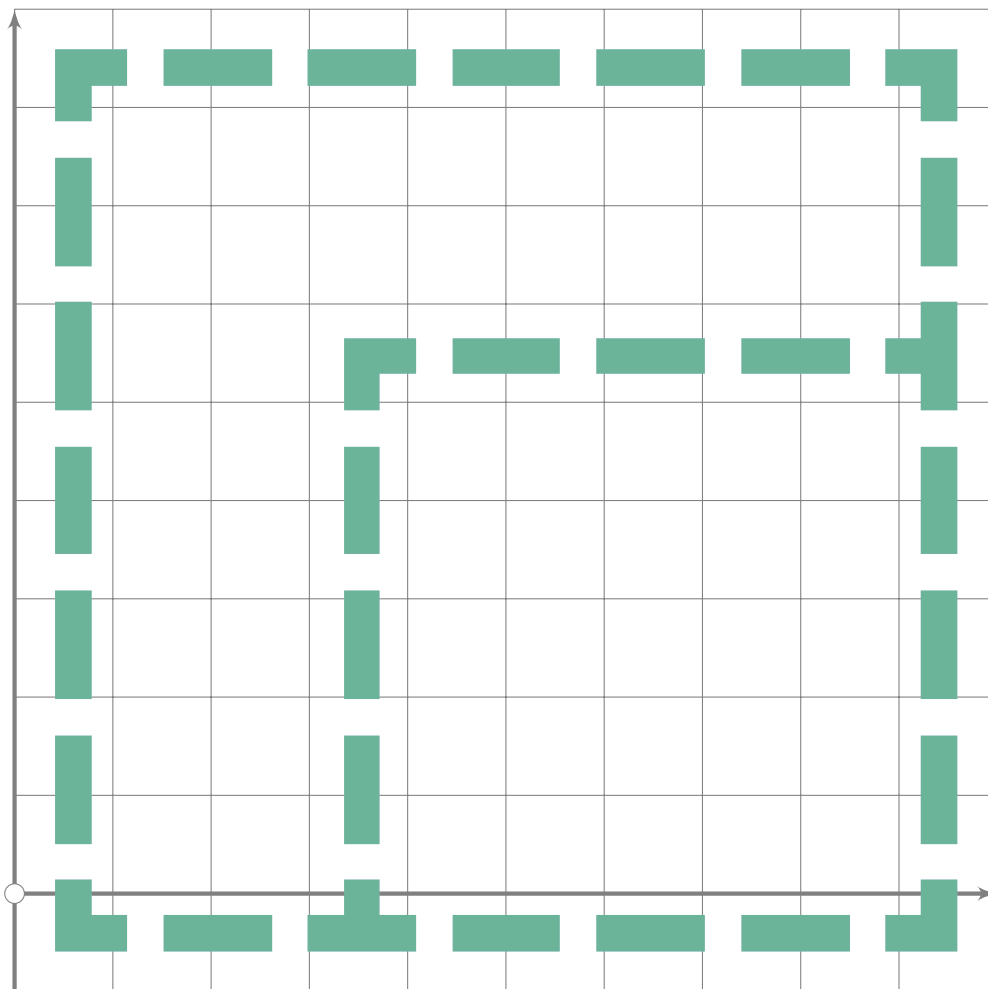


```

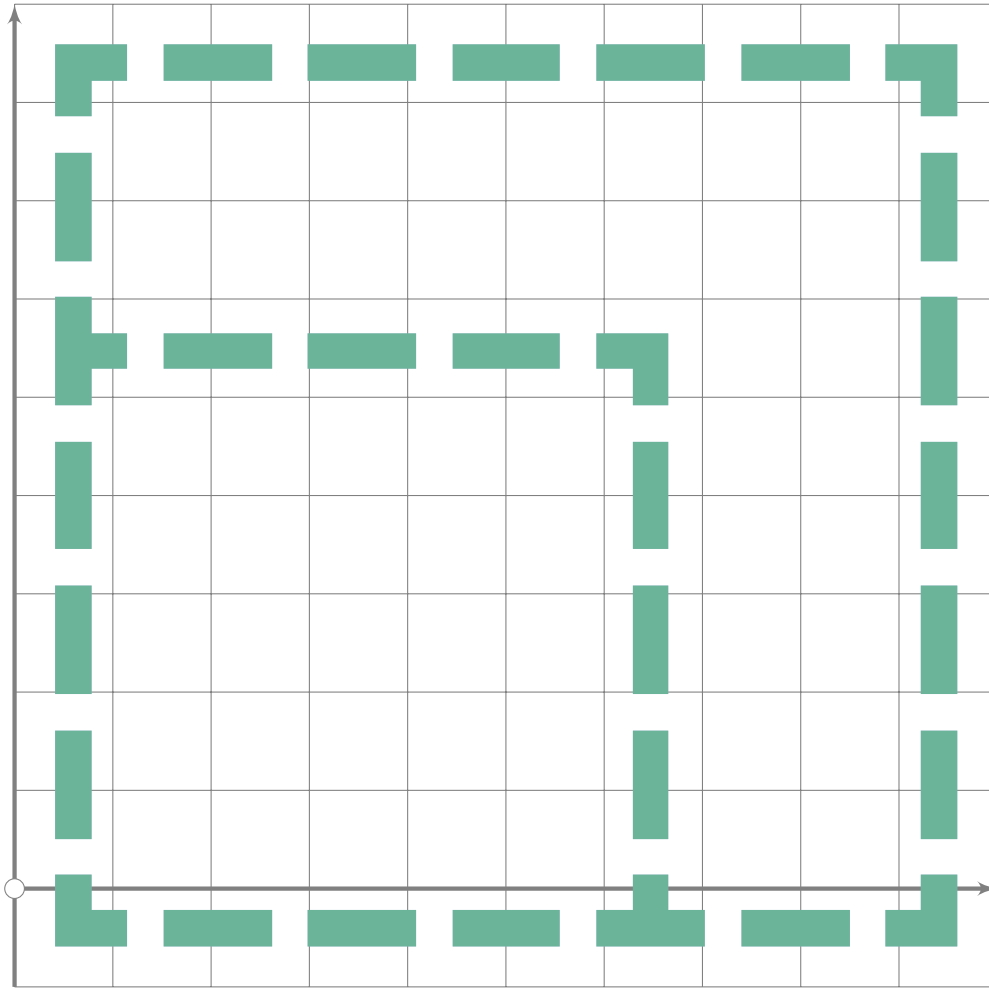
910 % surround from left
911 begint Suglyph("uni2FF7",247);
912   idc_rect((0,6),(6,0));
913   idc_rect((2,4),(6,2));
914   idc_render;
915 endtsuglyph;
916

