

作りましょう 0.10

パラメタ方式フォントファミリ  
校とプリティプリントのソース

Tsukurimashou 0.10

Parametric Font Family  
Proofs and pretty-printed  
source code

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Proofs and pretty-printed source code for Tsukurimashou  
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Volume 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

```

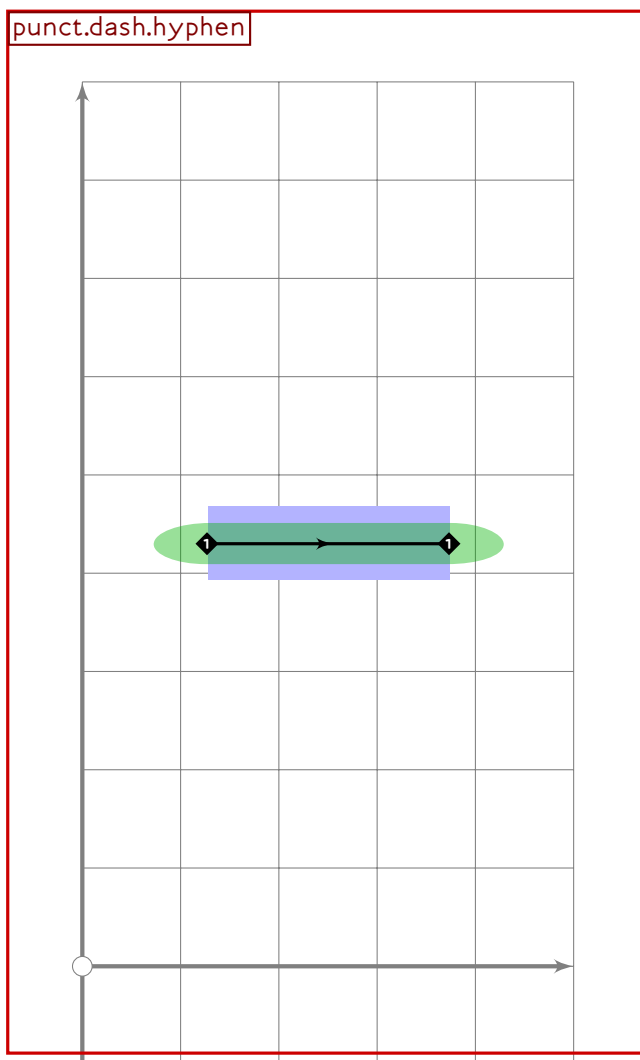
## General Punctuation

```

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

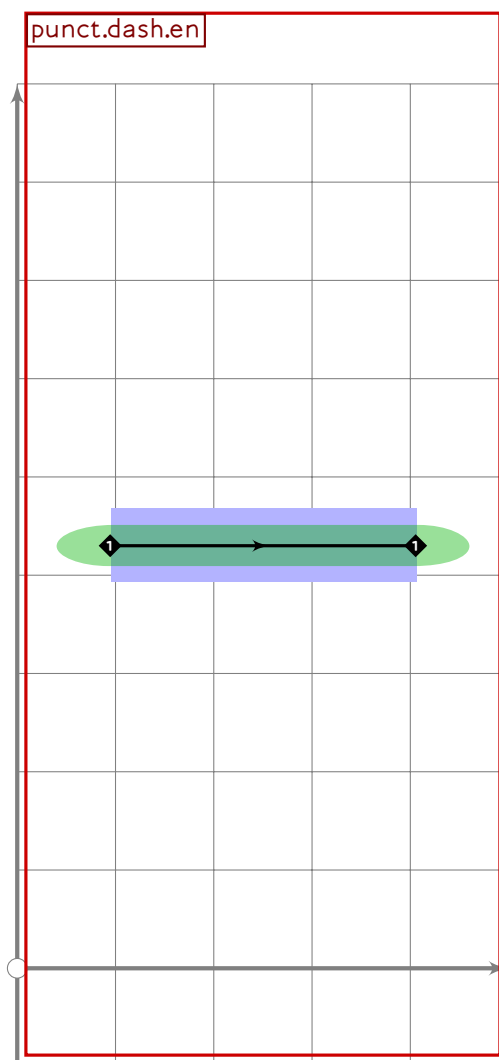
```

[see page 384]



```
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 383]



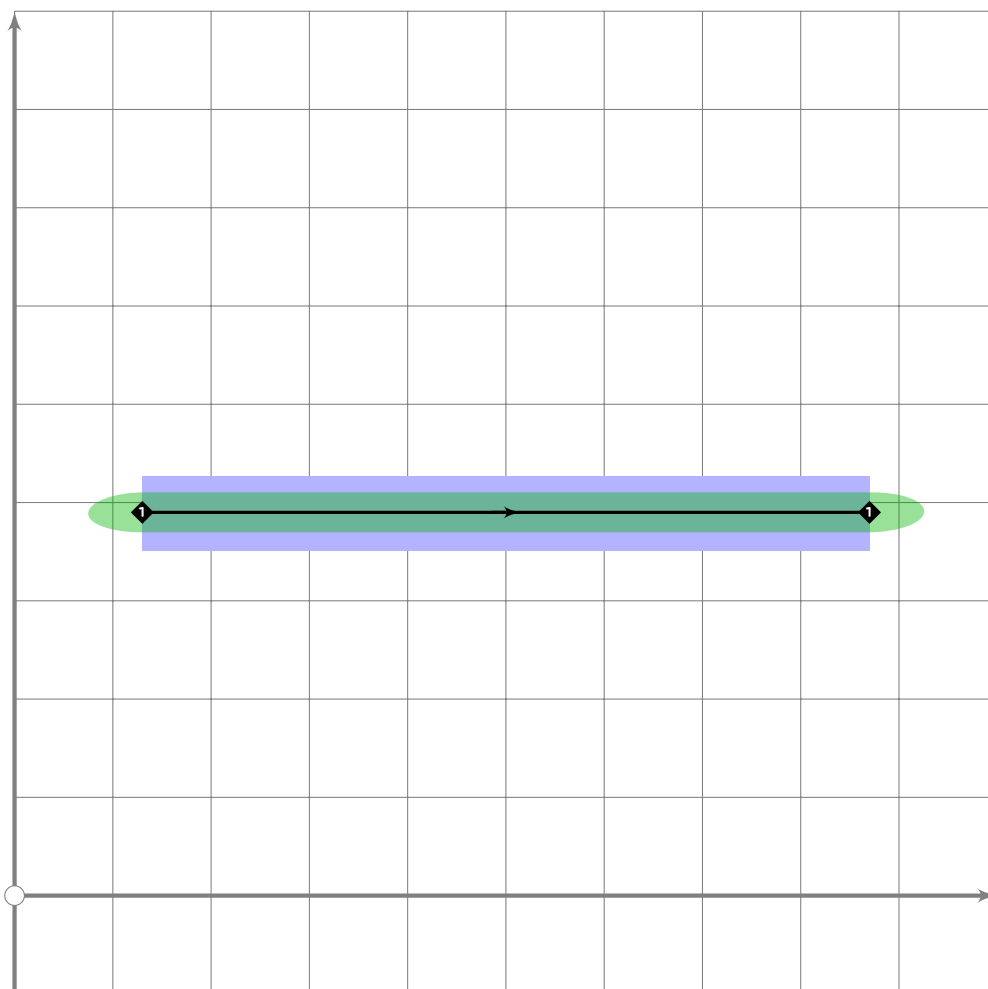
```

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

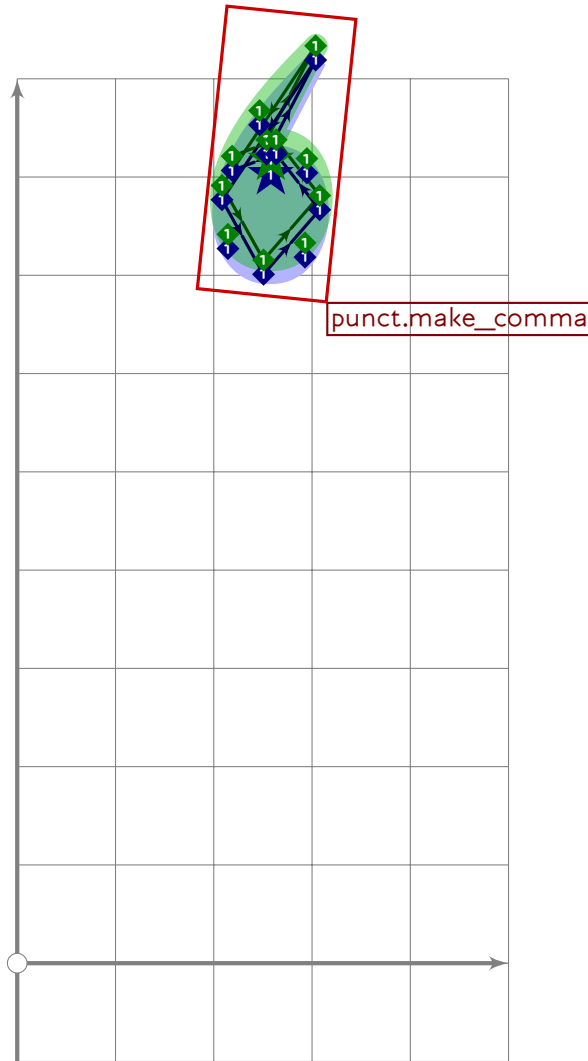
```

[see page 382]





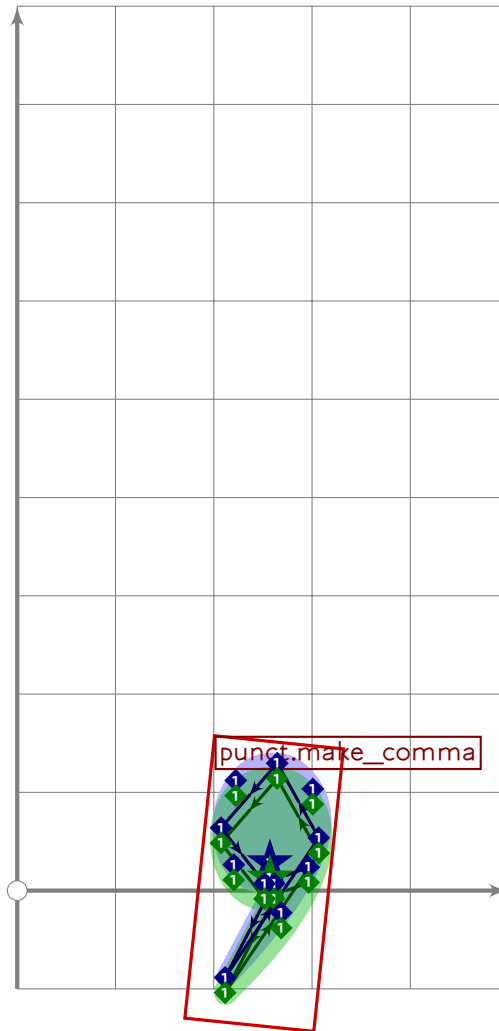
```
82 % horizontal bar
83 begintsuglyph("uni2015";21);
84   push_stroke((130,390)-(870,390),(2,2)-(2,2));
85   tsu_render;
86 endtsuglyph;
87
88 % WARNING changing rescale setting
89 tsu_rescale_half;
90
```



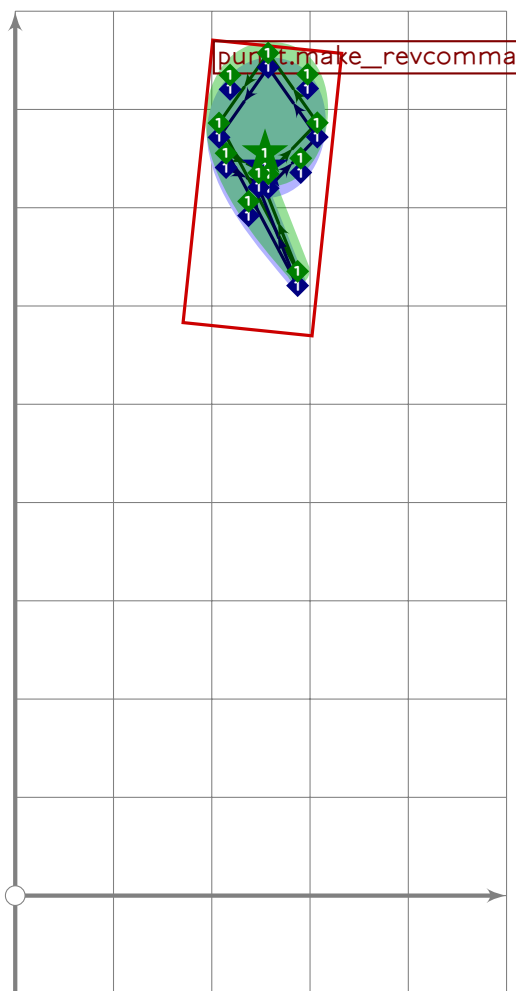
```
91 % high-6
92 begintsuglyph("quoteleft";24);
93   punct.make_comma((520,ymetric(0.94)),180);
94   tsu_render;
95 endtsuglyph;
96
```



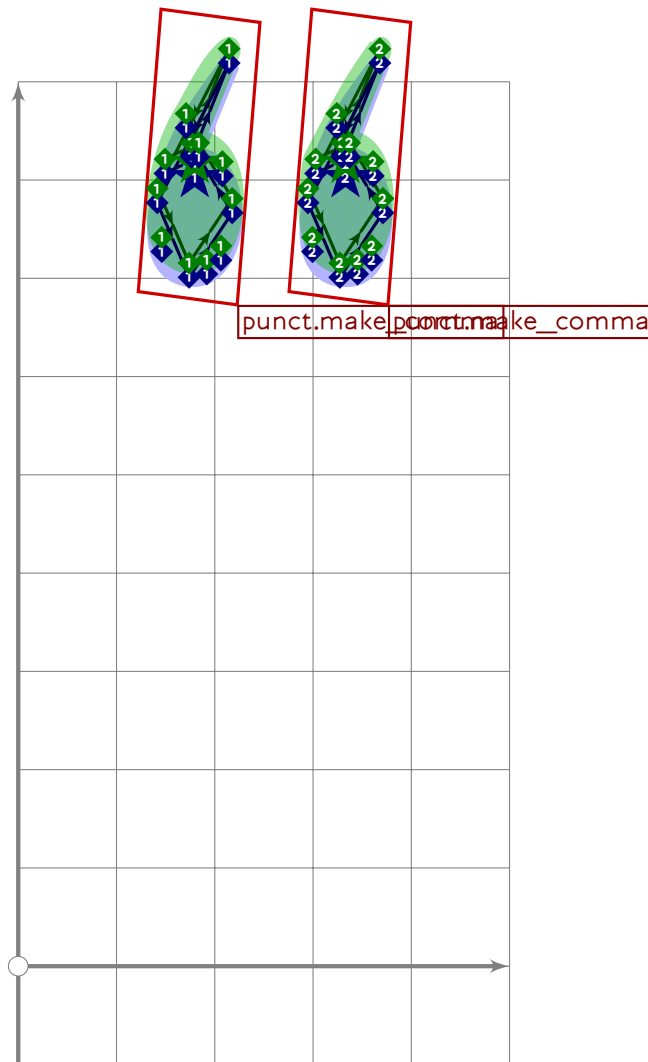
```
97 % high-9
98 begintsuglyph("quoteright";25);
99   punct.make_comma((480,vmetric(0.94)),0);
100   tsu_render;
101 endsuglyph;
102
```



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



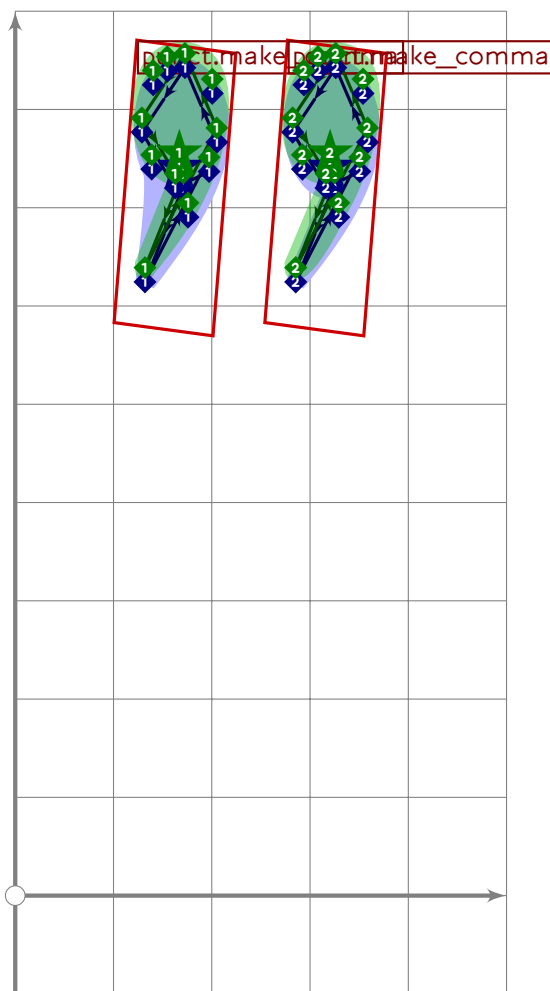
```
109 % high-rev-9
110 beginsuglyph("quotereversed",27);
111   punct.make_revcomma((520,vmetric(0.94)),0);
112   tsu_render;
113 endsuglyph;
114
```



```

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

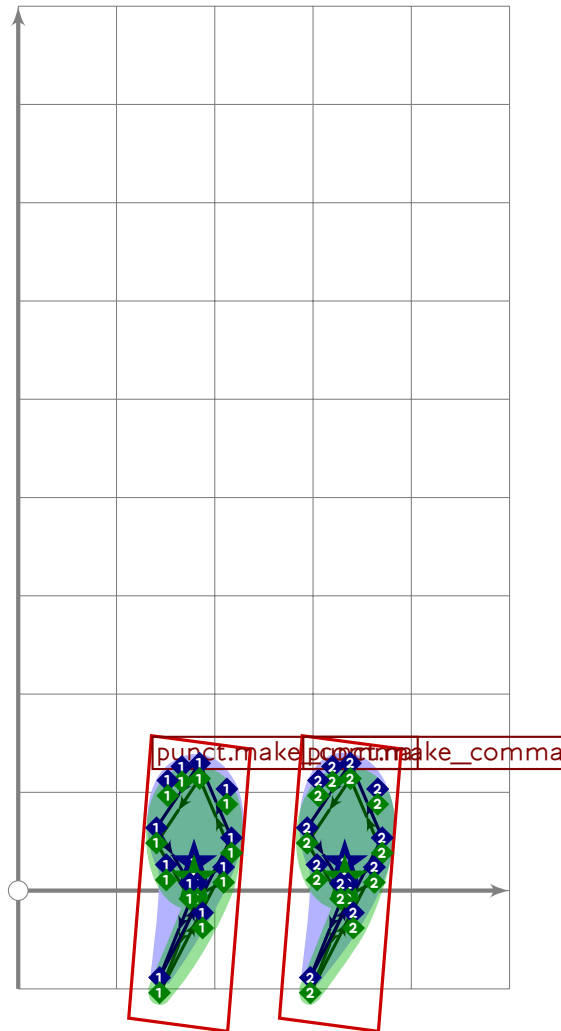
```



```

122 % high-99
123 beginsuglyph("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 endsuglyph;
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

```





```

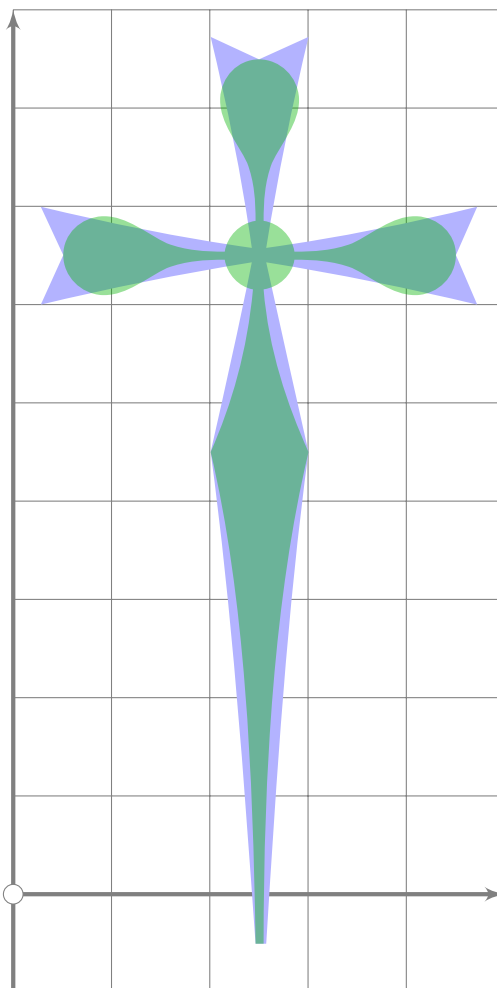
136 % high-rev-99
137 begint Suglyph("quotedblreversed";31);
138 punct.make_revcomma((520-tsu_punct_size,vmetric(0.94)),0);
139 punct.make_revcomma((520+tsu_punct_size,vmetric(0.94)),0);
140 tsu_render;
141 endtsuglyph;
142
143 % WARNING changing rescale setting
144 tsu_rescale_native_narrow;
145
146 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*(-74))..
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*(74))..
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

```



```

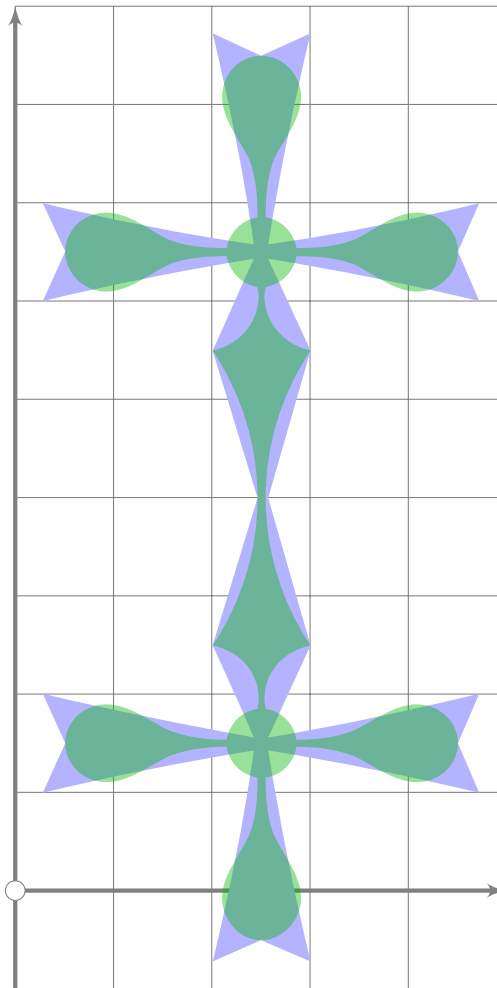
167 % dagger
168 begintsuglyph("dagger",32);
169 begingroup
170   save tsx;
171   transform tsx;
172
173   tsx:=tsu_slant_xform;
174
175   dangerousFill (dagger_spur rotated 90 shifted (250,650)
176     transformed tsx);
177   dangerousFill (dagger_spur shifted (250,650)

```

```

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 begintugslyph("Euro",172);
271     punct.euro;
272     tsu_render;
273 endtsuglyph;
274
275
276
277 endfont;

```

[see page 386]

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 

---

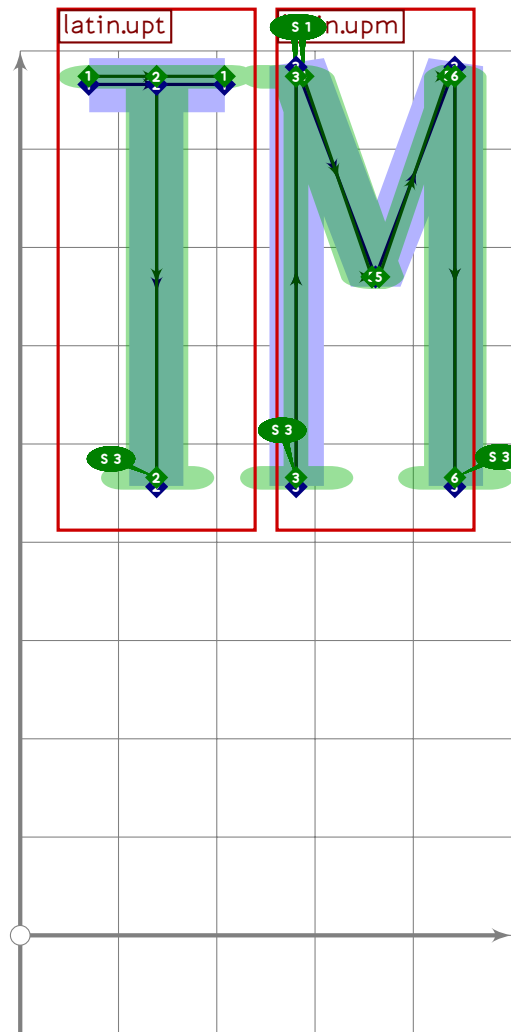

32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input latin.mp;
39 input punct.mp;
40
41 do_late_includes;
42
43 

---


44
```

## Symbols Required By Mes-1

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



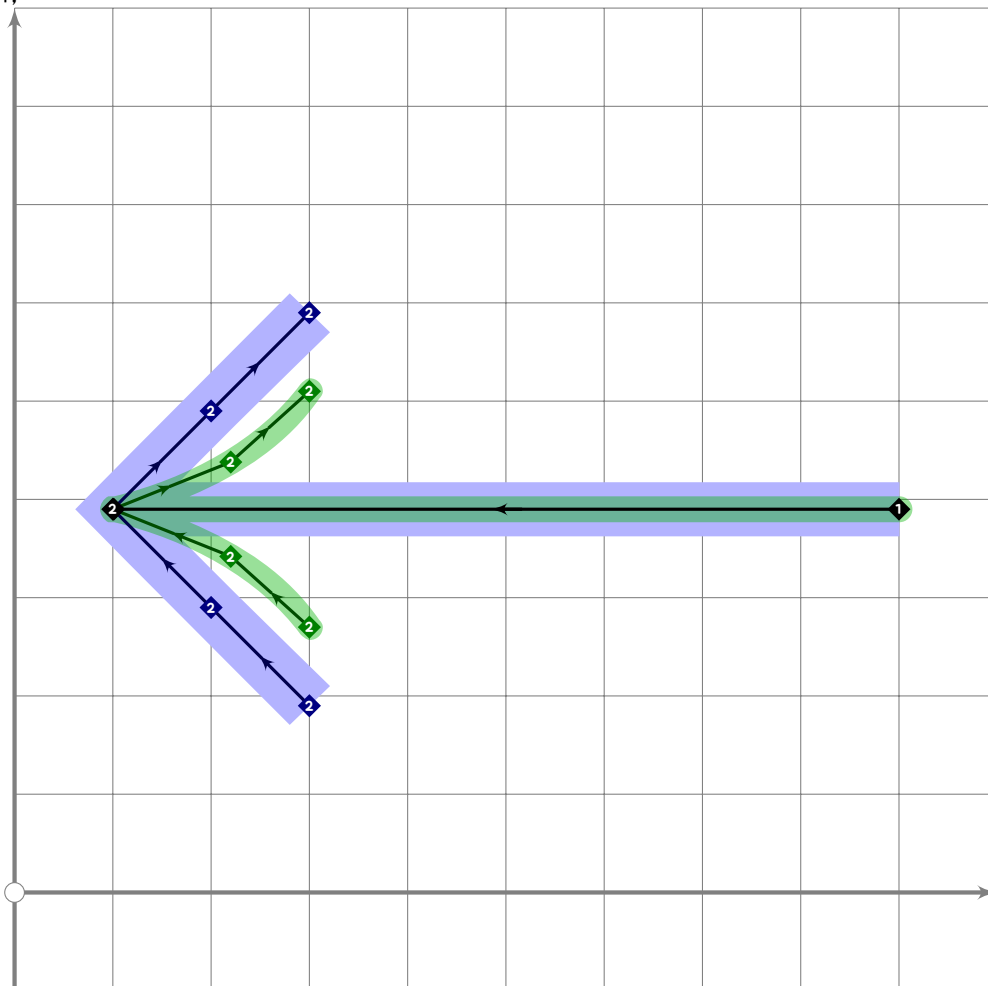
```

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 394]