```

U+2FF8
tsuku.uni2FF8



```
917 % surround from upper left
918 begint Suglyph("uni2FF8",248);
919   idc_rect((0,6),(6,0));
920   idc_rect((2,4),(6,0));
921   idc_render;
922 endtsuglyph;
923
```

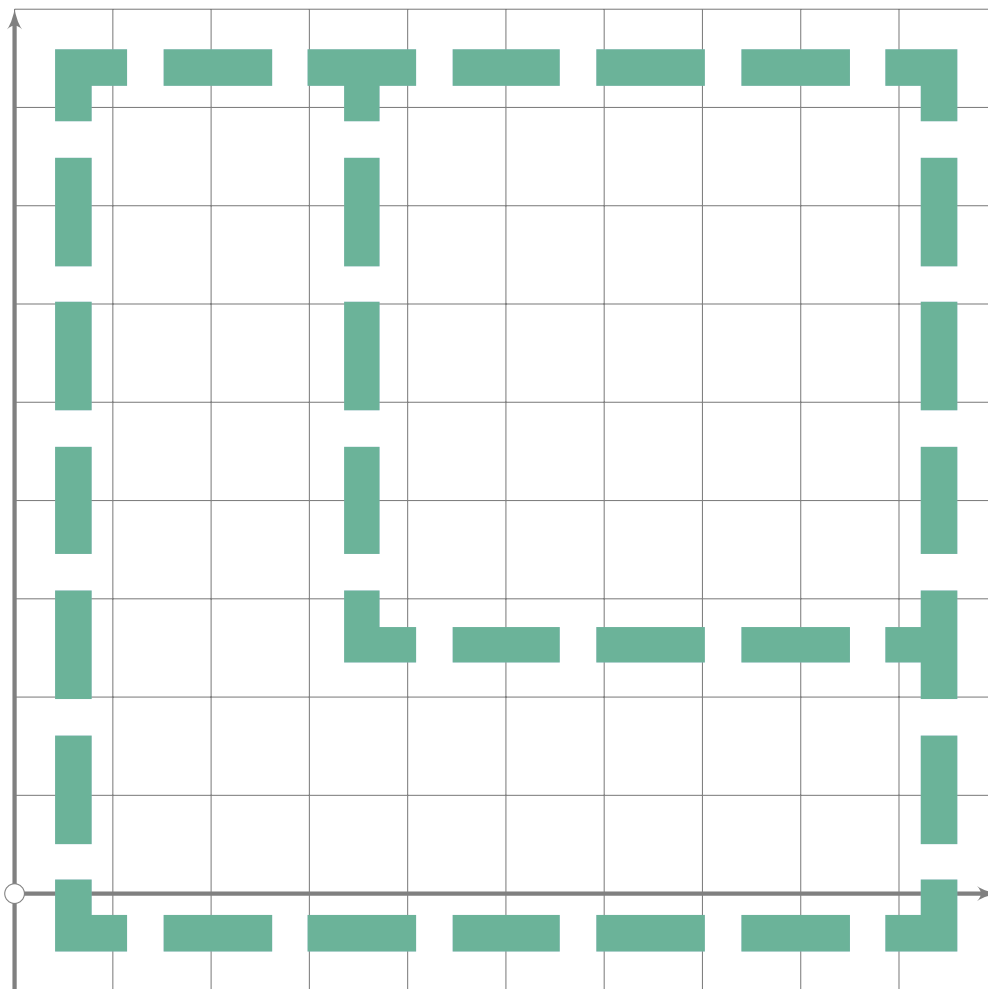


```

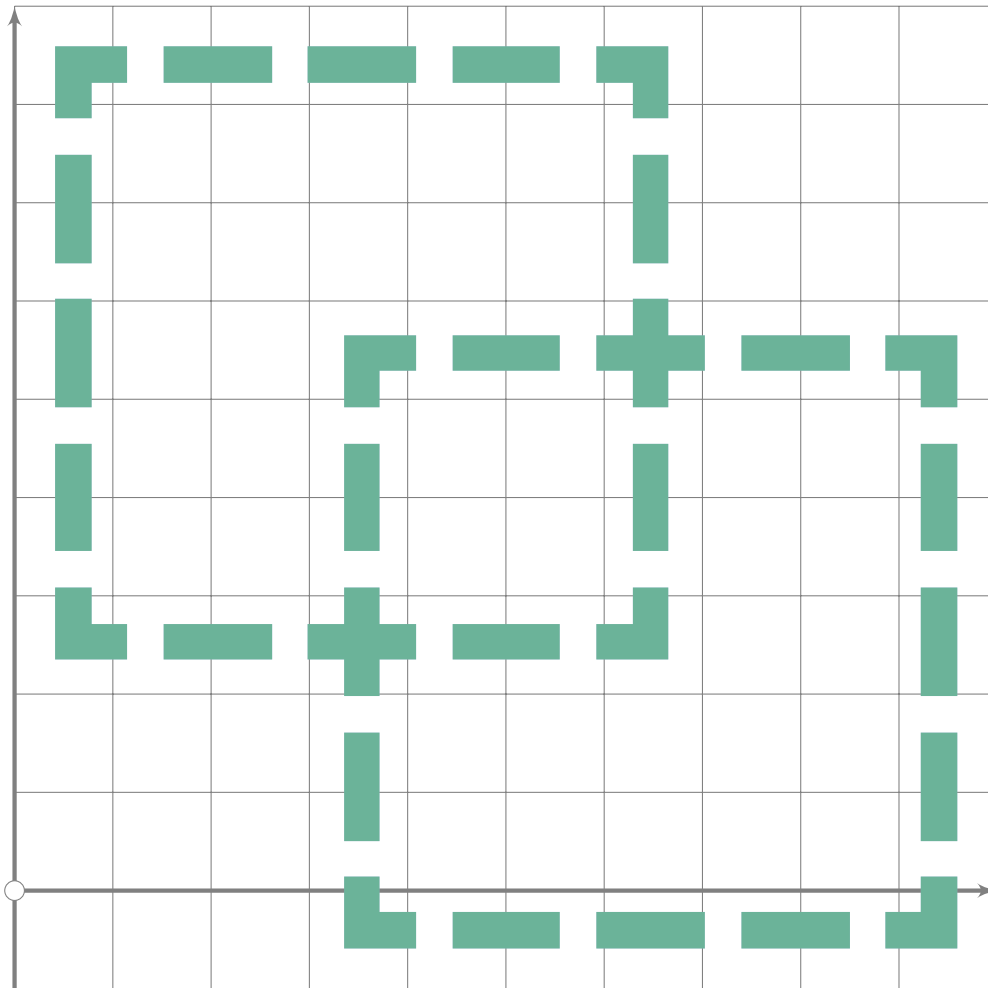
924 % surround from upper right
925 begint Suglyph("uni2FF9",249);
926   idc_rect((0,6),(6,0));
927   idc_rect((0,4),(4,0));
928   idc_render;
929 endtsuglyph;
930

```

U+2FFA
tsuku.uni2FFA



```
931 % surround from lower left
932 begint Suglyph("uni2FFA";250);
933   idc_rect((0,6),(6,0));
934   idc_rect((2,6),(6,2));
935   idc_render;
936 endtsuglyph;
937
```

```

938 % overlaid
939 begint Suglyph("uni2FFB",251);
940   idc_rect((0,6),(4,2));
941   idc_rect((2,4),(6,0));
942   idc_render;
943 endtsuglyph;
944
945
946
947 endfont;
948
949

```