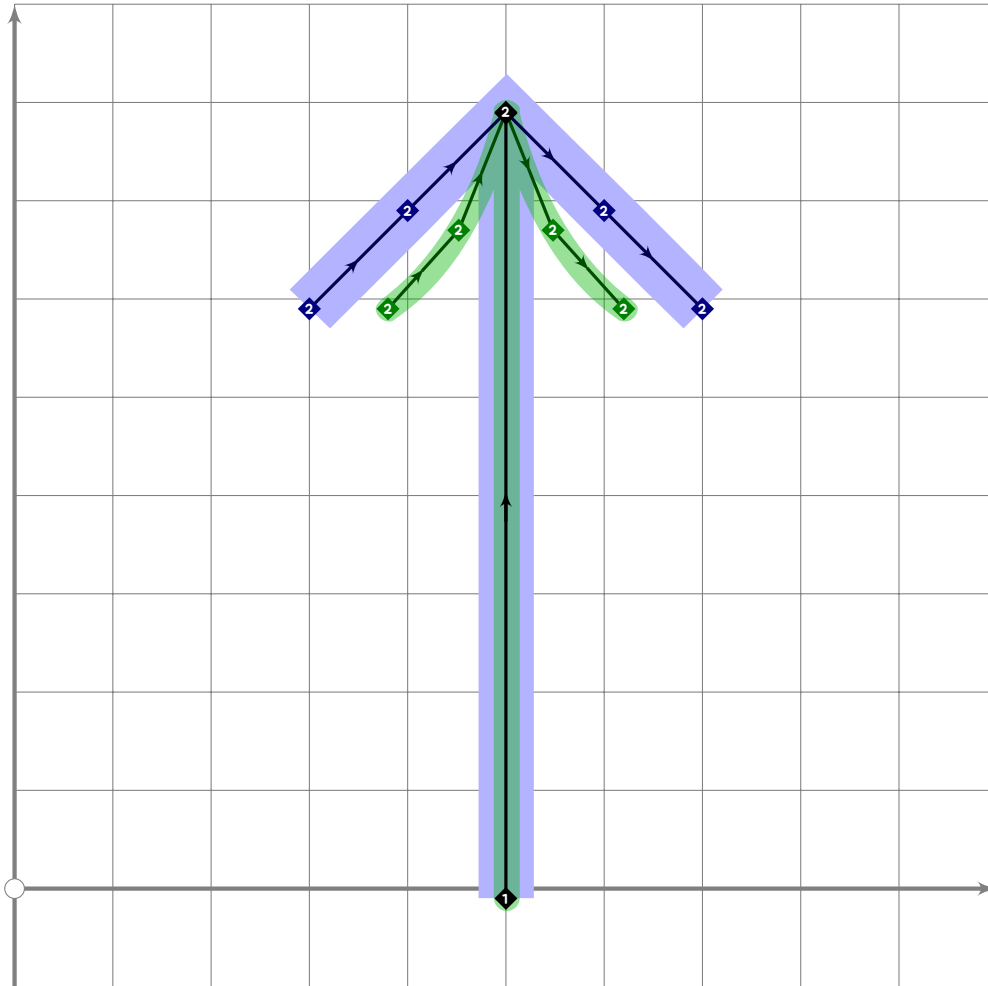




```

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

```



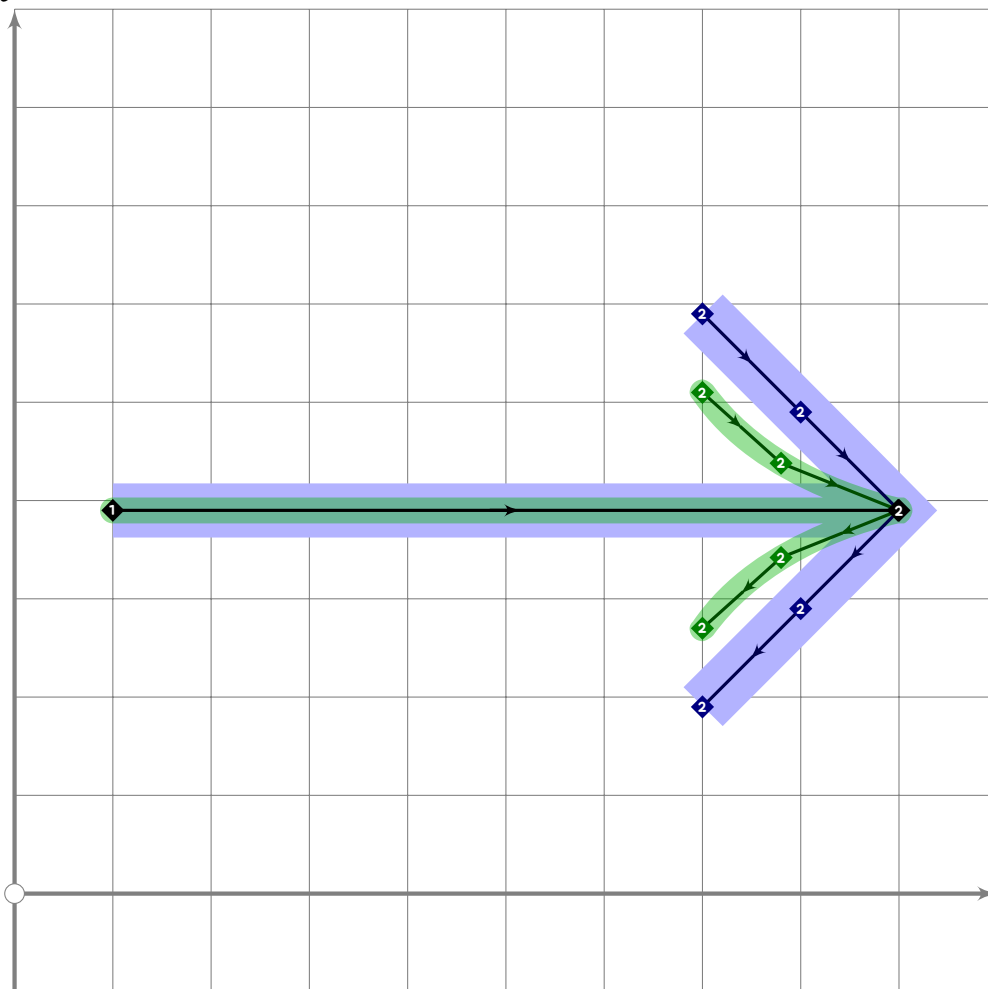
```

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

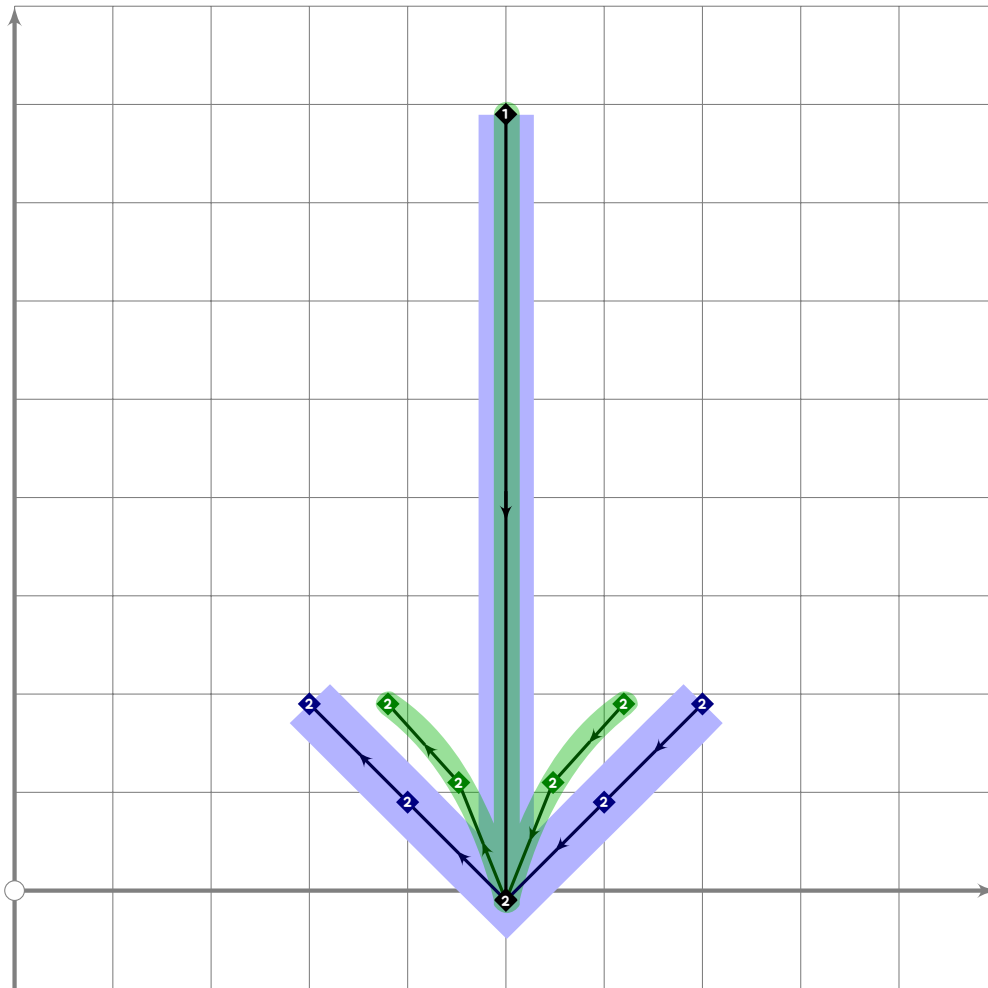
```

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 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---

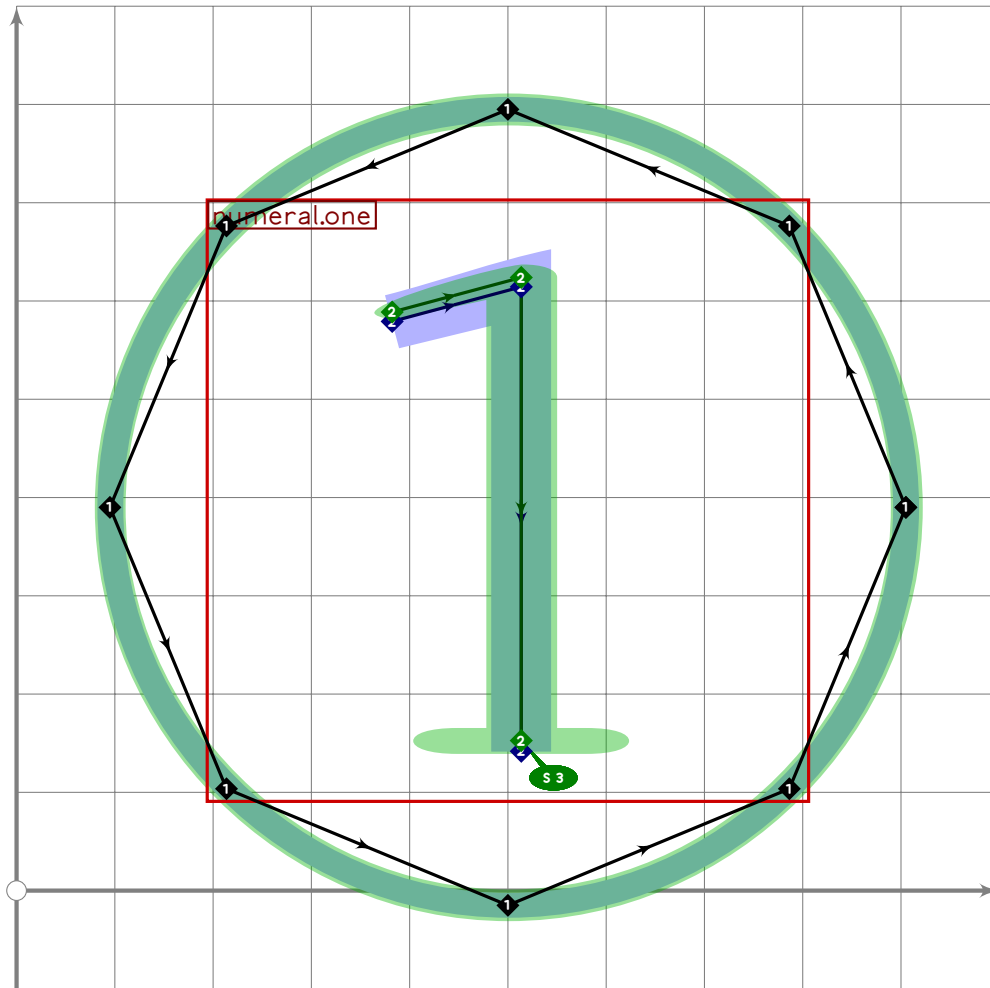

32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input enclosed.mp;
39 input latin.mp;
40 input numerals.mp;
41
42 do_late_includes;
43
44 

---


45
```

## Circled Numerals

```
46 % CIRCLED NUMERALS
47
```



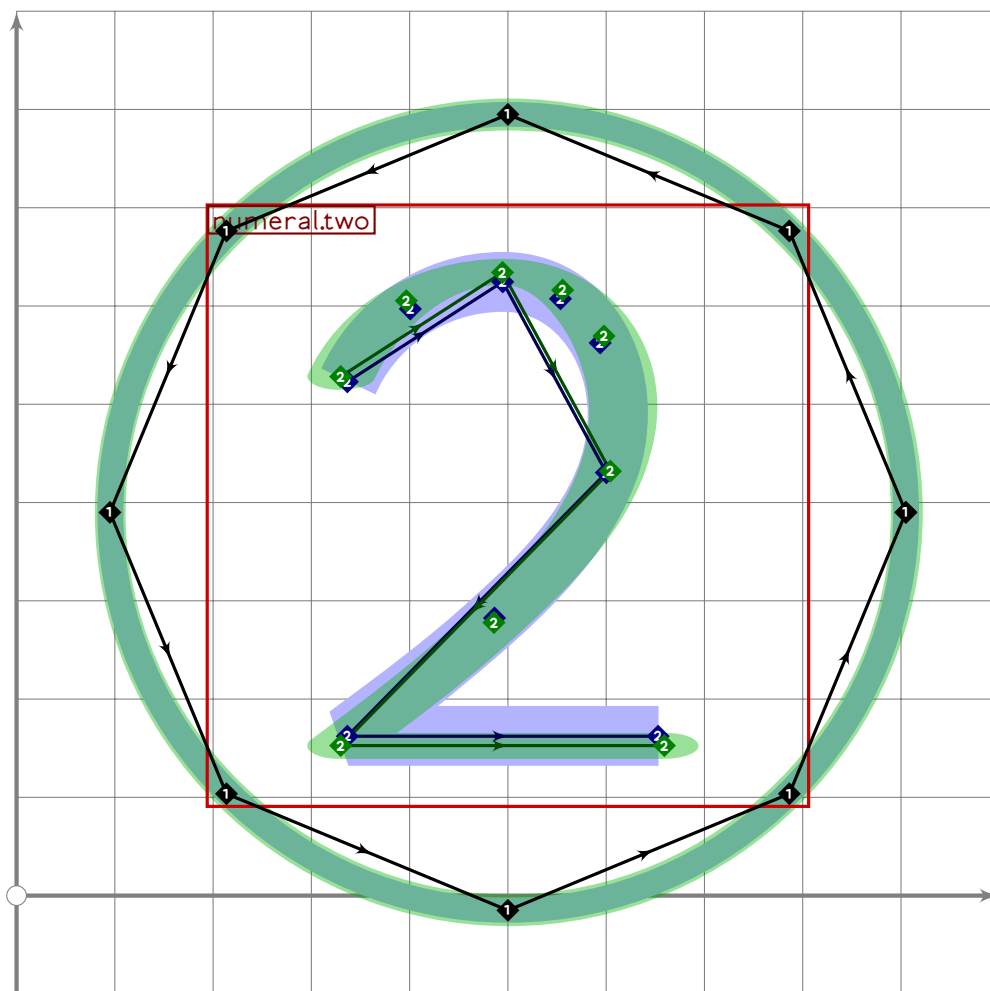
```

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

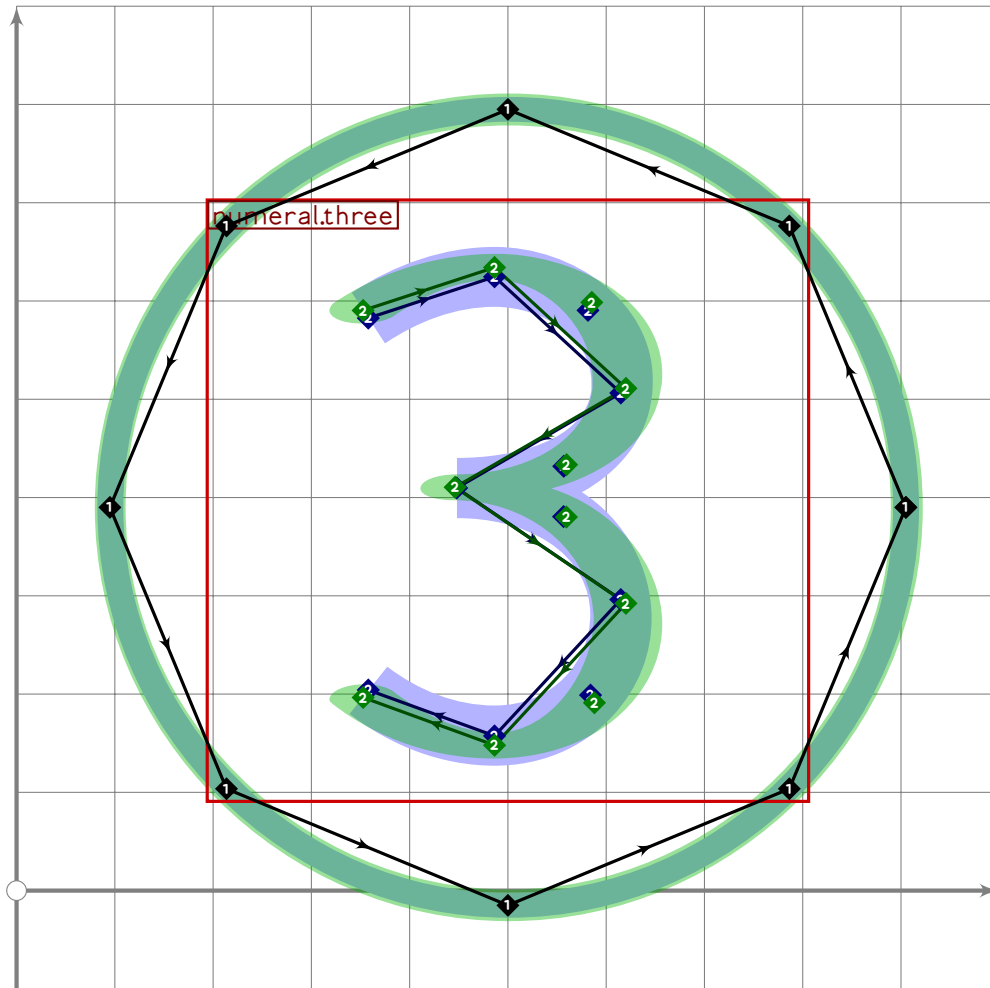
```

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
```



```

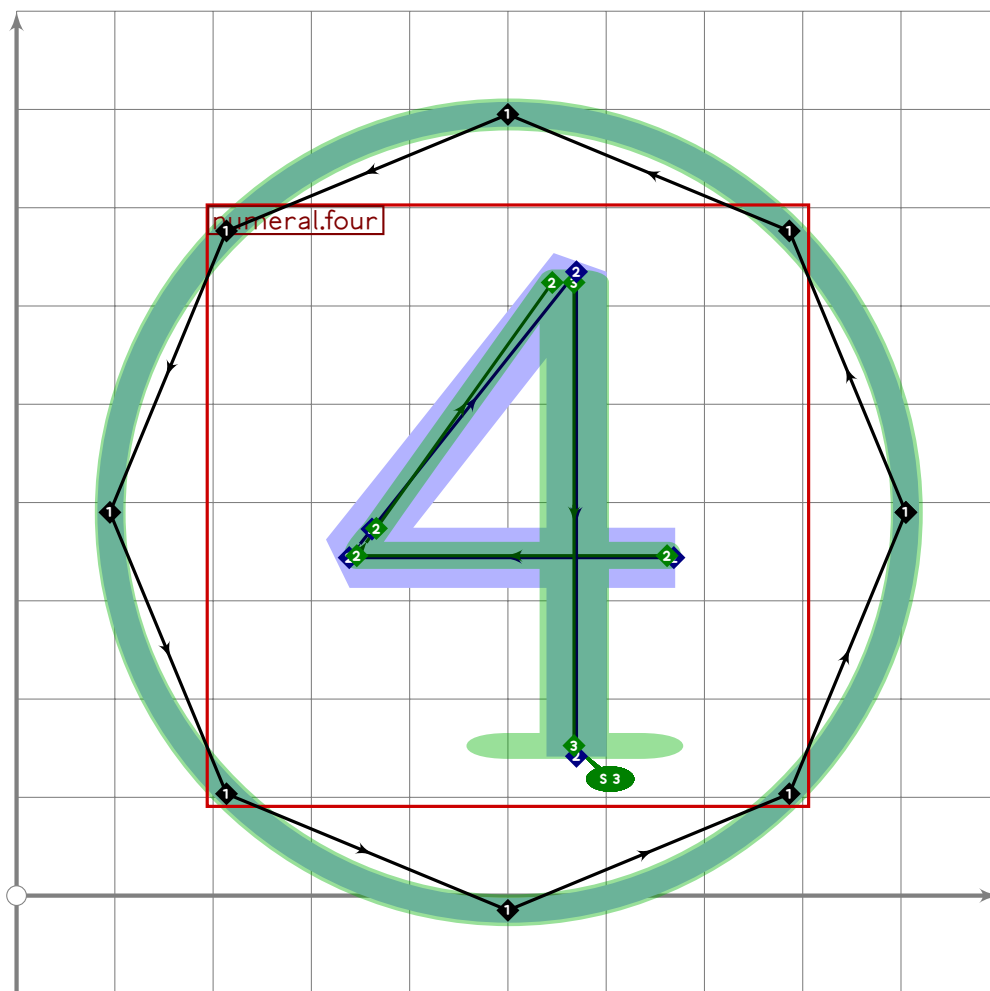
62 % 3
63 begintsuglyph("uni2462";98);
64   circle.single;
65   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.three);
66   tsu_render;
67 endtsuglyph;
68

```



U+2463  
tsuku.uni2463

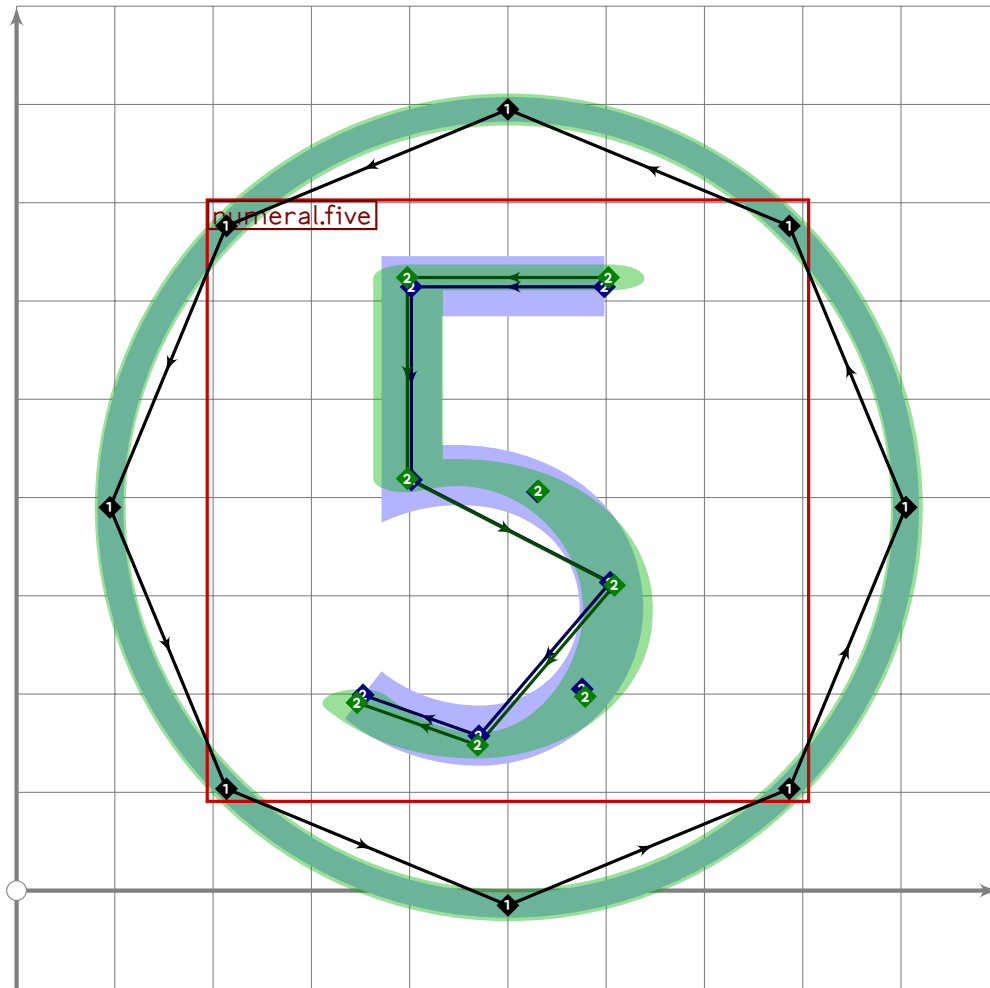
24



```

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

```



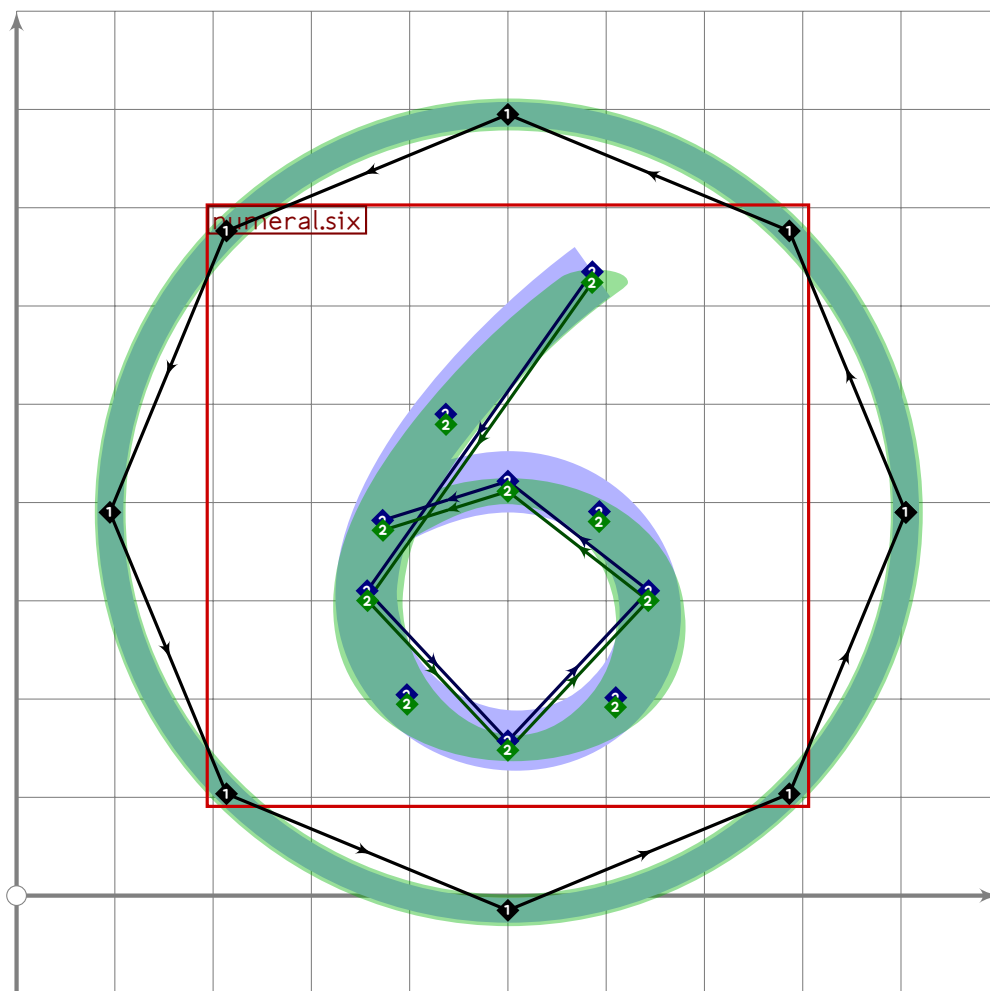
```

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

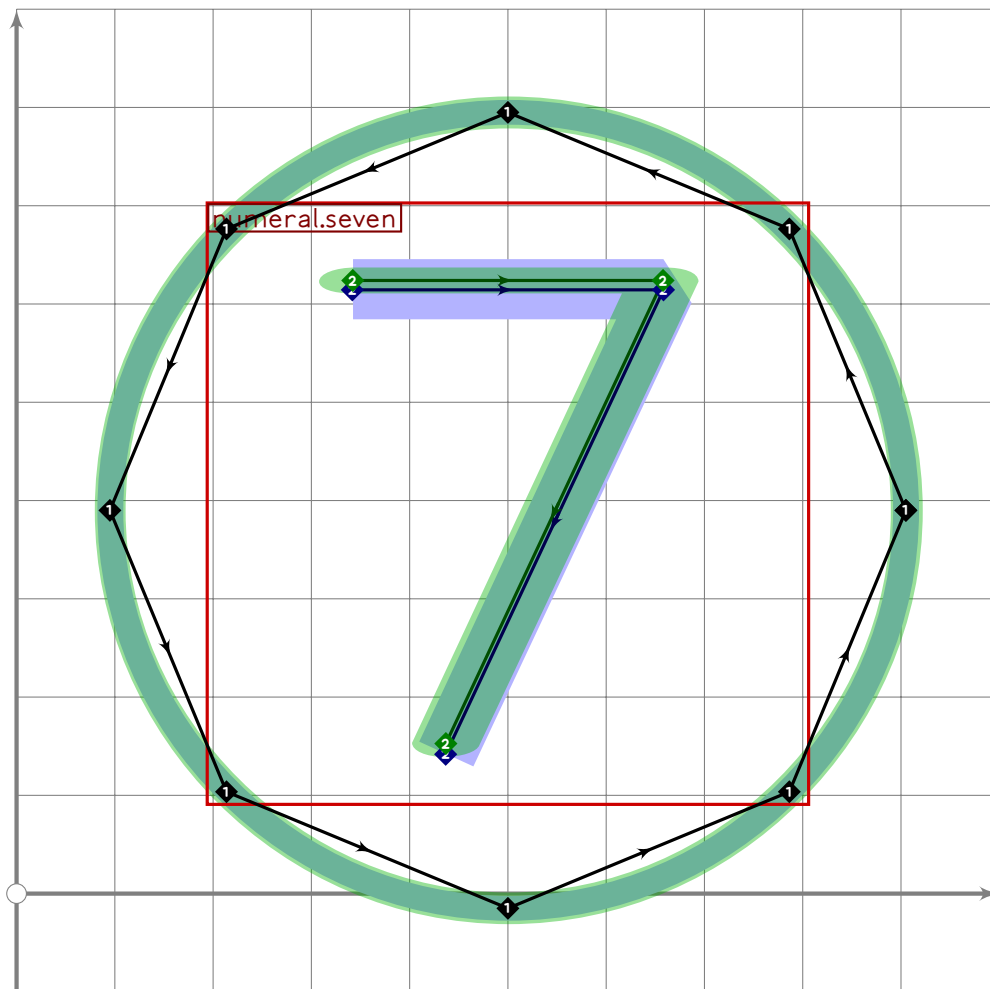
24



```

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

```



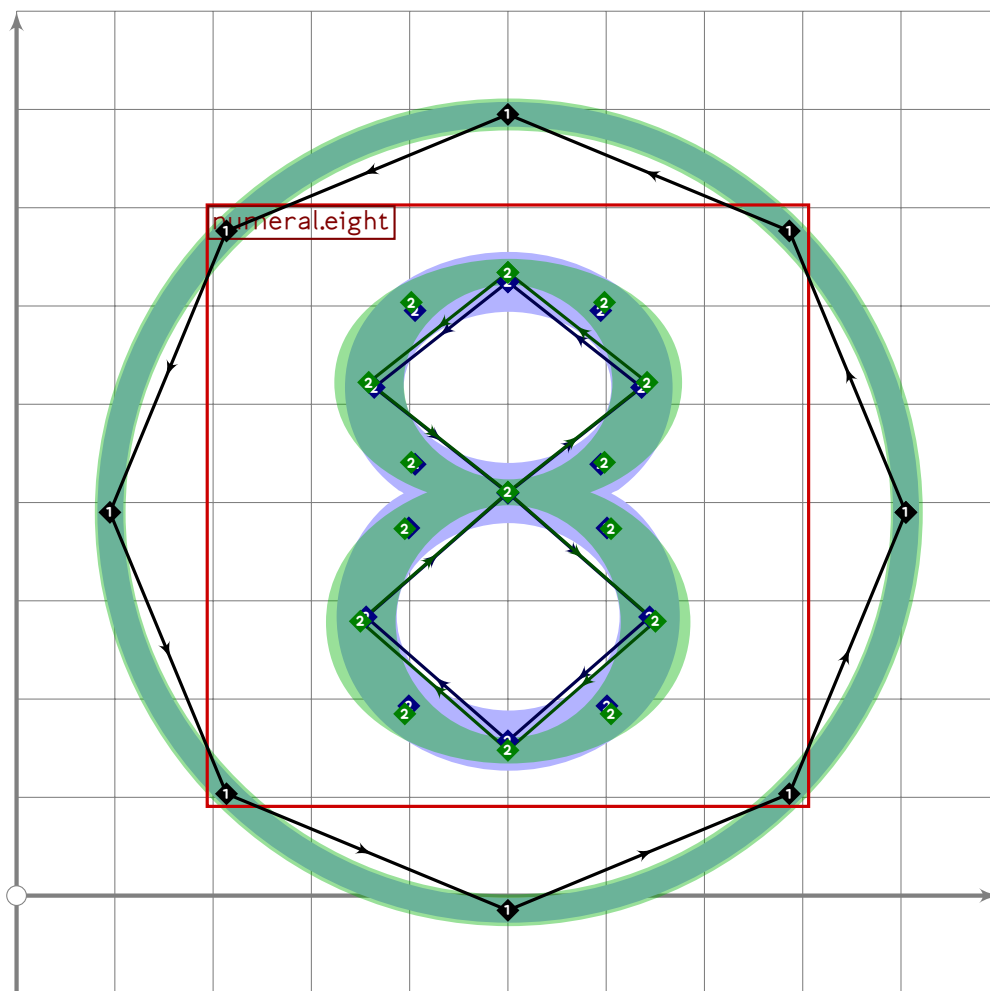
```

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

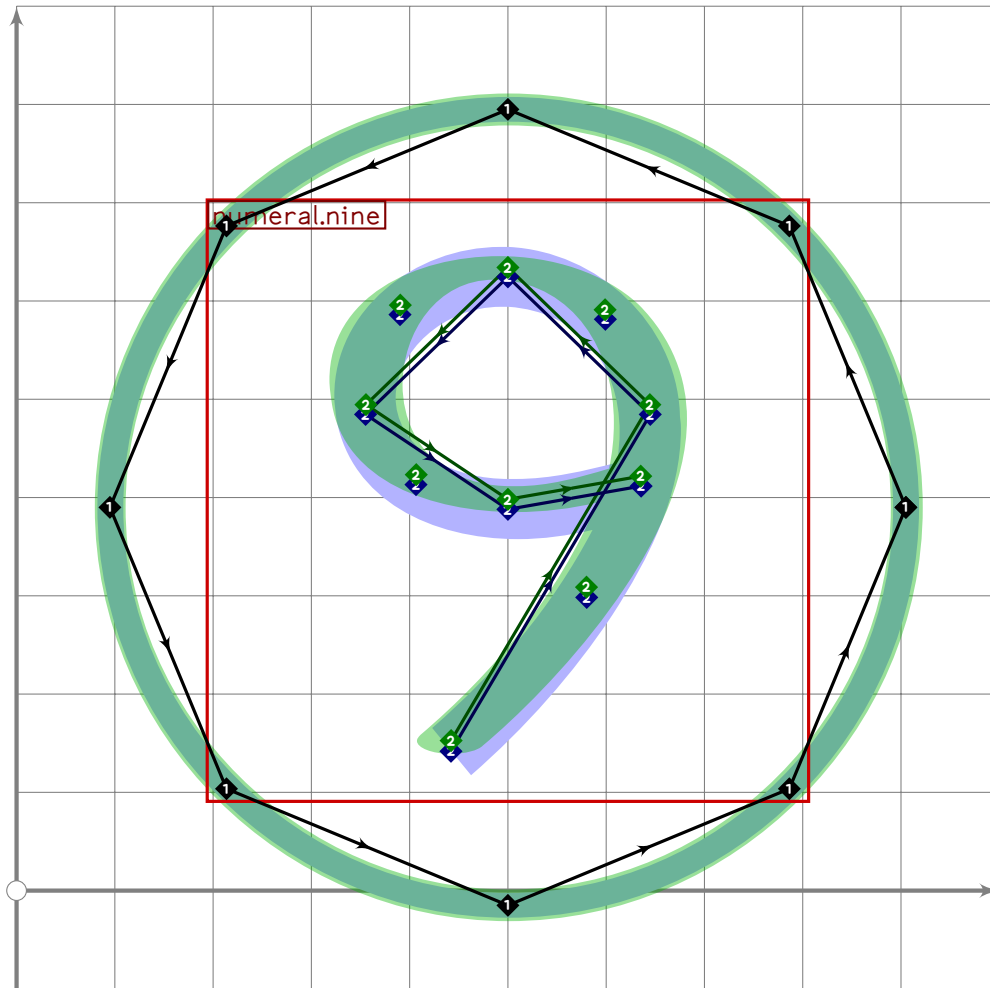
```

U+2467  
tsuku.uni2467

24



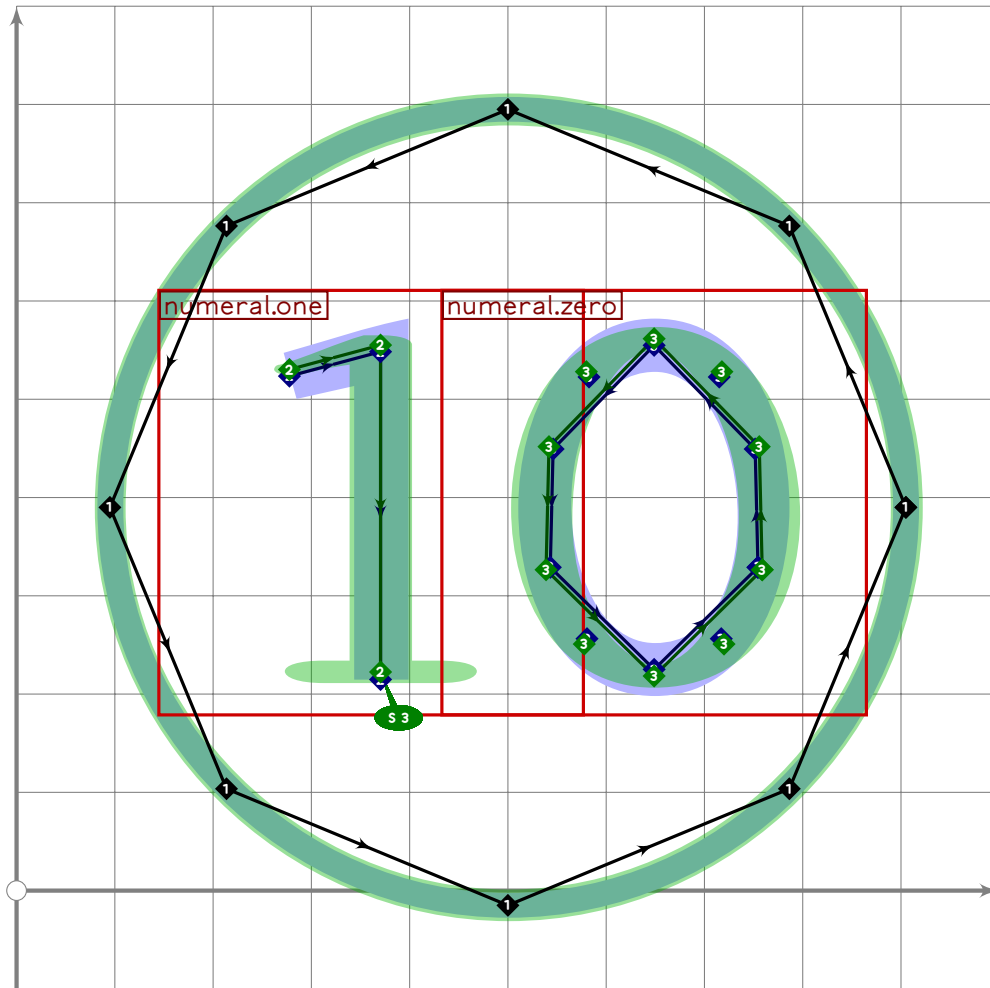
```
97 % 8
98 begint Suglyph("uni2467",103);
99   circle.single;
100   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.eight);
101   tsu_render;
102 endtsuglyph;
103
```



```

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

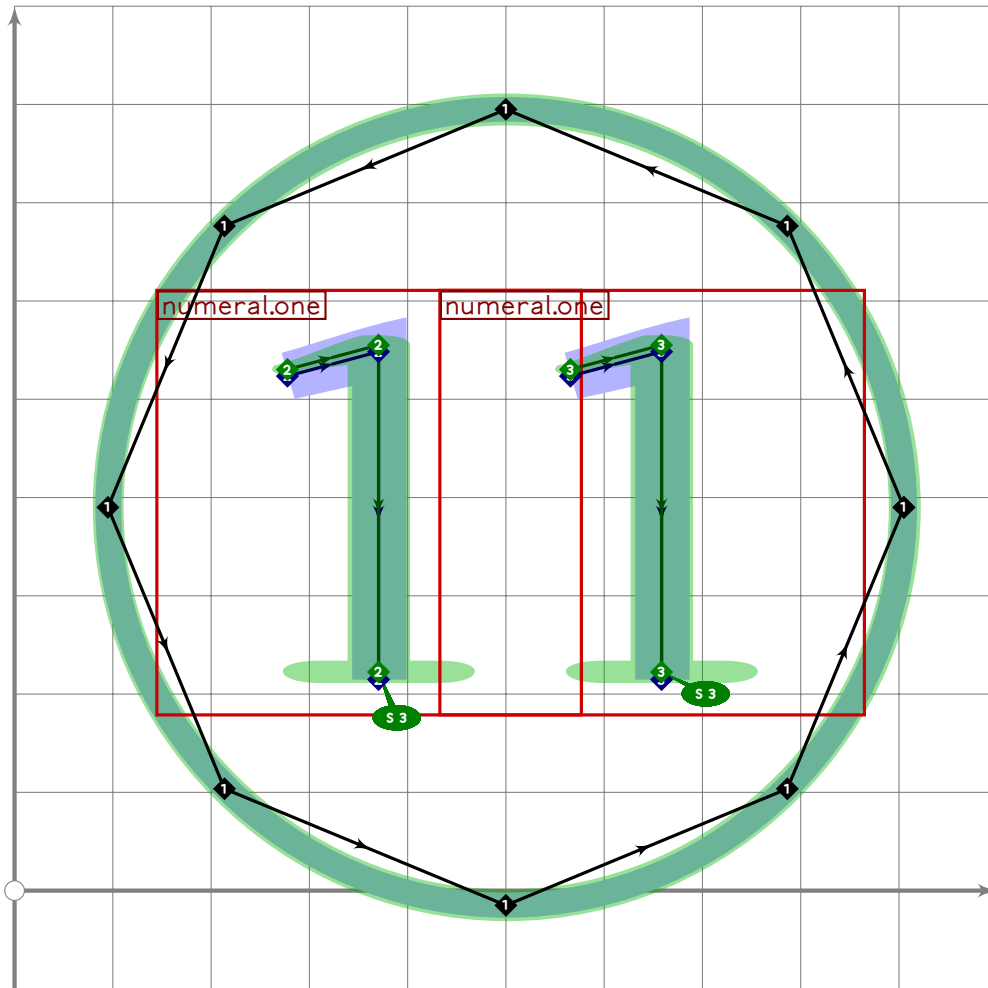
```



```

111 % 10
112 begintuglyph("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 endtuglyph;
119

```

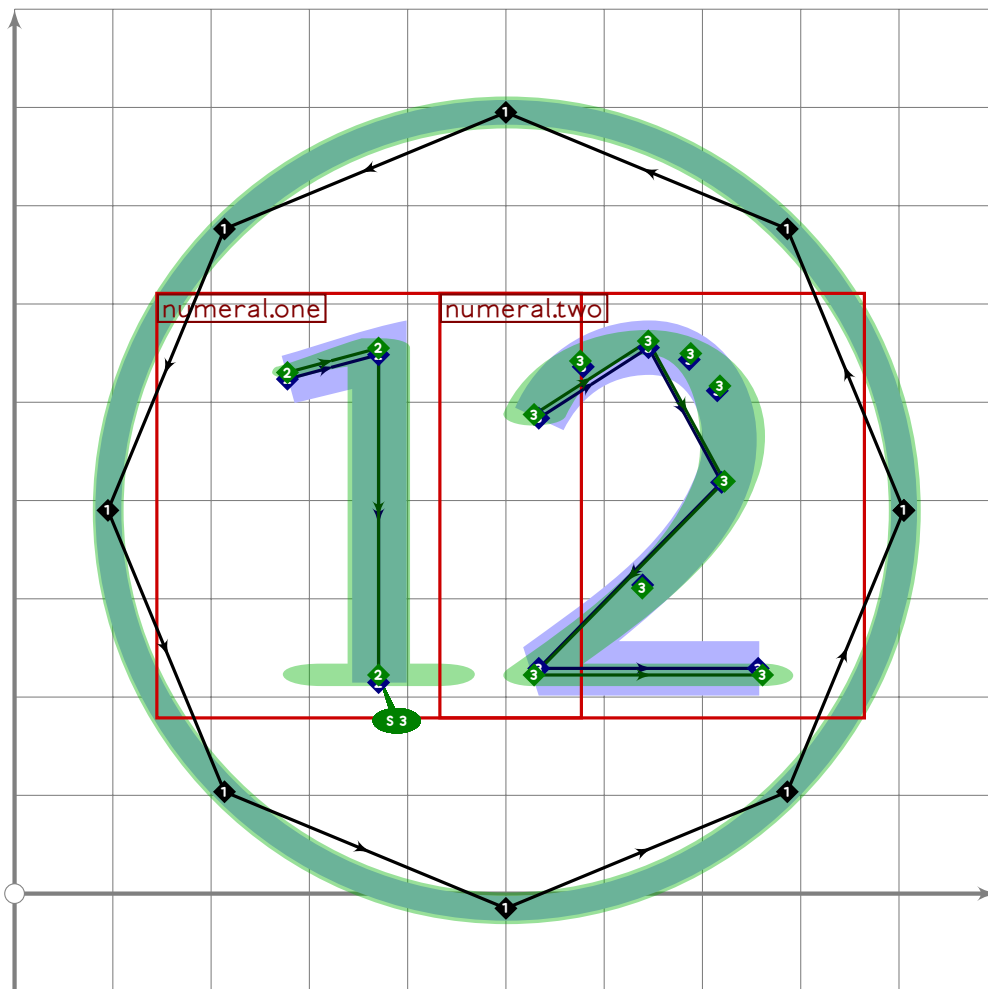


```

120 % 11
121 beginsuglyph("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 endsuglyph;
128

```

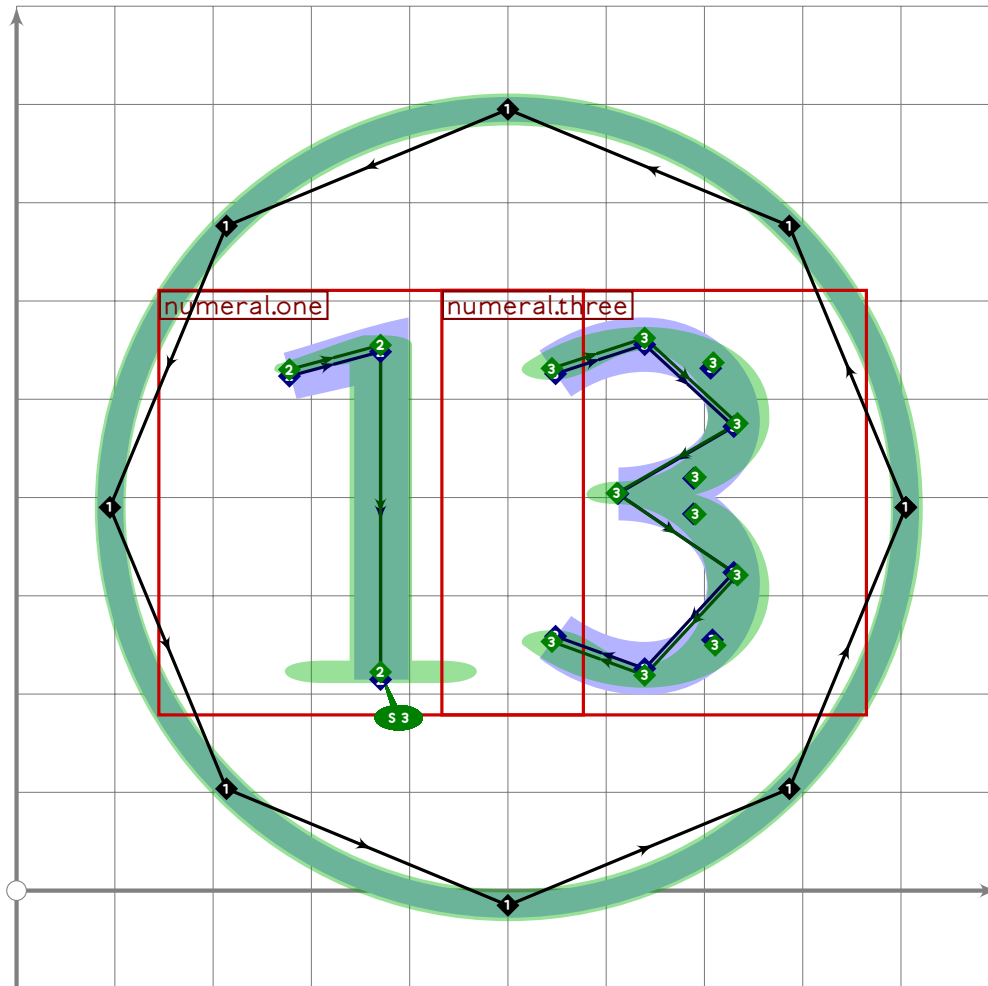




```

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

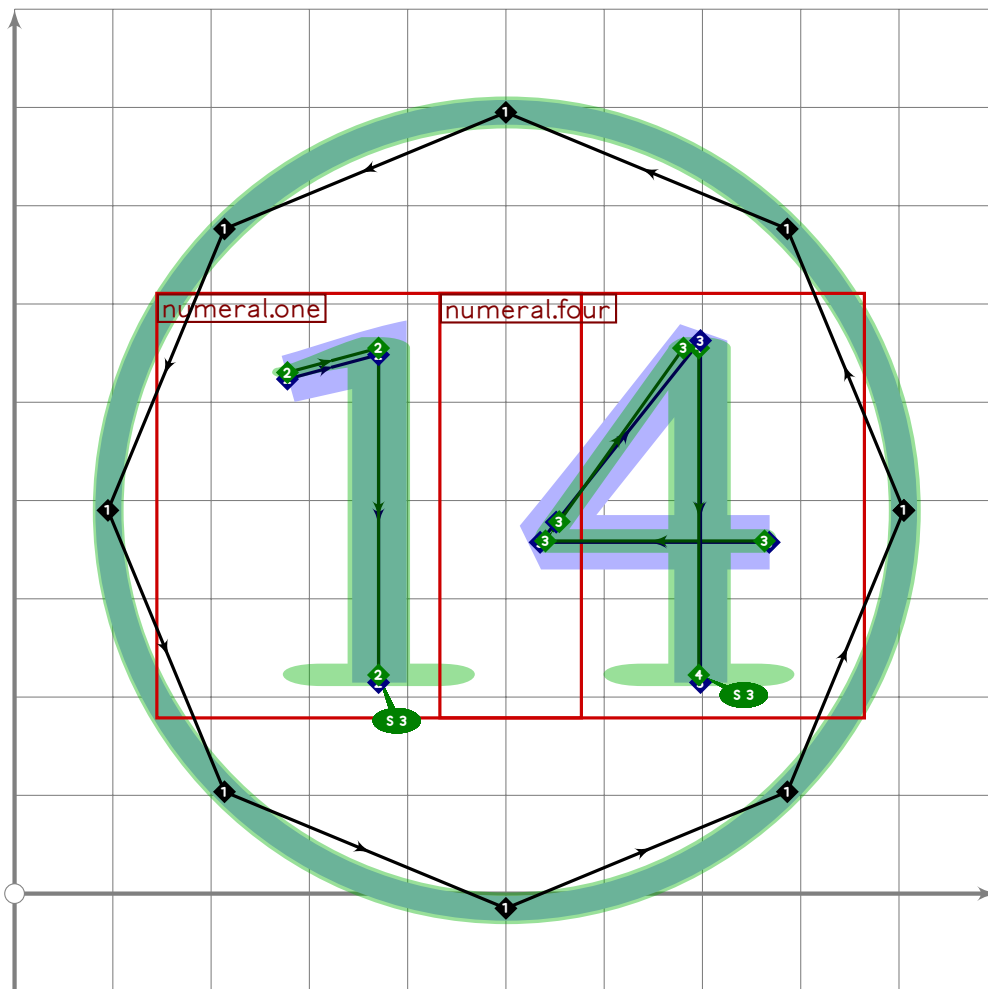
```



```

138 % 13
139 beginsuglyph("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)(numeral.three);
144 tsu_render;
145 endtsuglyph;
146

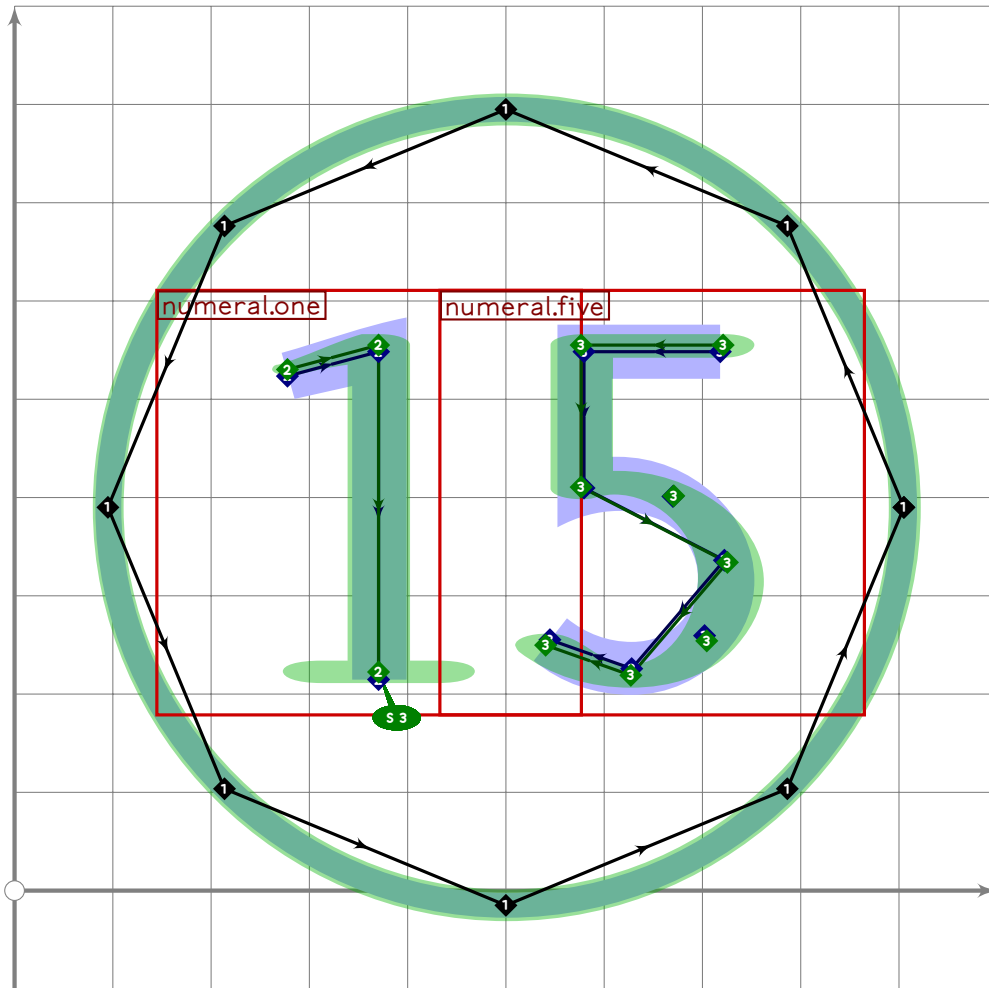
```



```

147 % 14
148 begintsuglyph("uni246D",109);
149 circle.single;
150 tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
151 numeric x[],y[];
152 tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.four);
153 tsu_render;
154 endtsuglyph;
155

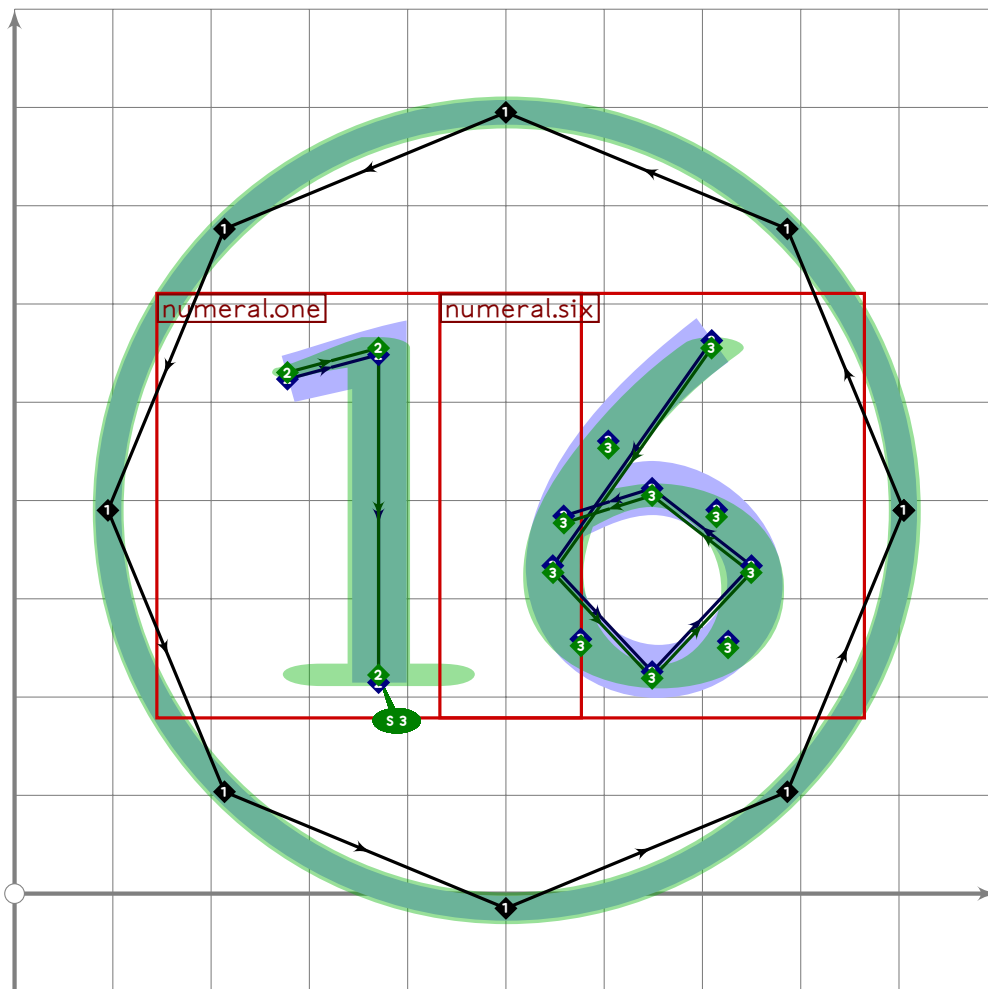
```



```

156 % 15
157 beginsuglyph("uni246E",110);
158   circle.single;
159   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
160   numeric x[],y[];
161   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.five);
162   tsu_render;
163 endtsuglyph;
164

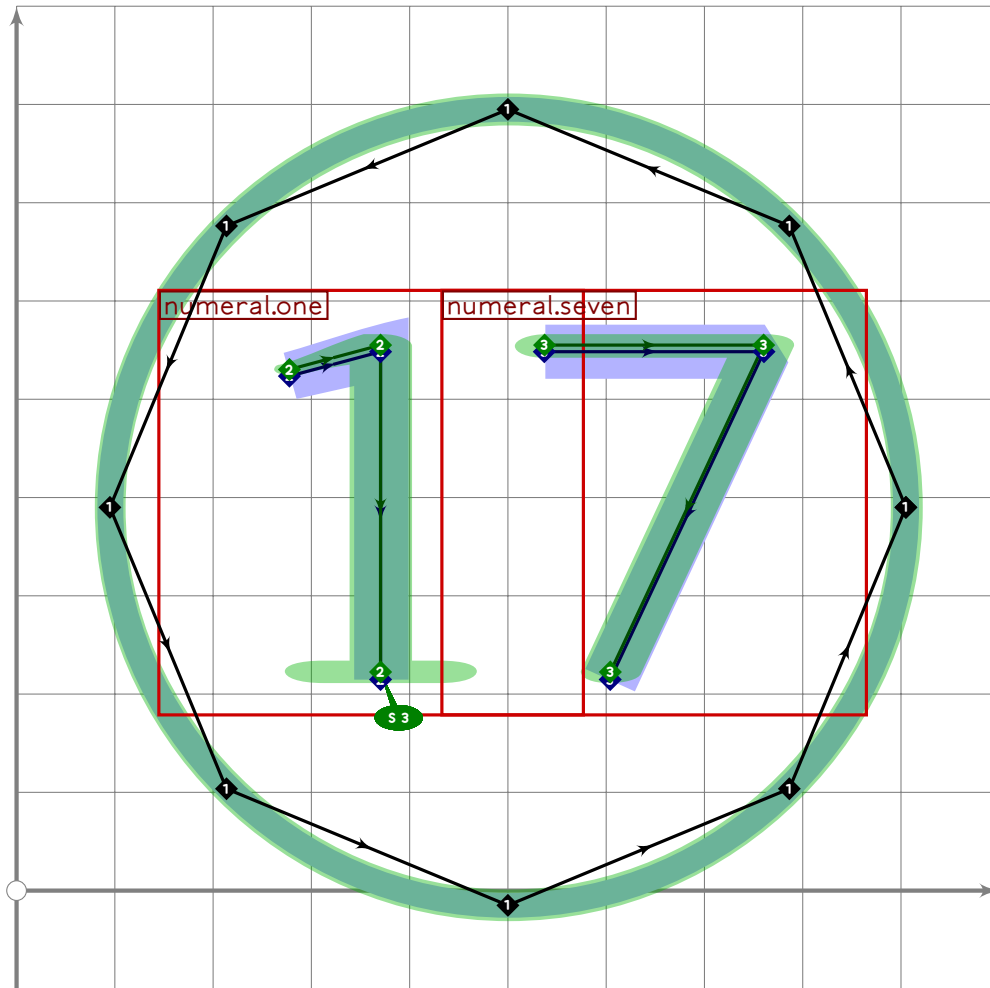
```



```

165 % 16
166 beginsuglyph("uni246F",111);
167 circle.single;
168 tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
169 numeric x[],y[];
170 tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.six);
171 tsu_render;
172 endsuglyph;
173

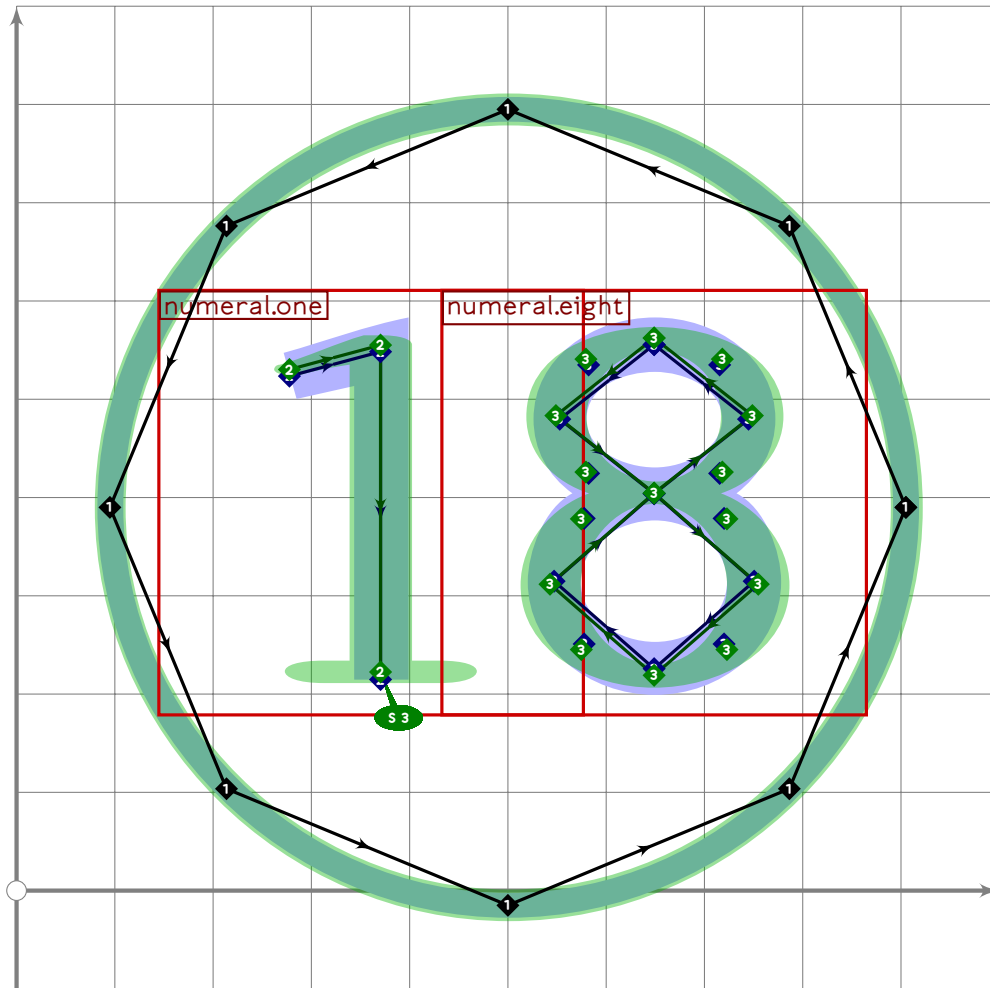
```



```

174 % 17
175 beginsuglyph("uni2470",112);
176   circle.single;
177   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
178   numeric x[],y[];
179   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.seven);
180   tsu_render;
181 endsuglyph;
182

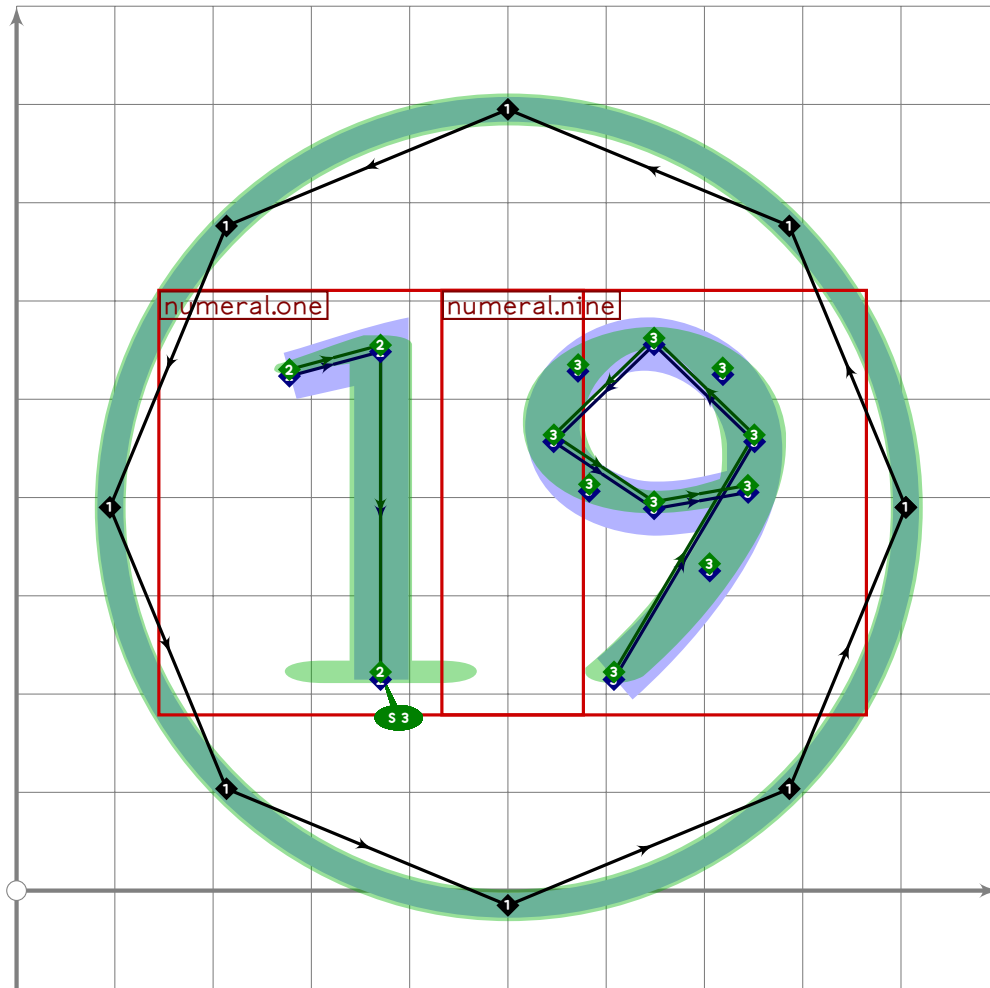
```



```

183 % 18
184 beginsuglyph("uni2471";113);
185   circle.single;
186   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
187   numeric x[],y[];
188   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.eight);
189   tsu_render;
190 endtsuglyph;
191

```

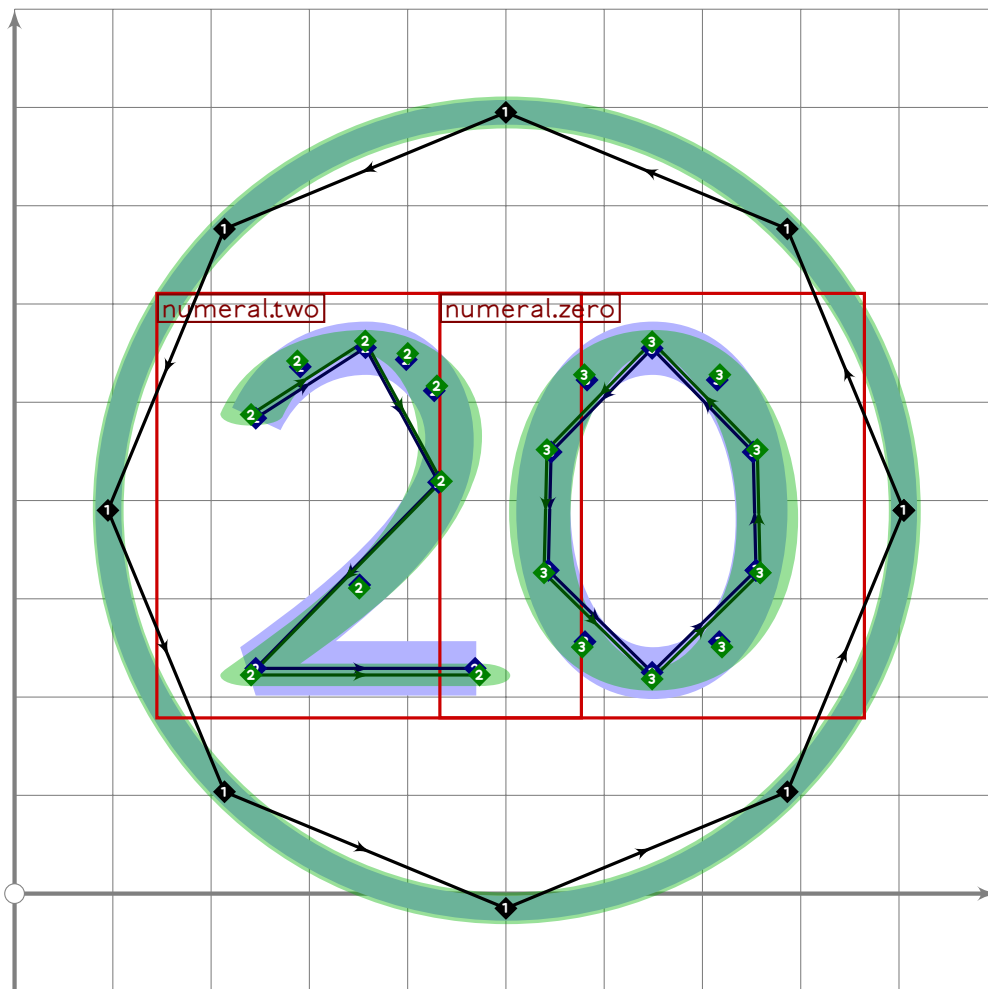


```

192 % 19
193 beginsuglyph("uni2472",114);
194   circle.single;
195   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
196   numeric x[],y[];
197   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.nine);
198   tsu_render;
199 endtsuglyph;
200

```





```

201 % 20
202 beginsuglyph("uni2473",115);
203   circle.single;
204   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.two);
205   numeric x[],y[];
206   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
207   tsu_render;
208 endtsuglyph;
209
210
211

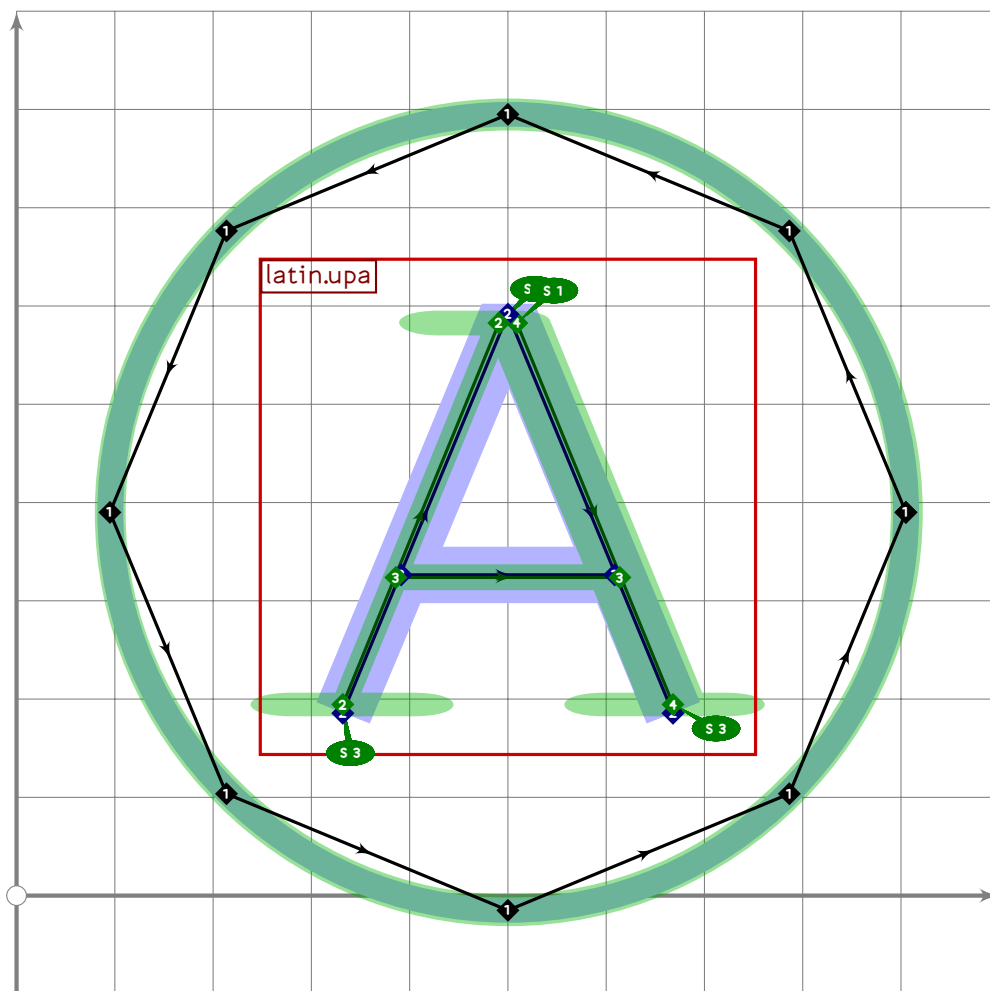
```

## Circled Latin And Zero

```

212 % CIRCLED LATIN AND ZERO
213

```



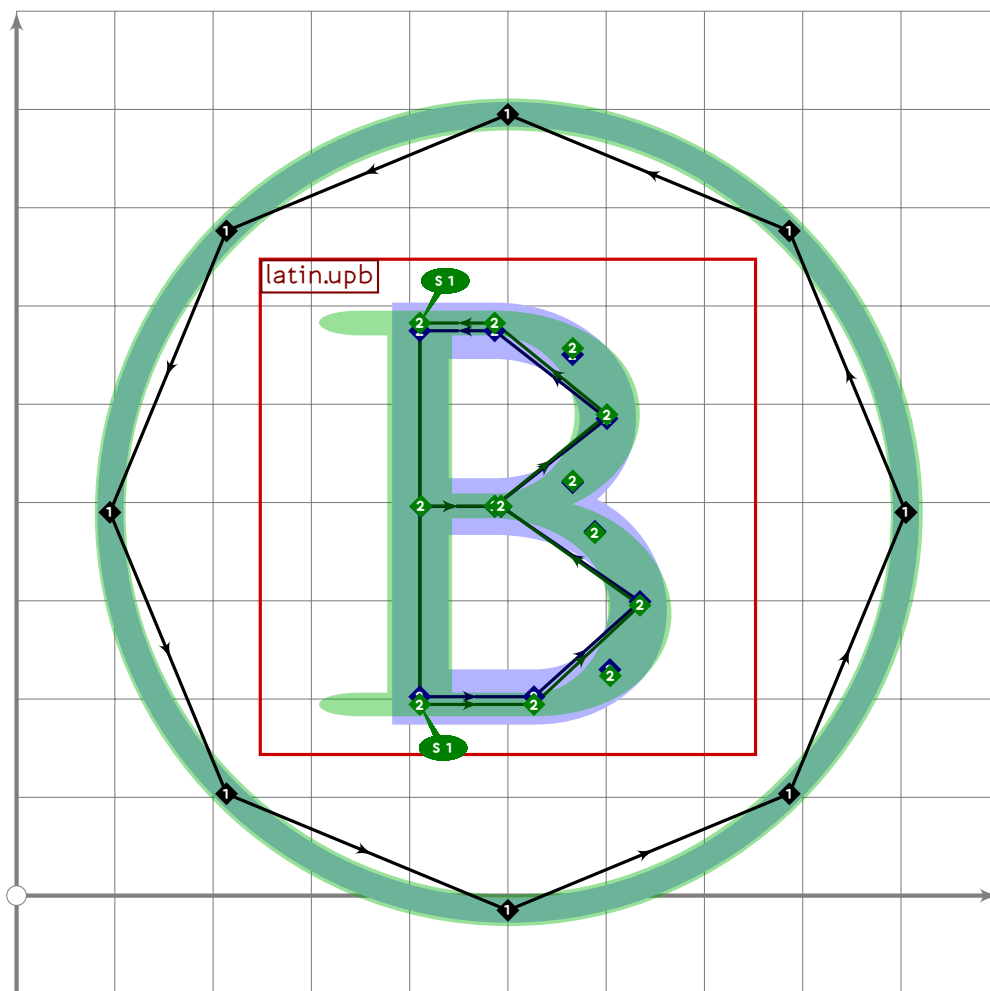
```

214 % A
215 begint Suglyph("uni24B6";182);
216   circle.single;
217   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upa);
218   tsu_render;
219 endtsuglyph;
220

```

U+24B7  
tsuku.uni24B7

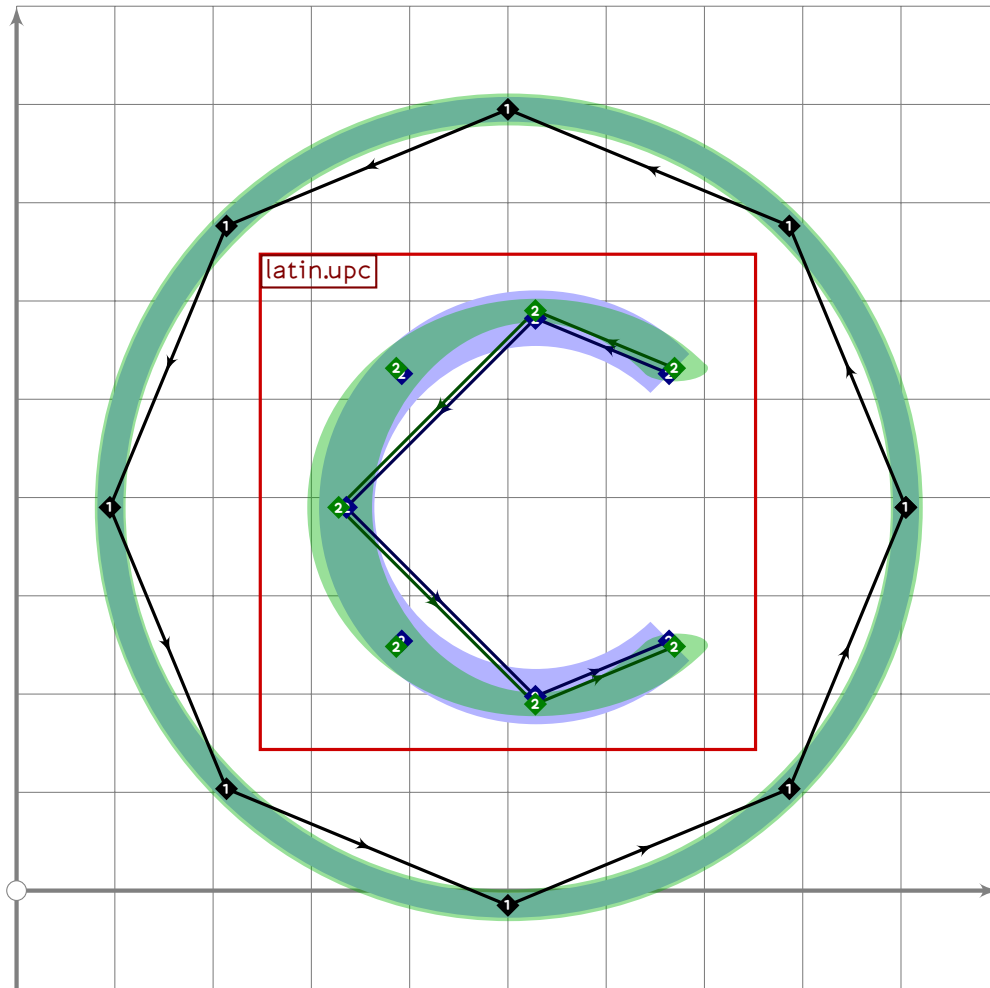
24



```

221 % B
222 begintsuglyph("uni24B7";183);
223   circle.single;
224   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upb);
225   tsu_render;
226 endtsuglyph;
227

```



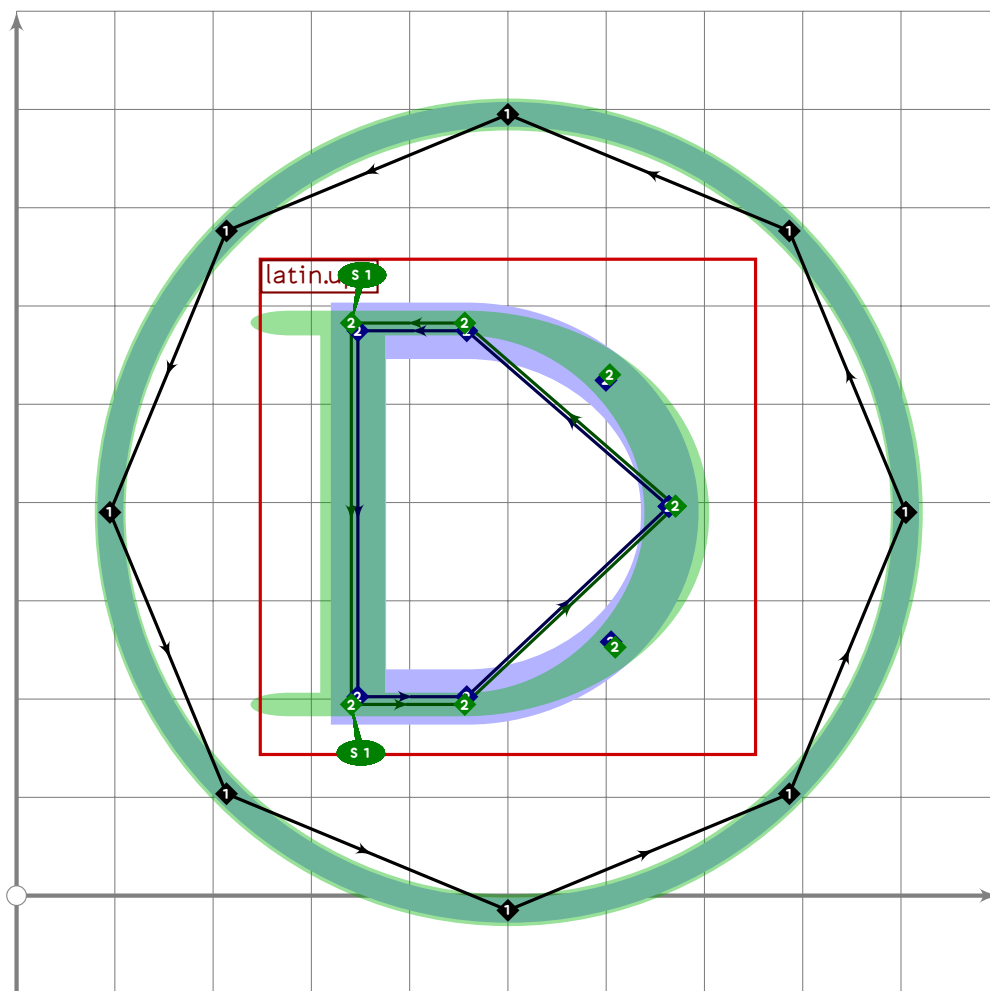
```

228 % C
229 begint Suglyph("uni24B8",184);
230   circle.single;
231   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upc);
232   tsu_render;
233 endtsuglyph;
234

```

U+24B9  
tsuku.uni24B9

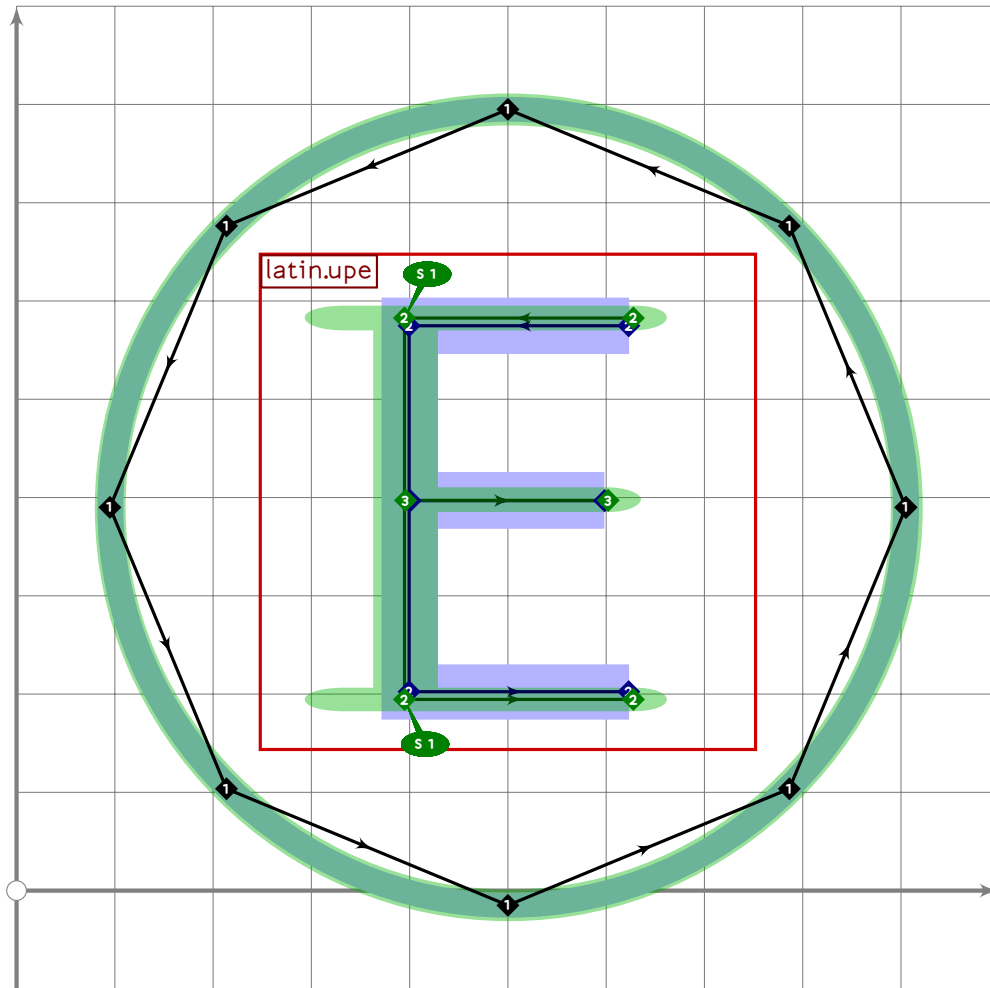
24



```

235 % D
236 begintsuglyph("uni24B9",185);
237   circle.single;
238   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upd);
239   tsu_render;
240 endtsuglyph;
241

```



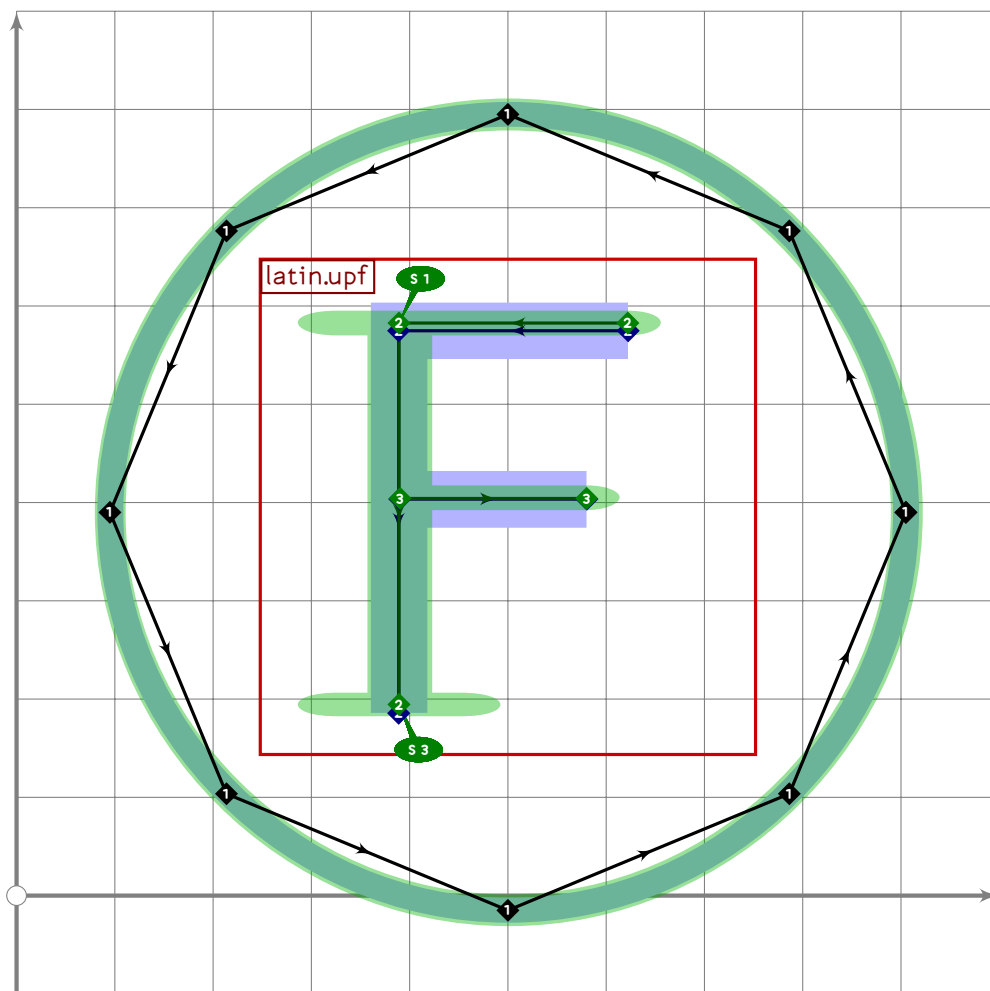
```

242 % E
243 begint Suglyph("uni24BA",186);
244   circle.single;
245   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upe);
246   tsu_render;
247 endtsuglyph;
248

```

U+24BB  
tsuku.uni24BB

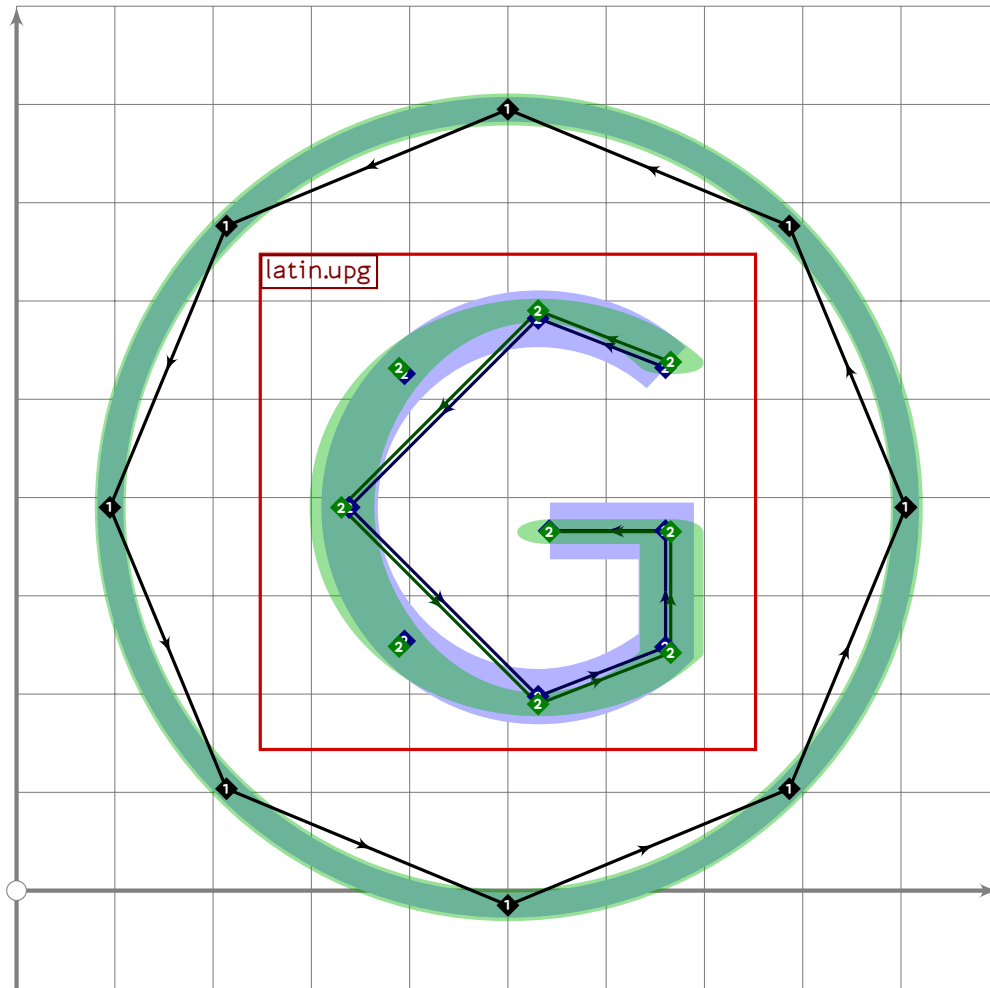
24



```

249 % F
250 begintsuglyph("uni24BB",187);
251   circle.single;
252   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upf);
253   tsu_render;
254 endtsuglyph;
255

```



```

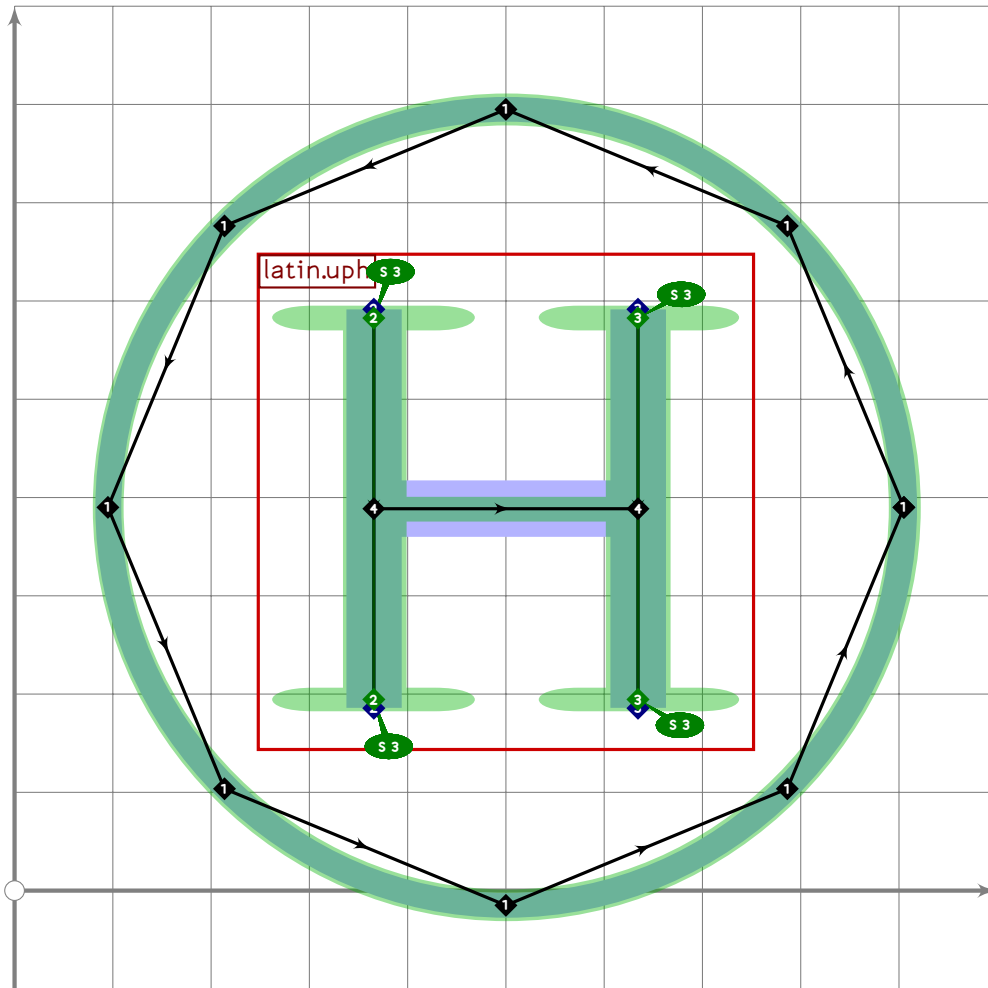
256 % G
257 beginsuglyph("uni24BC",188);
258   circle.single;
259   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upg);
260   tsu_render;
261 endtsuglyph;
262

```



U+24BD  
tsuku.uni24BD

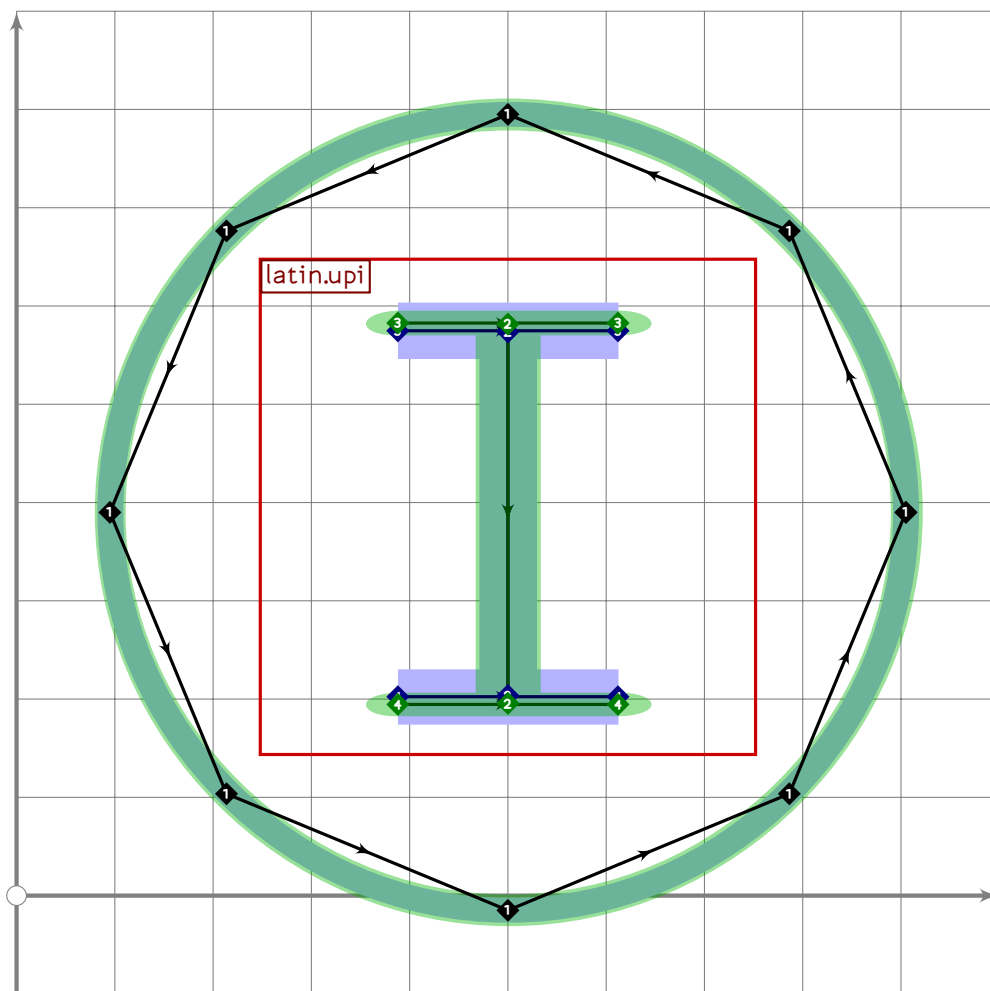
24



```

263 % H
264 begintsuglyph("uni24BD";189);
265   circle.single;
266   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.uph);
267   tsu_render;
268 endtsuglyph;
269

```



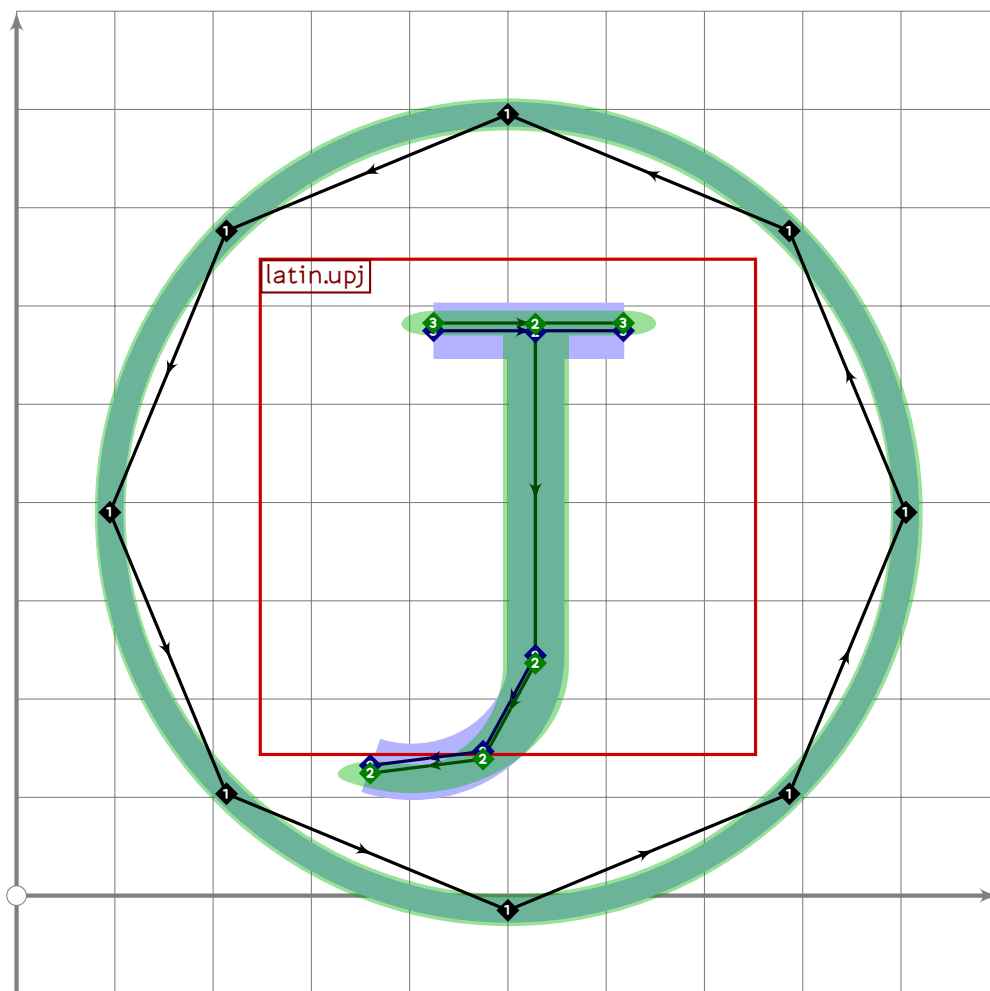
```

270 % I
271 begintsuglyph("uni24BE",190);
272   circle.single;
273   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upi);
274   tsu_render;
275 endtsuglyph;
276

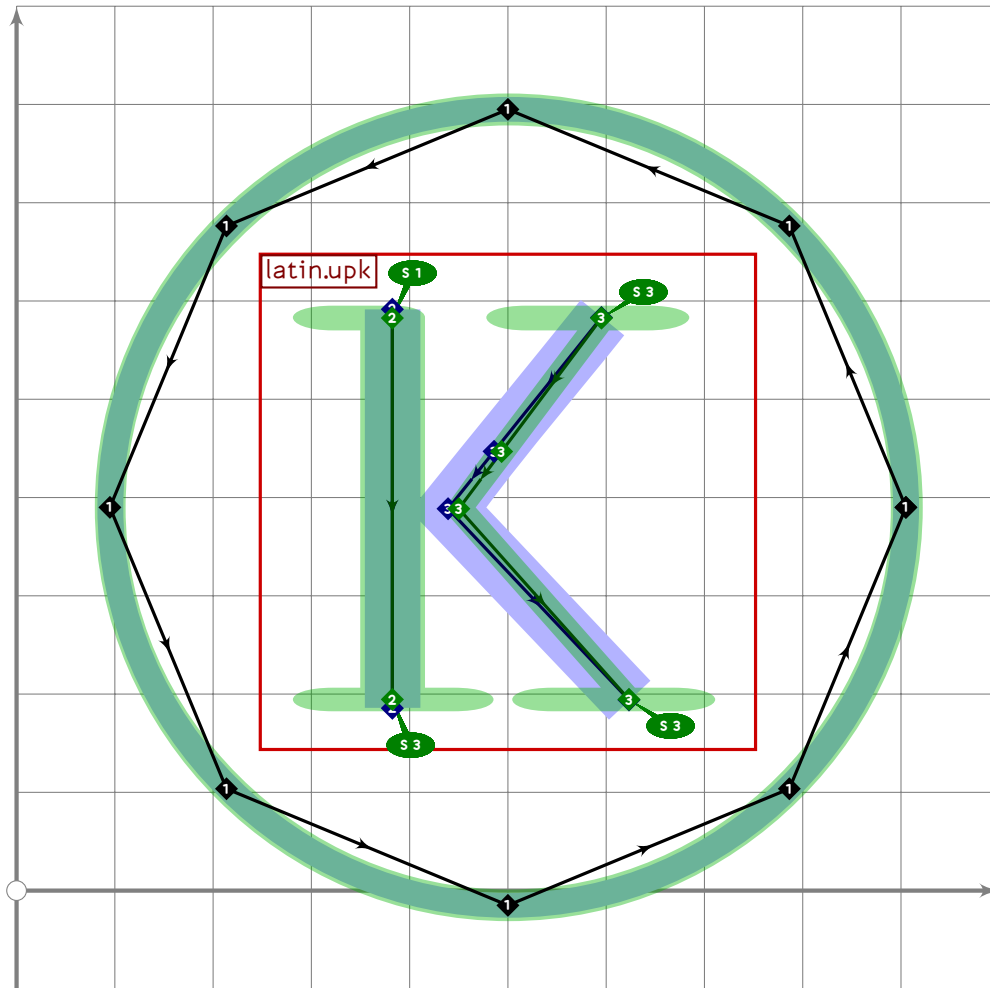
```

U+24BF  
tsuku.uni24BF

24



```
277 % J
278 begintsuglyph("uni24BF",191);
279   circle.single;
280   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upj);
281   tsu_render;
282 endtsuglyph;
283
```



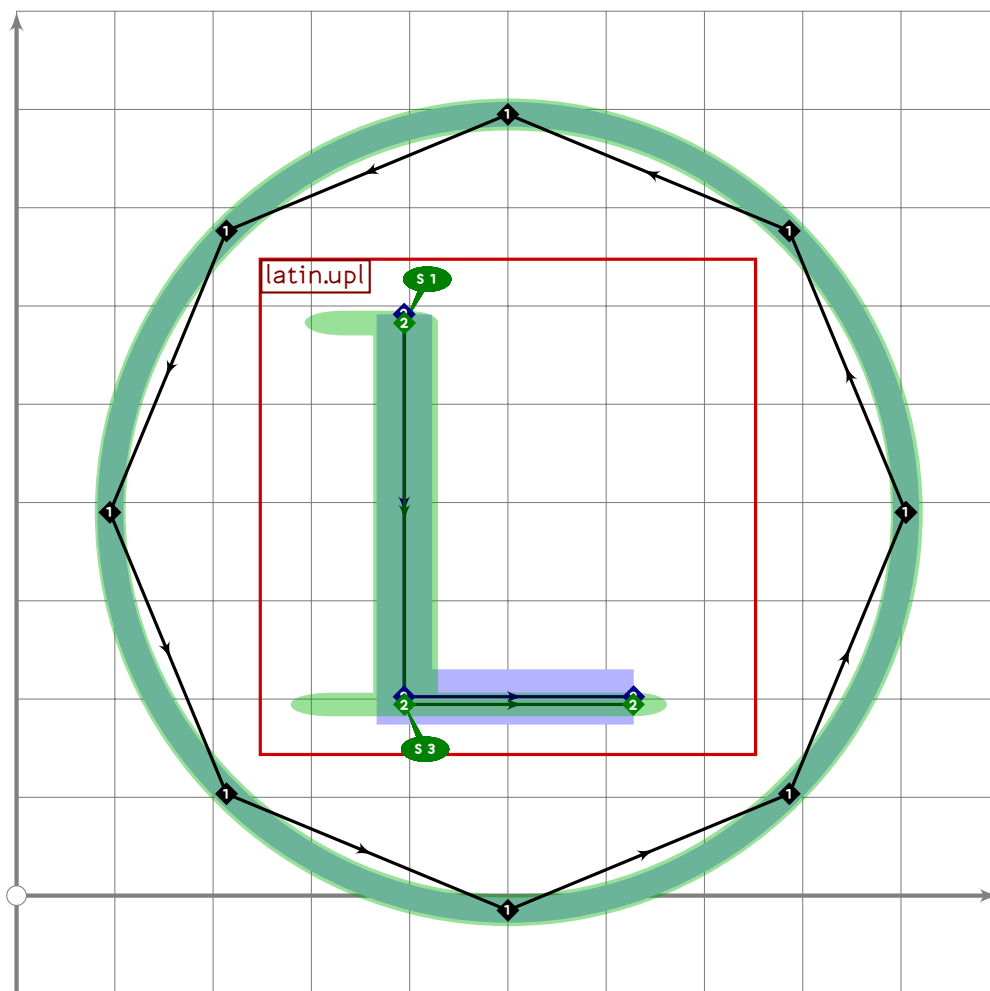
```

284 % K
285 begintsuglyph("uni24C0";192);
286   circle.single;
287   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upk);
288   tsu_render;
289 endtsuglyph;
290

```

U+24C1  
tsuku.uni24C1

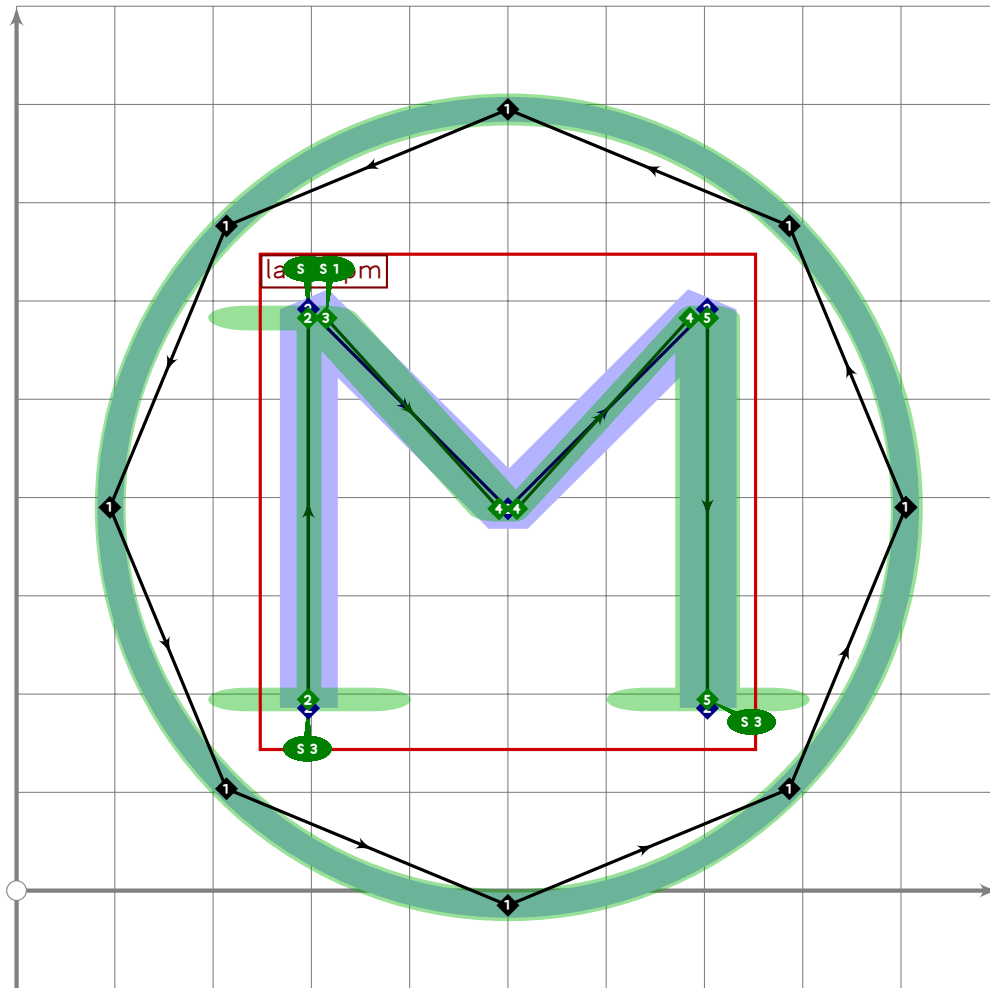
24



```

291 % L
292 begintsuglyph("uni24C1";193);
293   circle.single;
294   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upl);
295   tsu_render;
296 endtsuglyph;
297

```



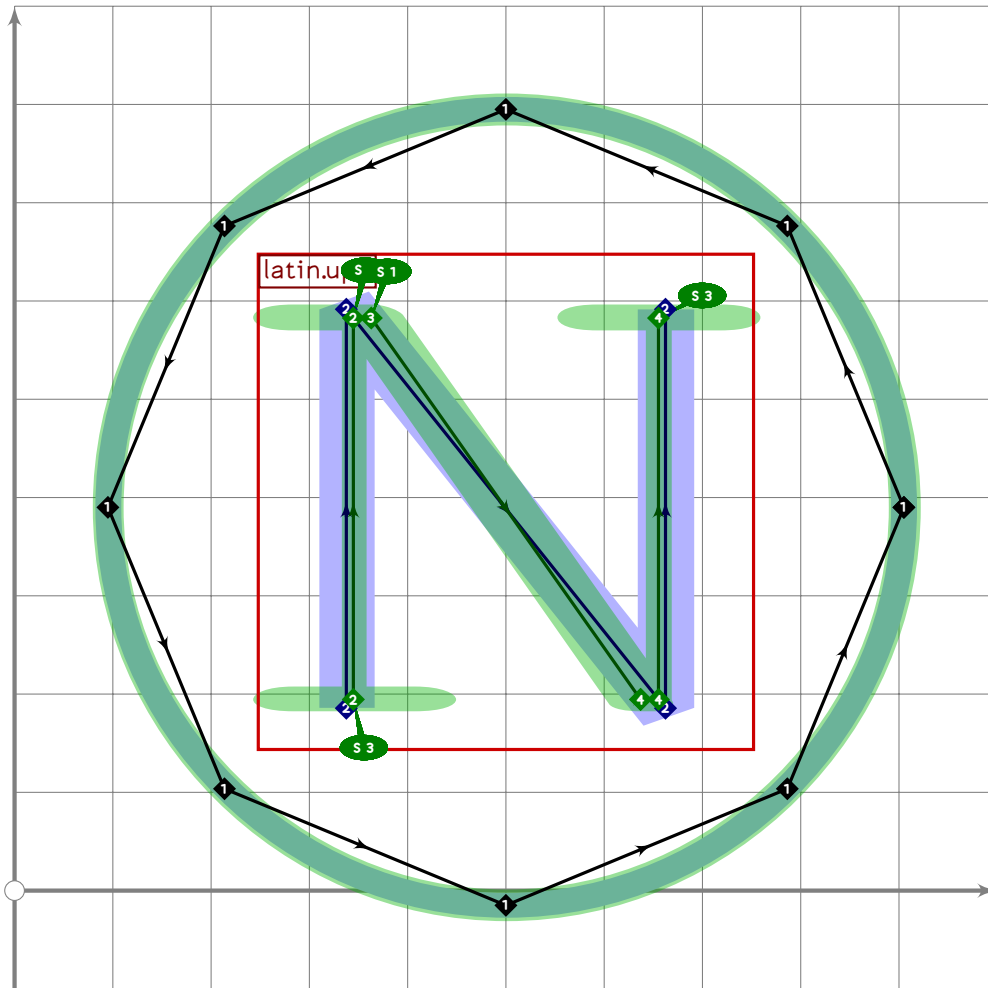
```

298 % M
299 begintsuglyph("uni24C2",194);
300 circle.single;
301 tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upm);
302 tsu_render;
303 endtsuglyph;
304

```

U+24C3  
tsuku.uni24C3

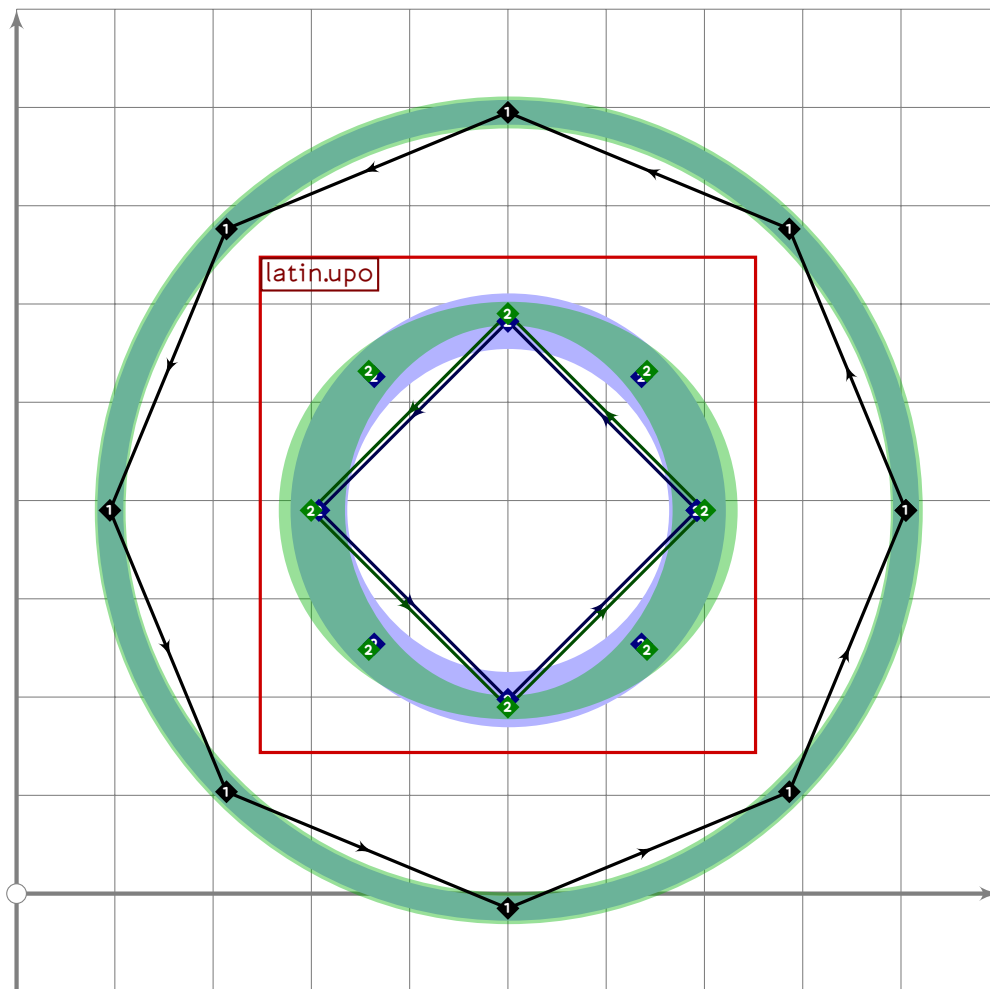
24



```

305 % N
306 begintsuglyph("uni24C3",195);
307   circle.single;
308   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upn);
309   tsu_render;
310 endtsuglyph;
311

```



```

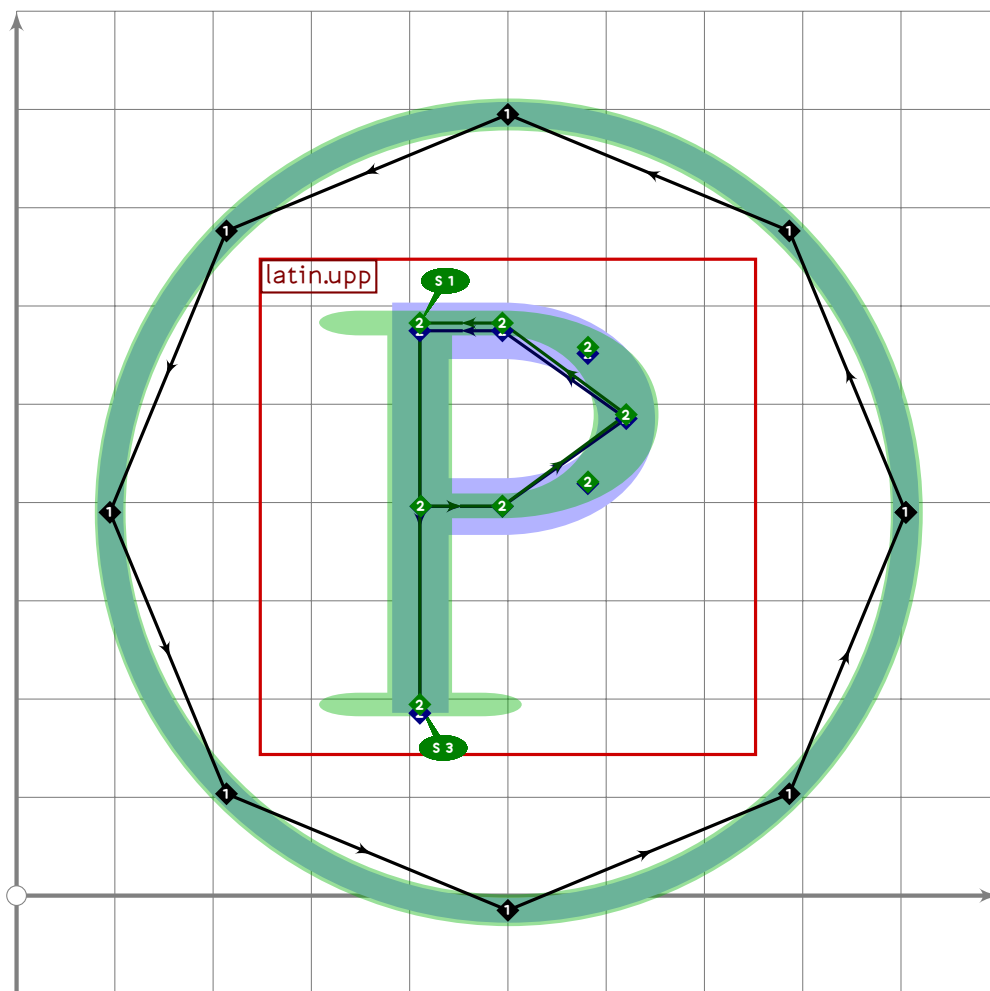
312 % O
313 begintsuglyph("uni24C4",196);
314   circle.single;
315   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upo);
316   tsu_render;
317 endtsuglyph;
318

```



U+24C5  
tsuku.uni24C5

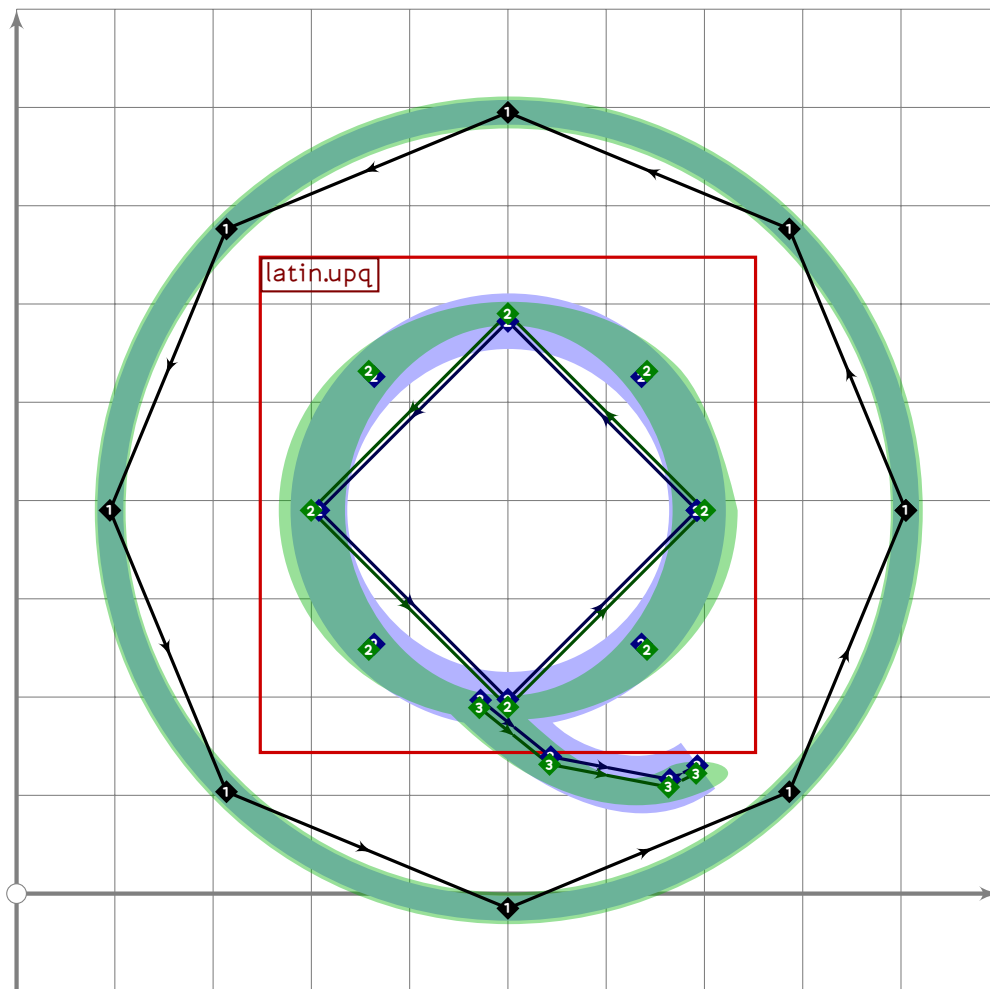
24



```

319 % P
320 begintsuglyph("uni24C5",197);
321   circle.single;
322   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upp);
323   tsu_render;
324 endtsuglyph;
325

```



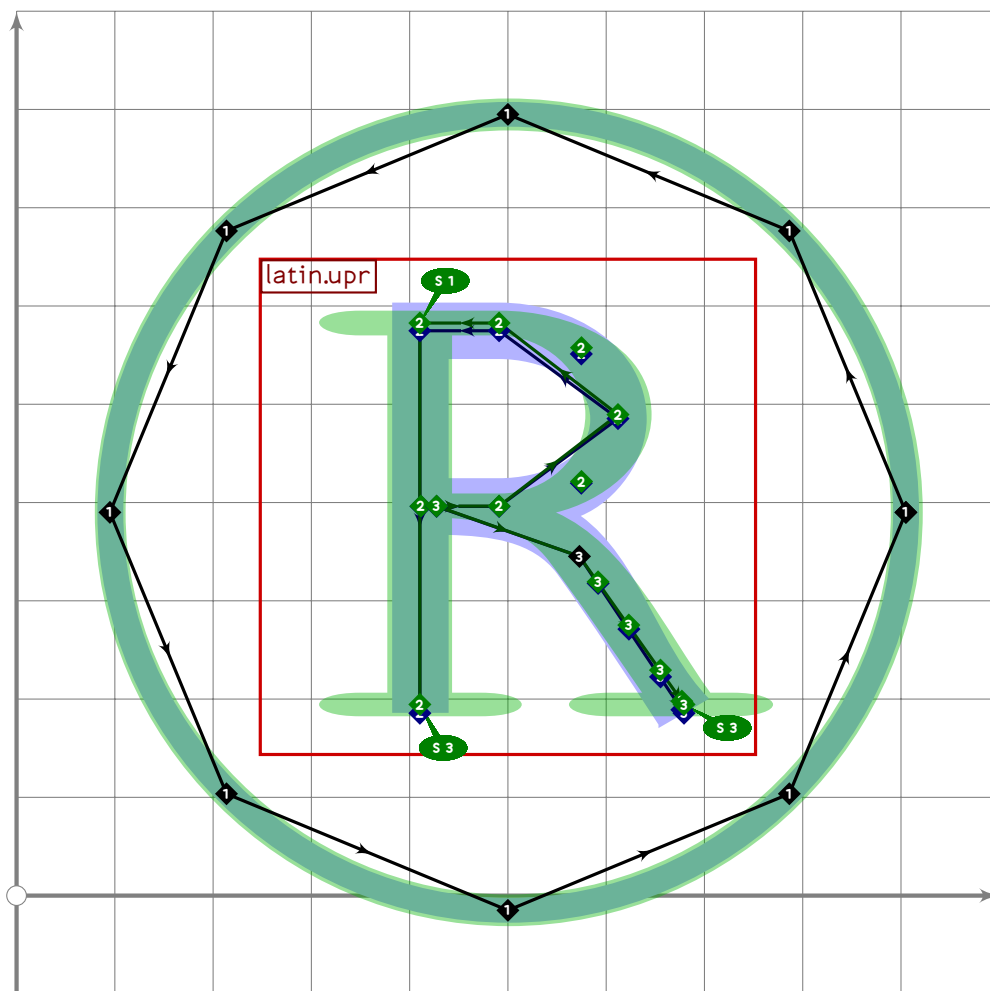
```

326 % Q
327 begintsuglyph("uni24C6",198);
328   circle.single;
329   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upq);
330   tsu_render;
331 endtsuglyph;
332

```

U+24C7  
tsuku.uni24C7

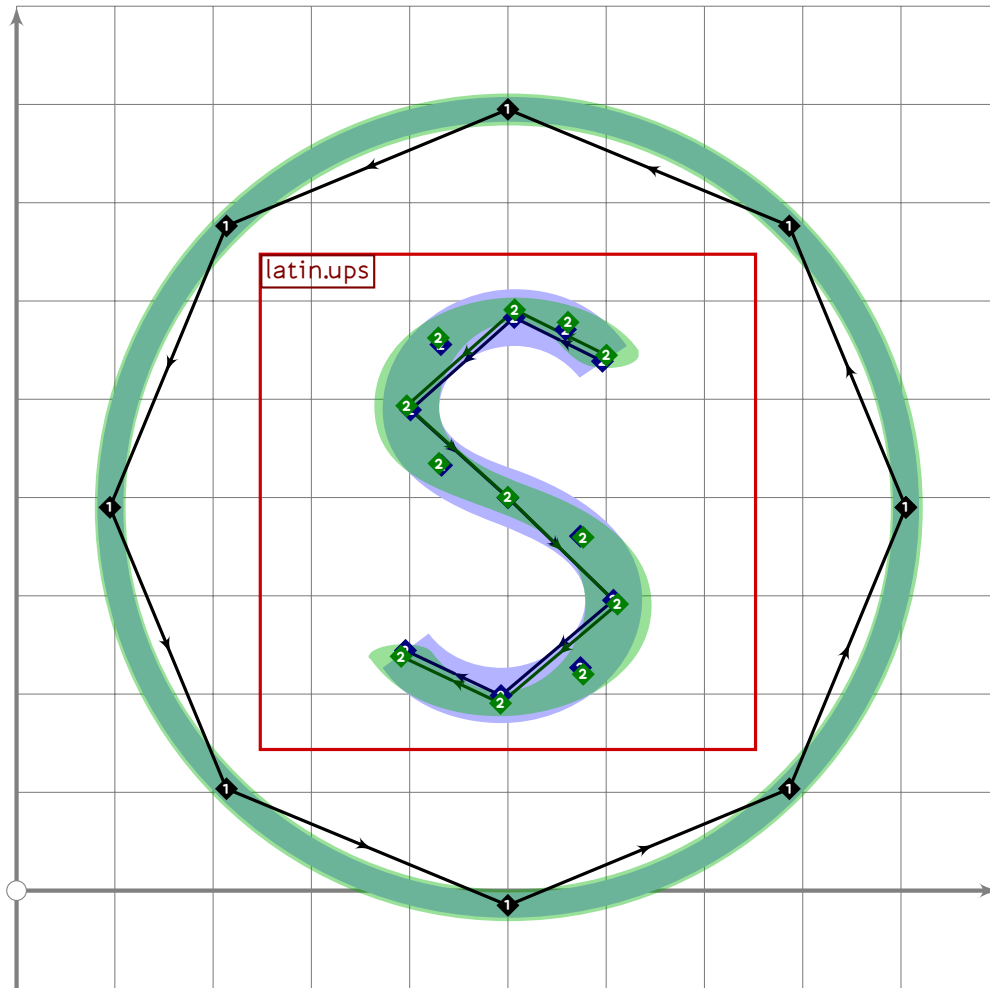
24



```

333 % R
334 begintsuglyph("uni24C7";199);
335   circle.single;
336   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upr);
337   tsu_render;
338 endtsuglyph;
339

```



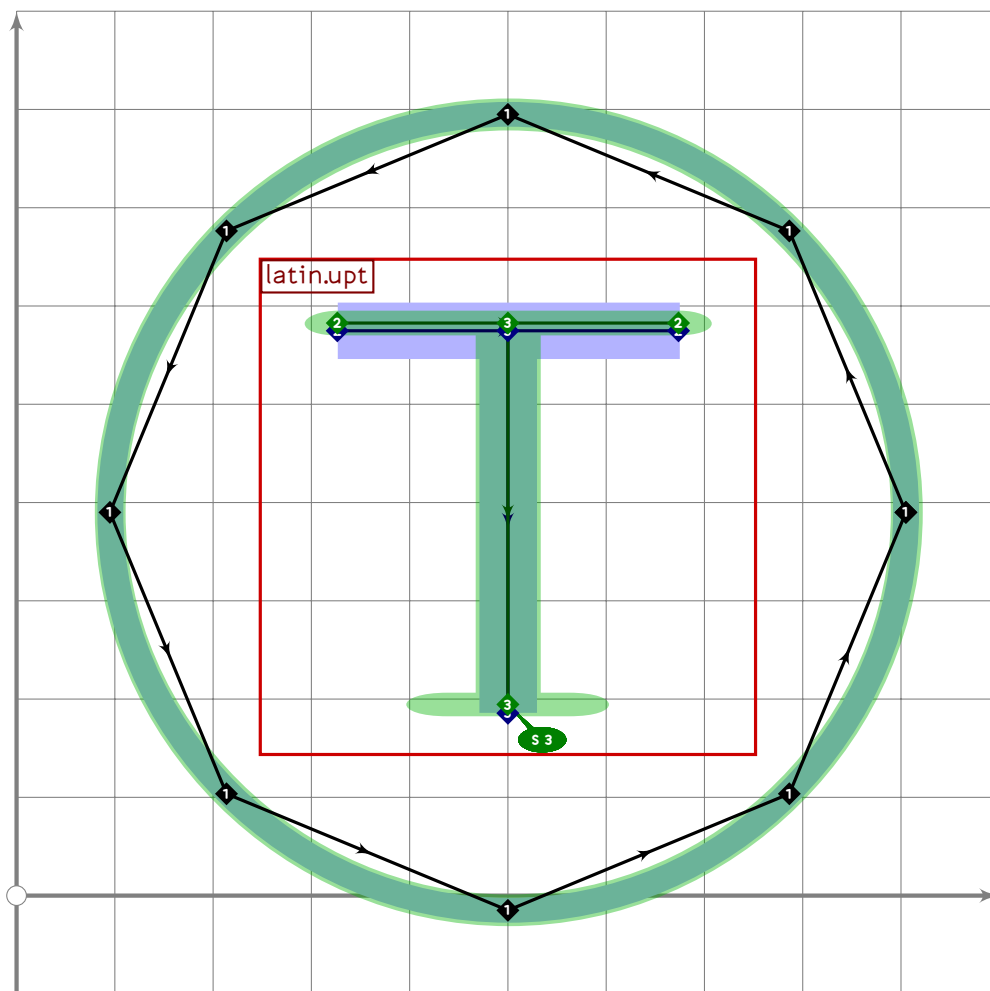
```

340 % S
341 begintsuglyph("uni24C8",200);
342   circle.single;
343   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.ups);
344   tsu_render;
345 endtsuglyph;
346

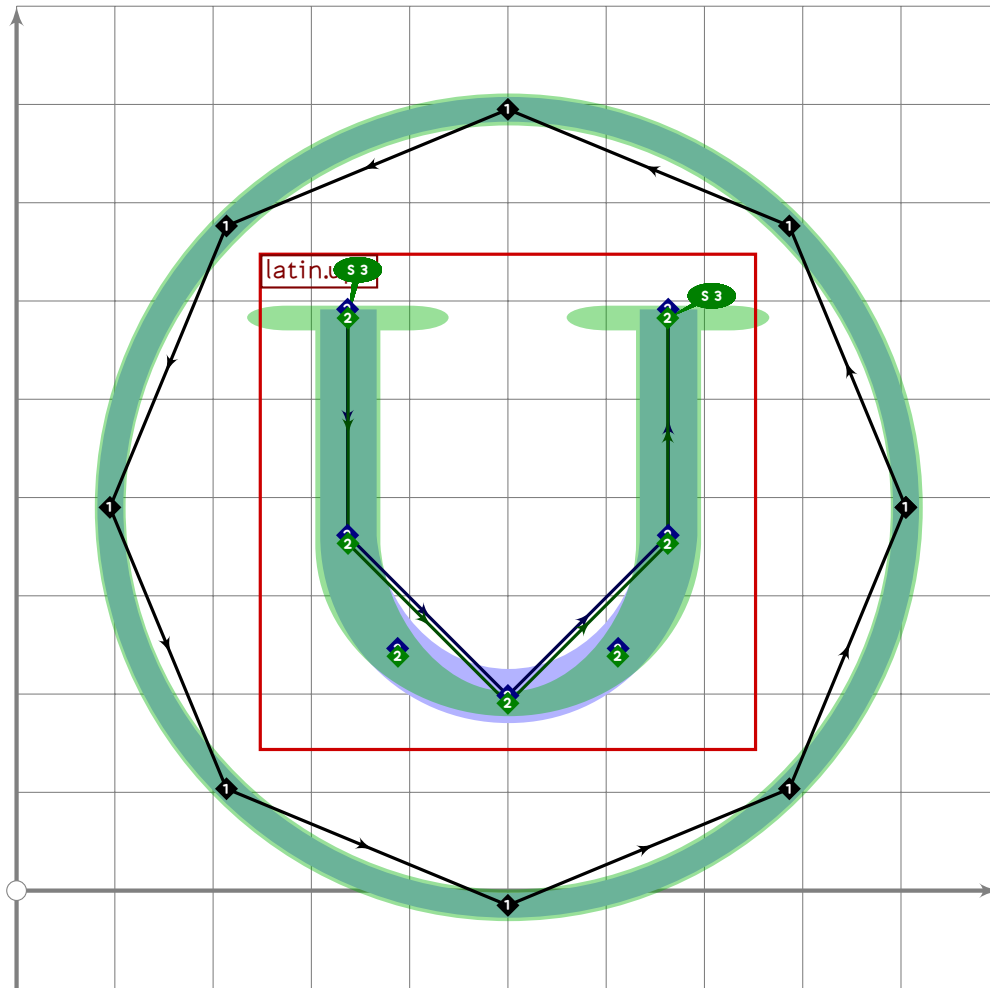
```

U+24C9  
tsuku.uni24C9

24



```
347 % T
348 begintsuglyph("uni24C9",201);
349   circle.single;
350   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upt);
351   tsu_render;
352 endtsuglyph;
353
```



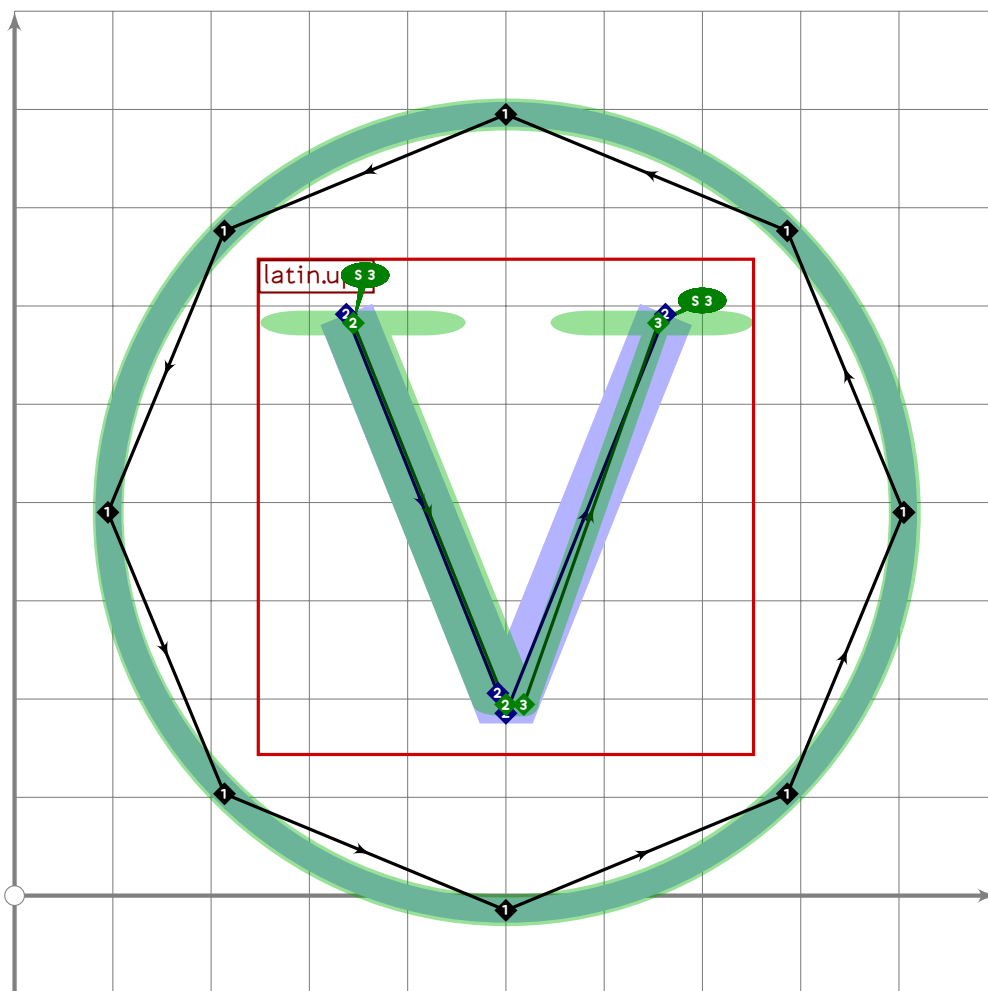
```

354 % U
355 begintsuglyph("uni24CA";202);
356   circle.single;
357   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upu);
358   tsu_render;
359 endtsuglyph;
360

```

U+24CB  
tsuku.uni24CB

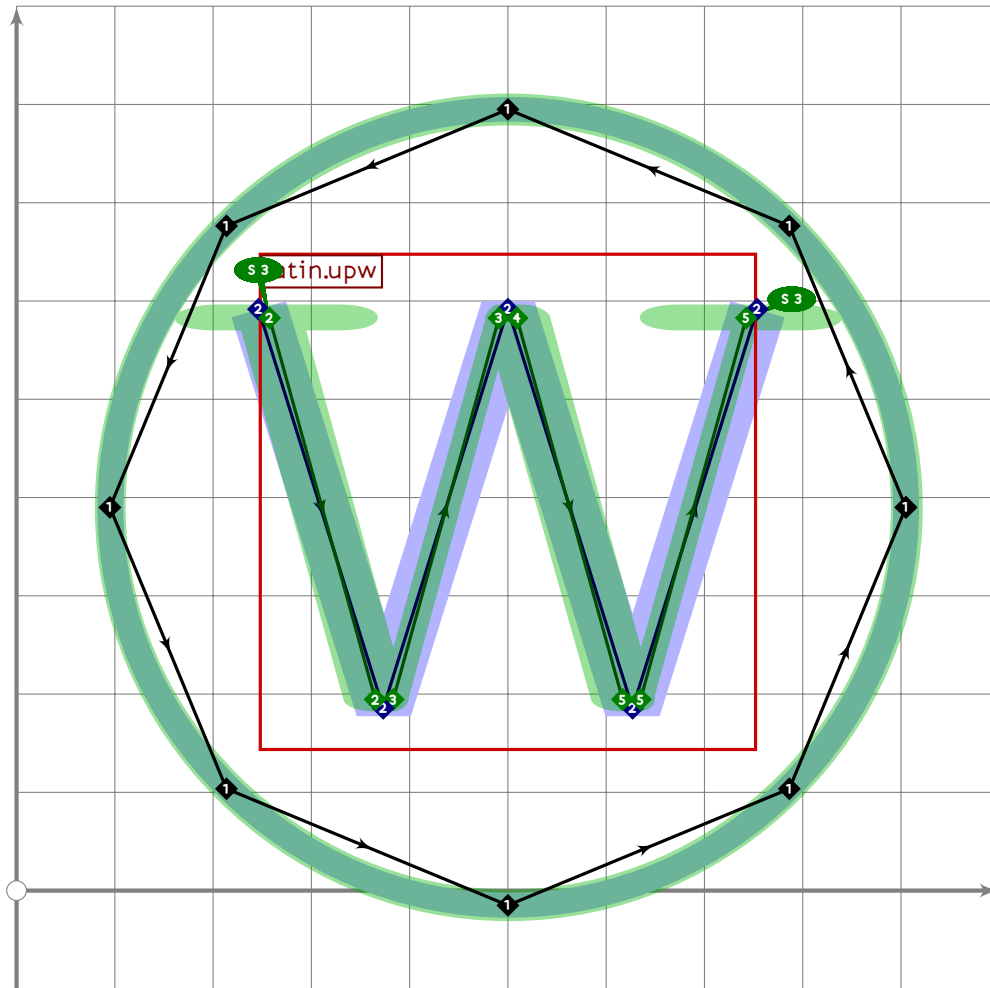
24



```

361 % V
362 begintsuglyph("uni24CB",203);
363   circle.single;
364   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upv);
365   tsu_render;
366 endtsuglyph;
367

```



```

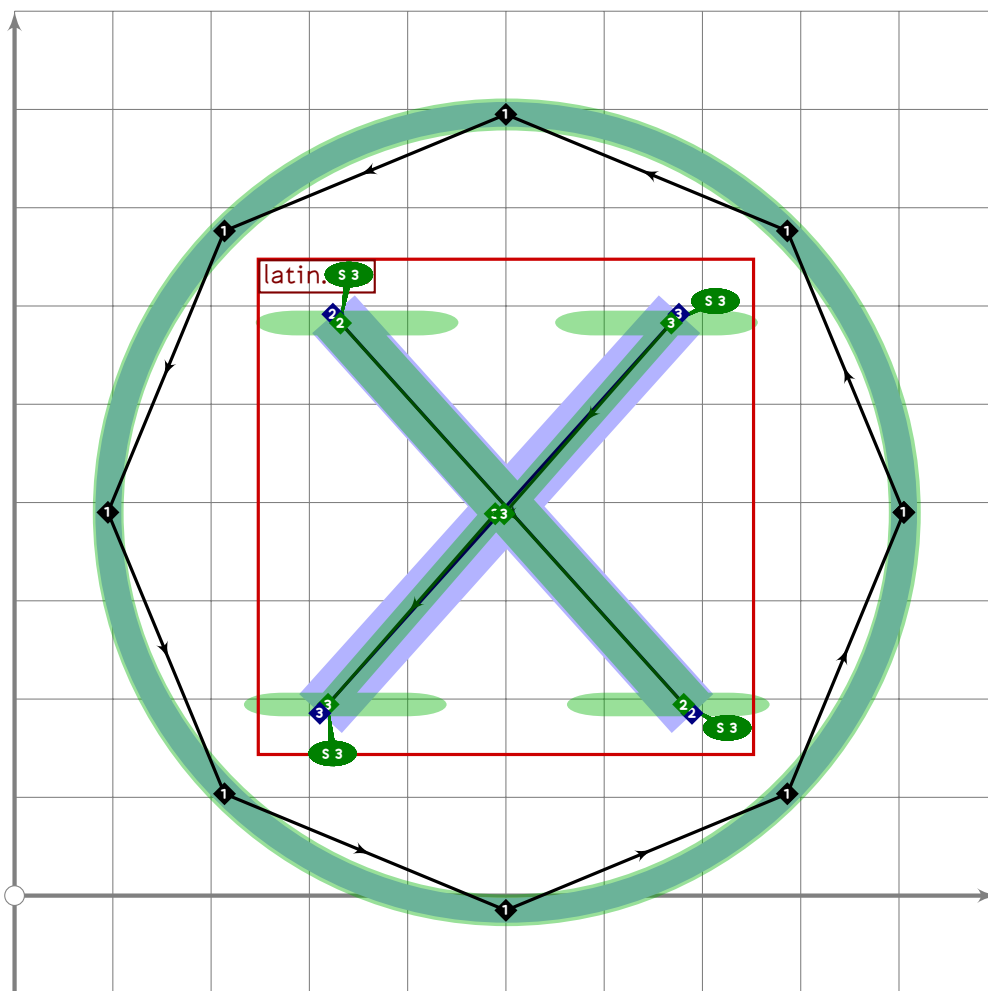
368 % W
369 begint Suglyph("uni24CC";204);
370   circle.single;
371   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upw);
372   tsu_render;
373 endtsuglyph;
374

```



U+24CD  
tsuku.uni24CD

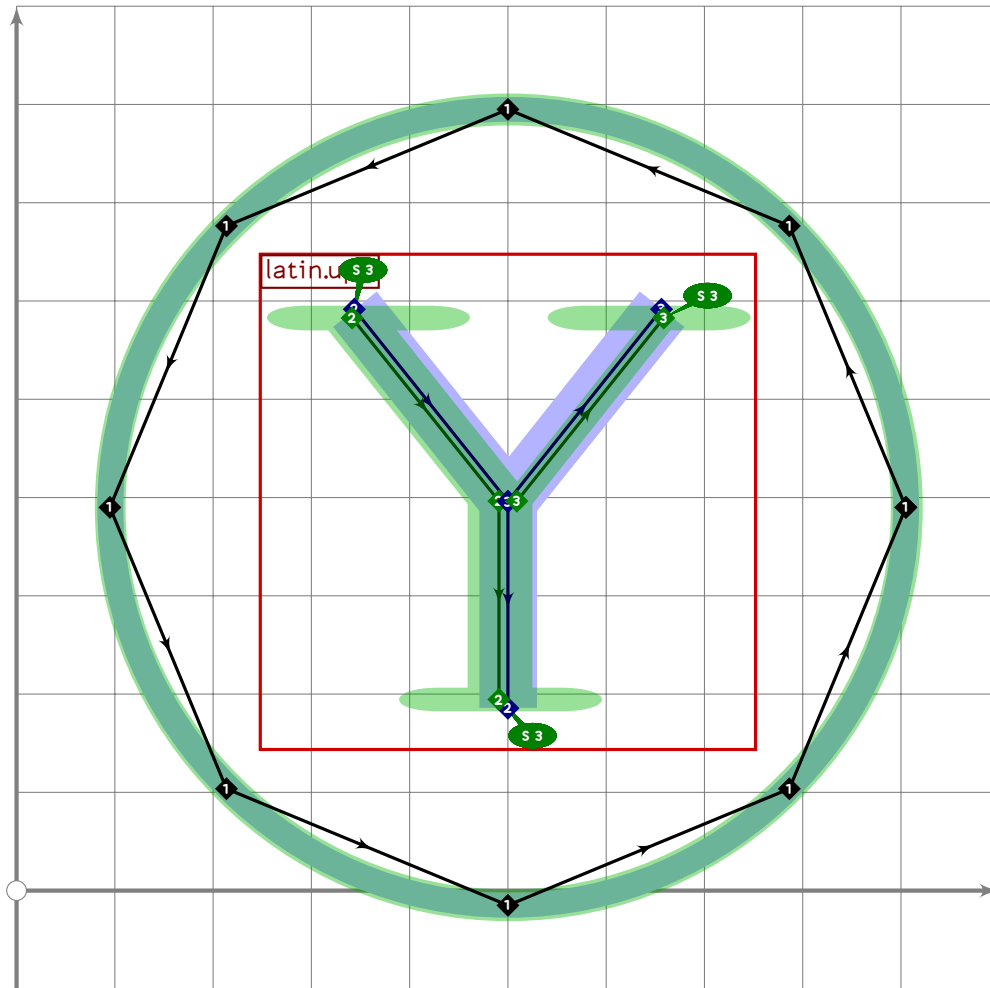
24



```

375 % X
376 begintsuglyph("uni24CD";205);
377   circle.single;
378   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upx);
379   tsu_render;
380 endtsuglyph;
381

```



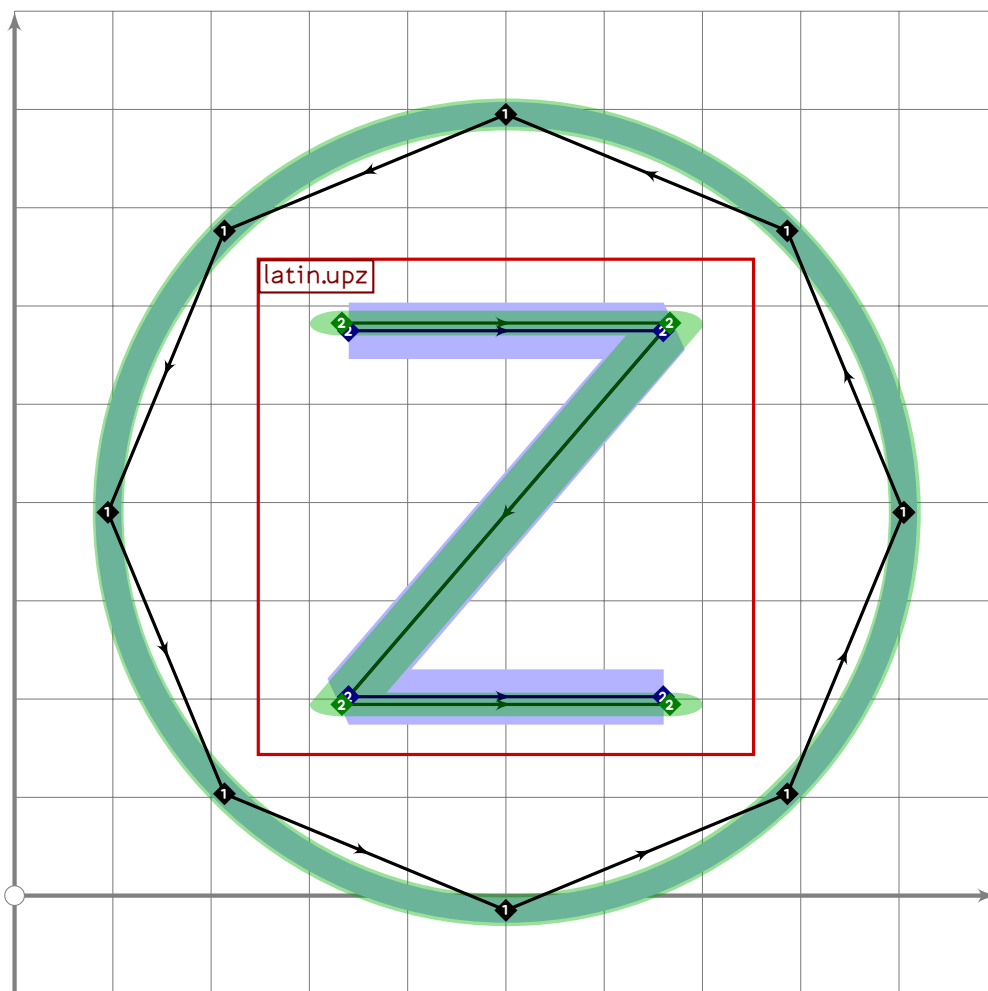
```

382 % Y
383 begintsuglyph("uni24CE";206);
384   circle.single;
385   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upy);
386   tsu_render;
387 endtsuglyph;
388

```

U+24CF  
tsuku.uni24CF

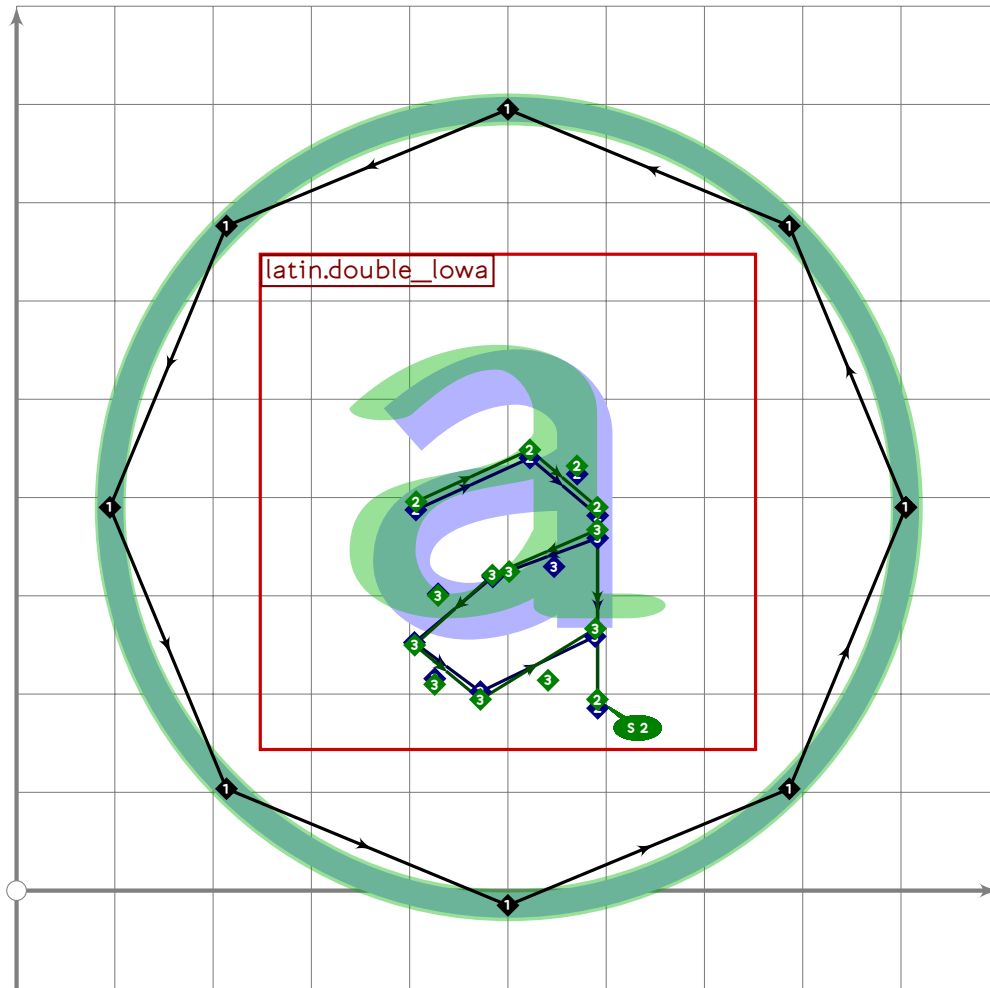
24



```

389 % Z
390 begint Suglyph("uni24CF";207);
391   circle.single;
392   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upz);
393   tsu_render;
394 endtsuglyph;
395

```



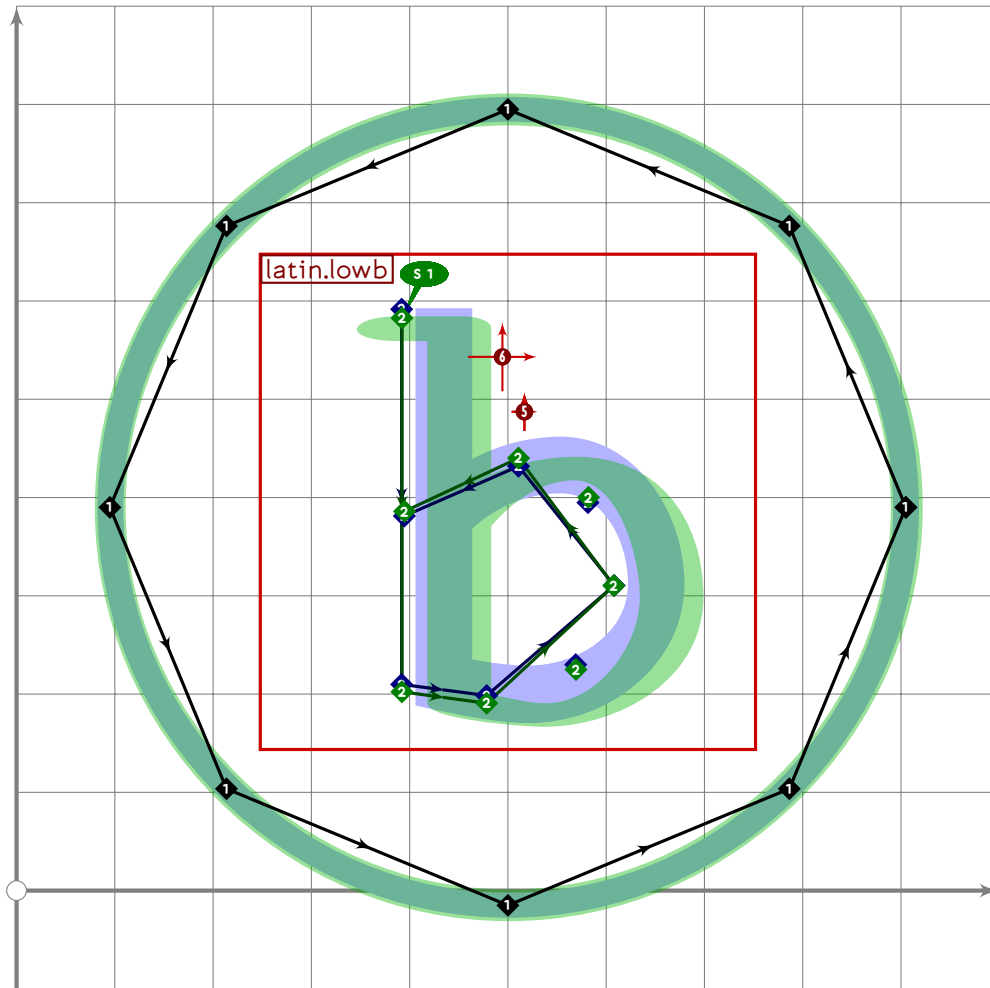
```

396 % a
397 begintsuglyph("uni24D0";208);
398   circle.single;
399   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowa);
400   tsu_render_in_circle(tsu_xf.cbound);
401 endtsuglyph;
402

```

U+24D1  
tsuku.uni24D1

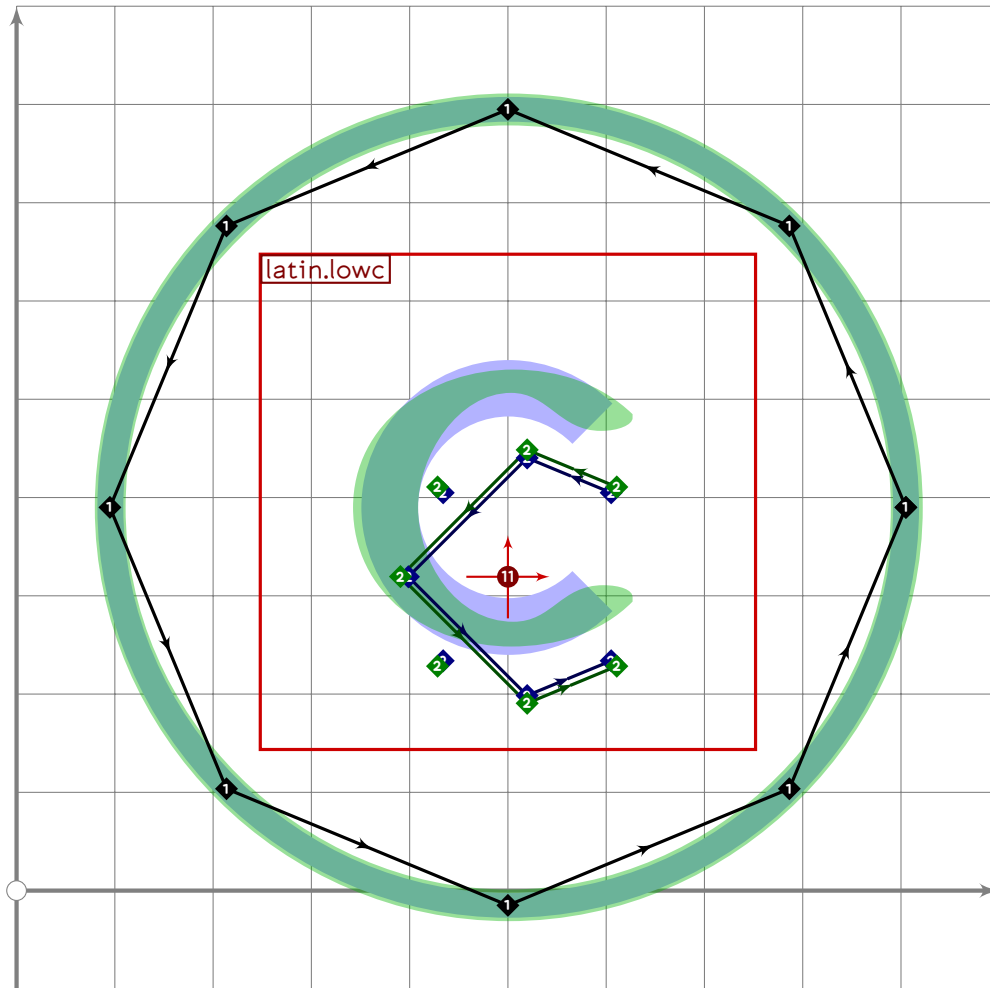
24



```

403 % b
404 begintsuglyph("uni24D1";209);
405   circle.single;
406   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowb);
407   tsu_render_in_circle(tsu_xf.cbound);
408 endtsuglyph;
409

```



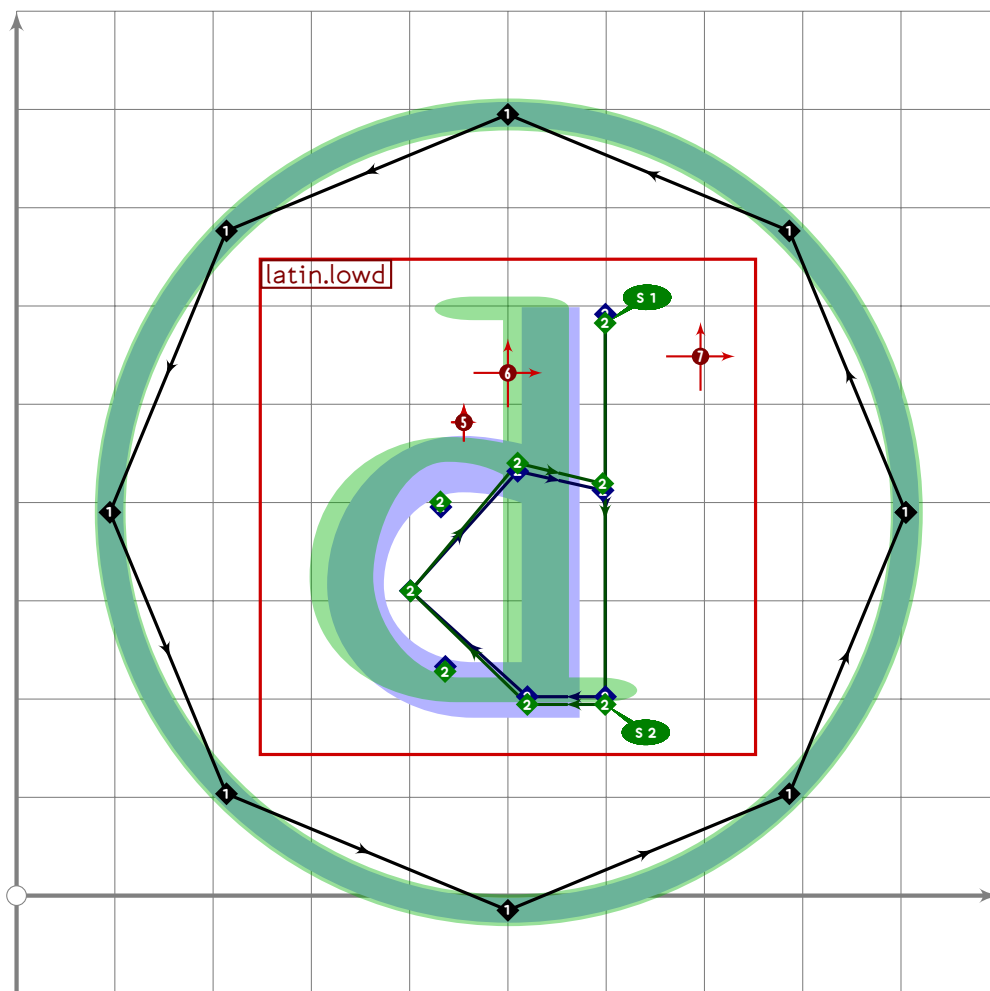
```

410 % c
411 begintsuglyph("uni24D2";210);
412   circle.single;
413   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowc);
414   tsu_render_in_circle(tsu_xf.cbound);
415 endtsuglyph;
416

```

U+24D3  
tsuku.uni24D3

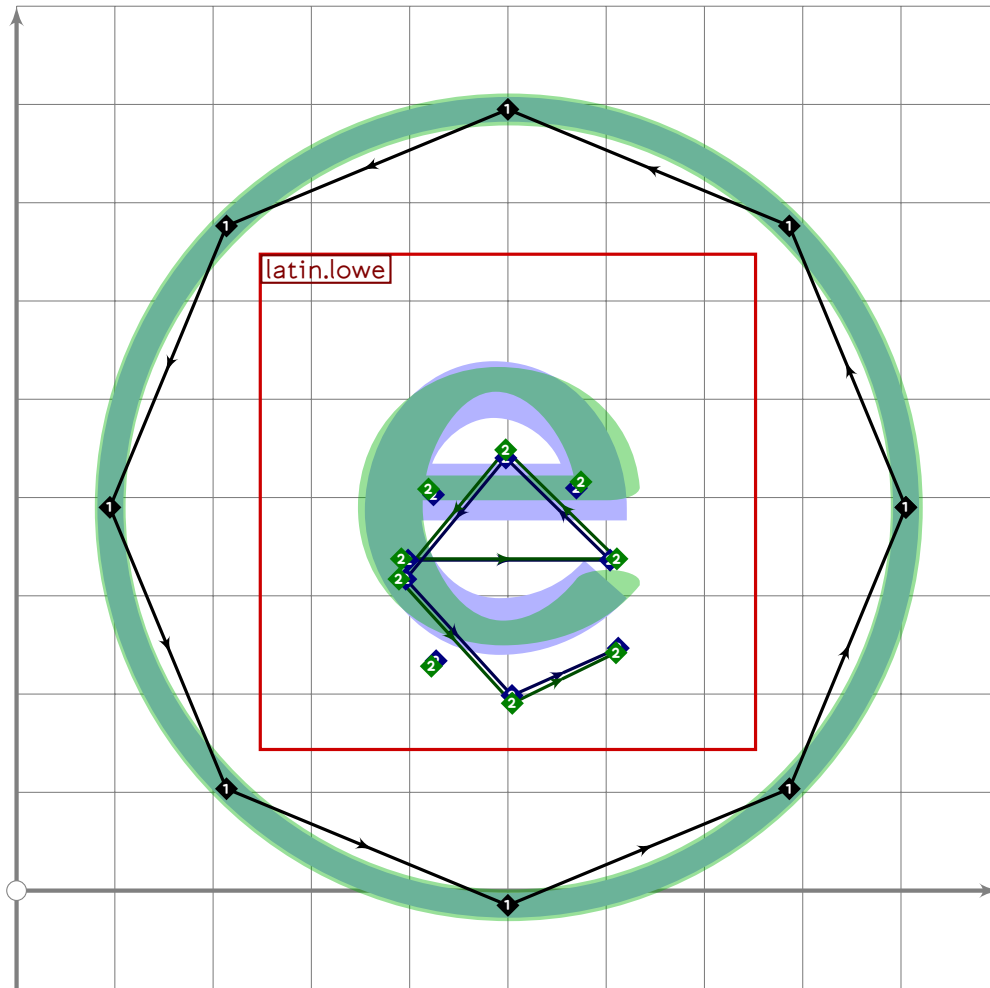
24



```

417 % d
418 begintsuglyph("uni24D3",211);
419   circle.single;
420   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowd);
421   tsu_render_in_circle(tsu_xf.cbound);
422 endtsuglyph;
423

```



```

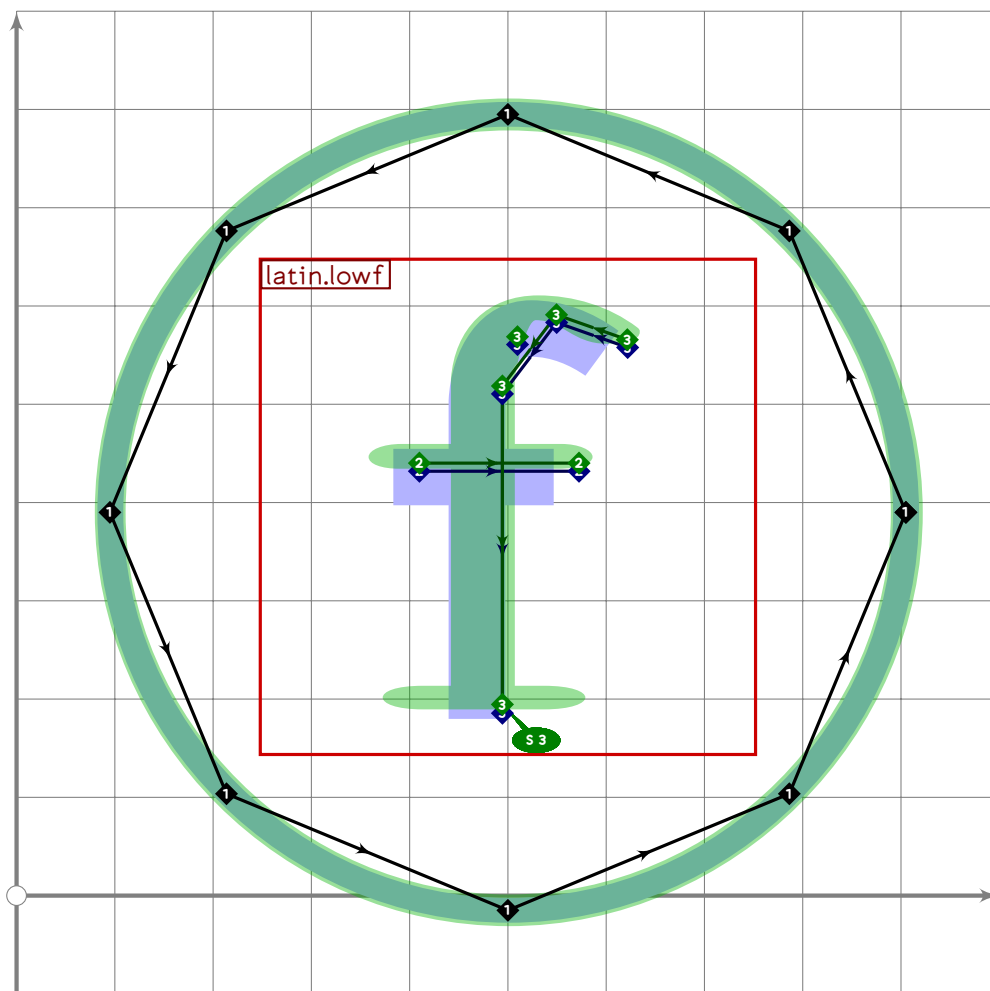
424 % e
425 begintsuglyph("uni24D4";212);
426   circle.single;
427   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowe);
428   tsu_render_in_circle(tsu_xf.cbound);
429 endtsuglyph;
430

```

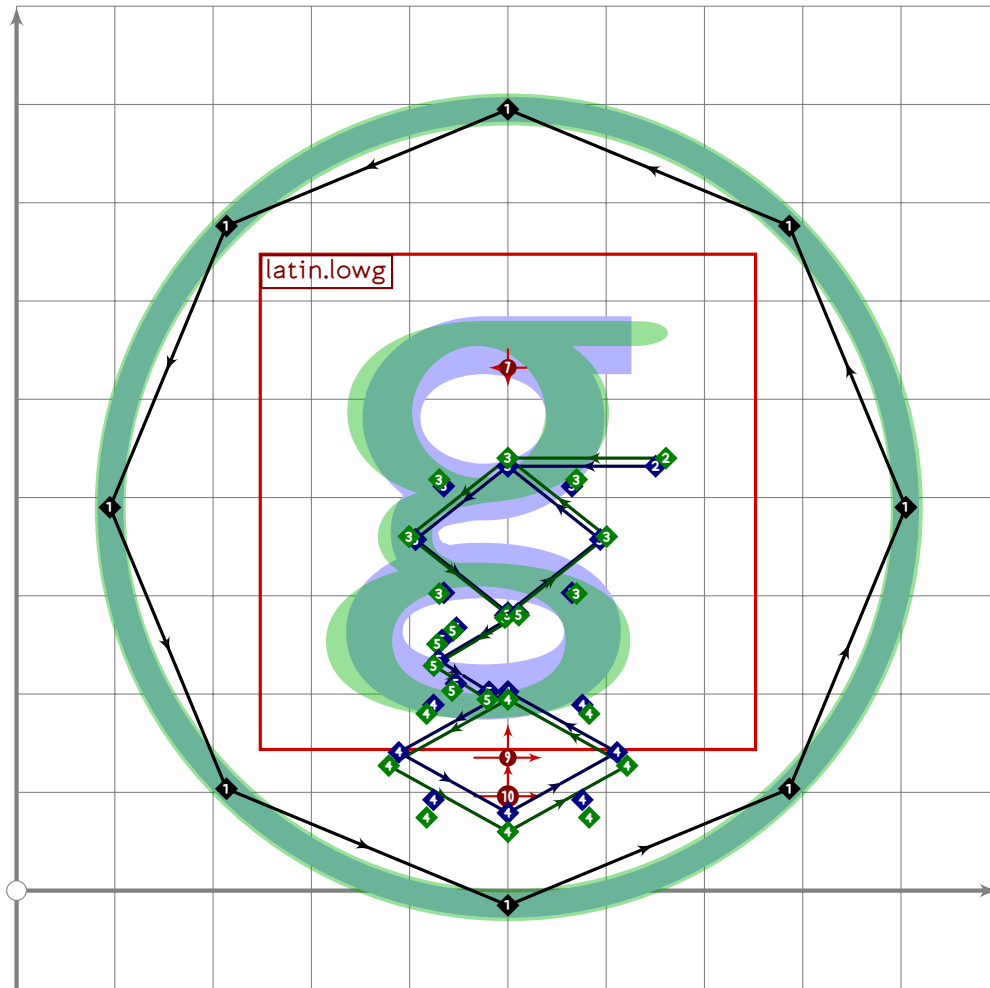


U+24D5  
tsuku.uni24D5

24



```
431 % f
432 begintsuglyph("uni24D5",213);
433   circle.single;
434   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowf);
435   tsu_render_in_circle(tsu_xf.cbound);
436 endsuglyph;
437
```



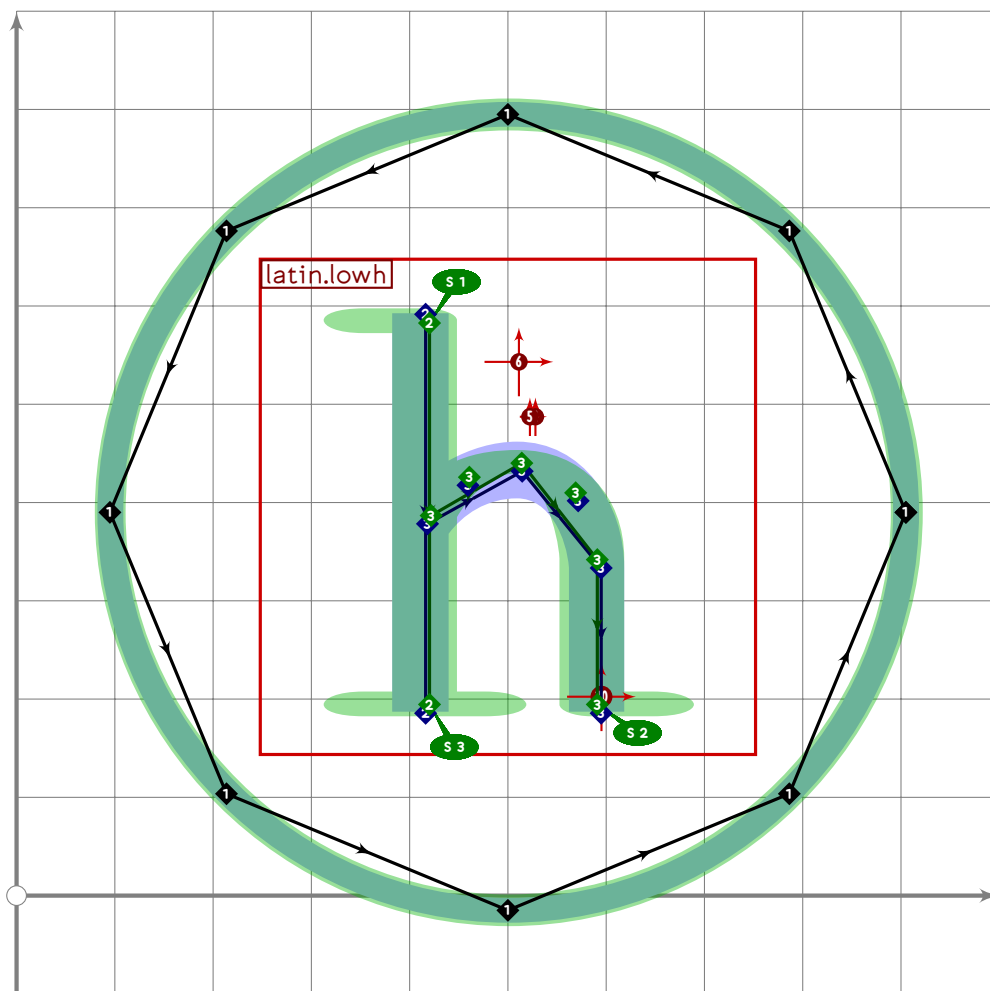
```

438 % g
439 begintsuglyph("uni24D6",214);
440   circle.single;
441   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowg);
442   tsu_render_in_circle(tsu_xf.cbound);
443 endtsuglyph;
444

```

U+24D7  
tsuku.uni24D7

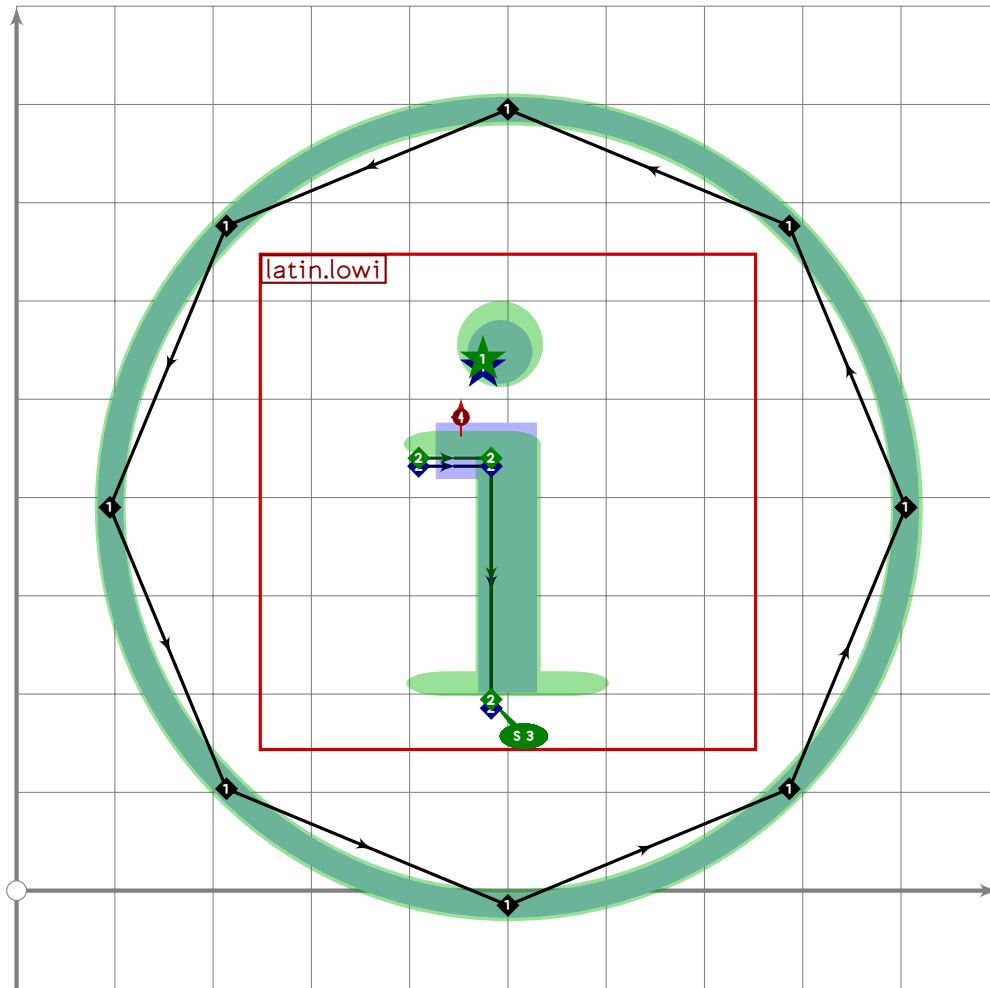
24



```

445 % h
446 begintsuglyph("uni24D7";215);
447   circle.single;
448   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowh);
449   tsu_render_in_circle(tsu_xf.cbound);
450 endtsuglyph;
451

```



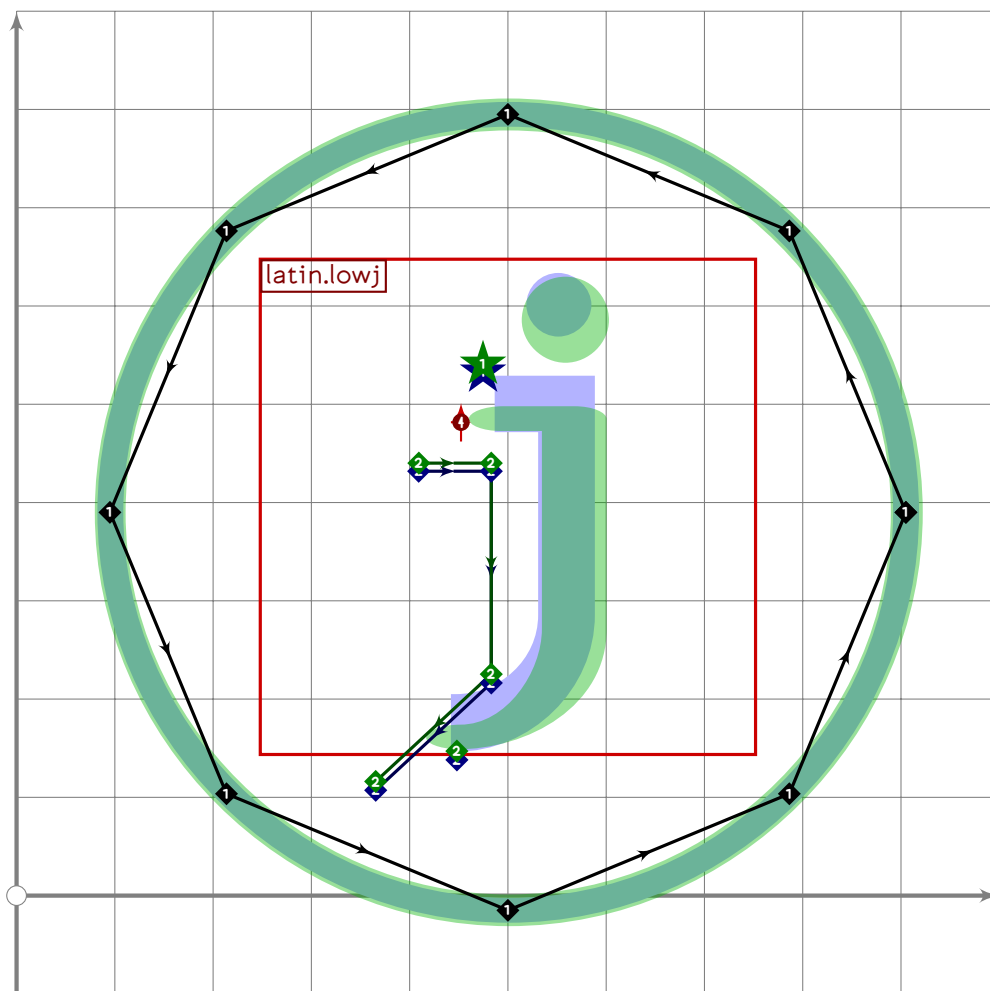
```

452 % i
453 begintsuglyph("uni24D8",216);
454   circle.single;
455   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowi);
456   tsu_render_in_circle(tsu_xf.cbound);
457 endtsuglyph;
458

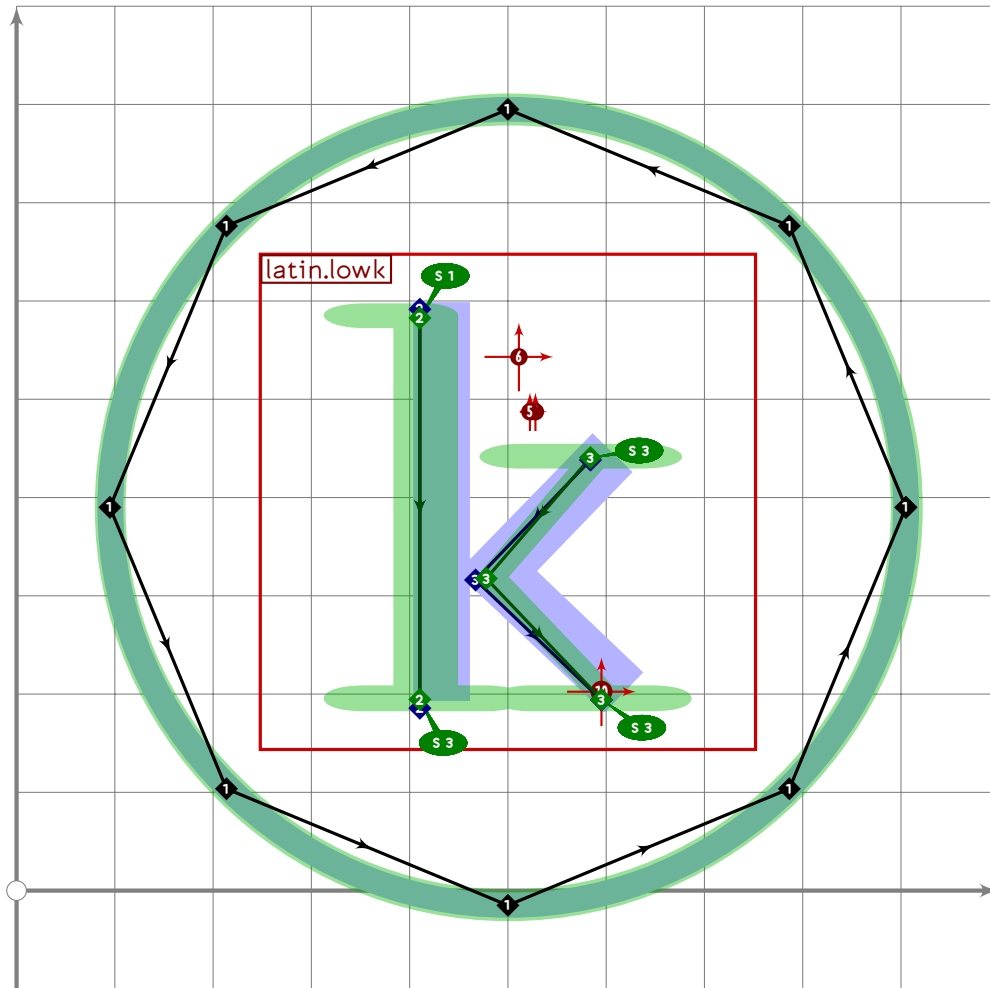
```

U+24D9  
tsuku.uni24D9

24



```
459 % j
460 begintsuglyph("uni24D9";217);
461   circle.single;
462   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowj);
463   tsu_render_in_circle(tsu_xf.cbound);
464 endtsuglyph;
465
```



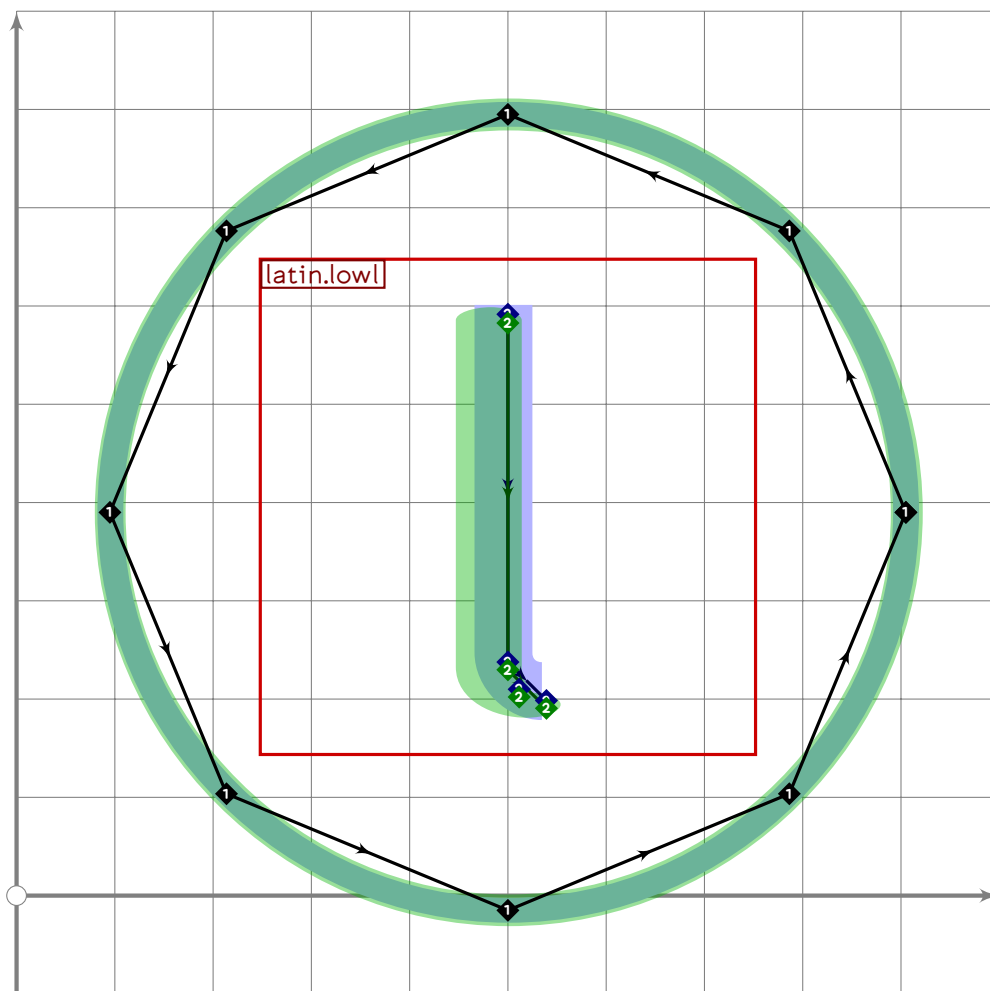
```

466 % k
467 begintsuglyph("uni24DA",218);
468   circle.single;
469   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowk);
470   tsu_render_in_circle(tsu_xf.cbound);
471 endtsuglyph;
472

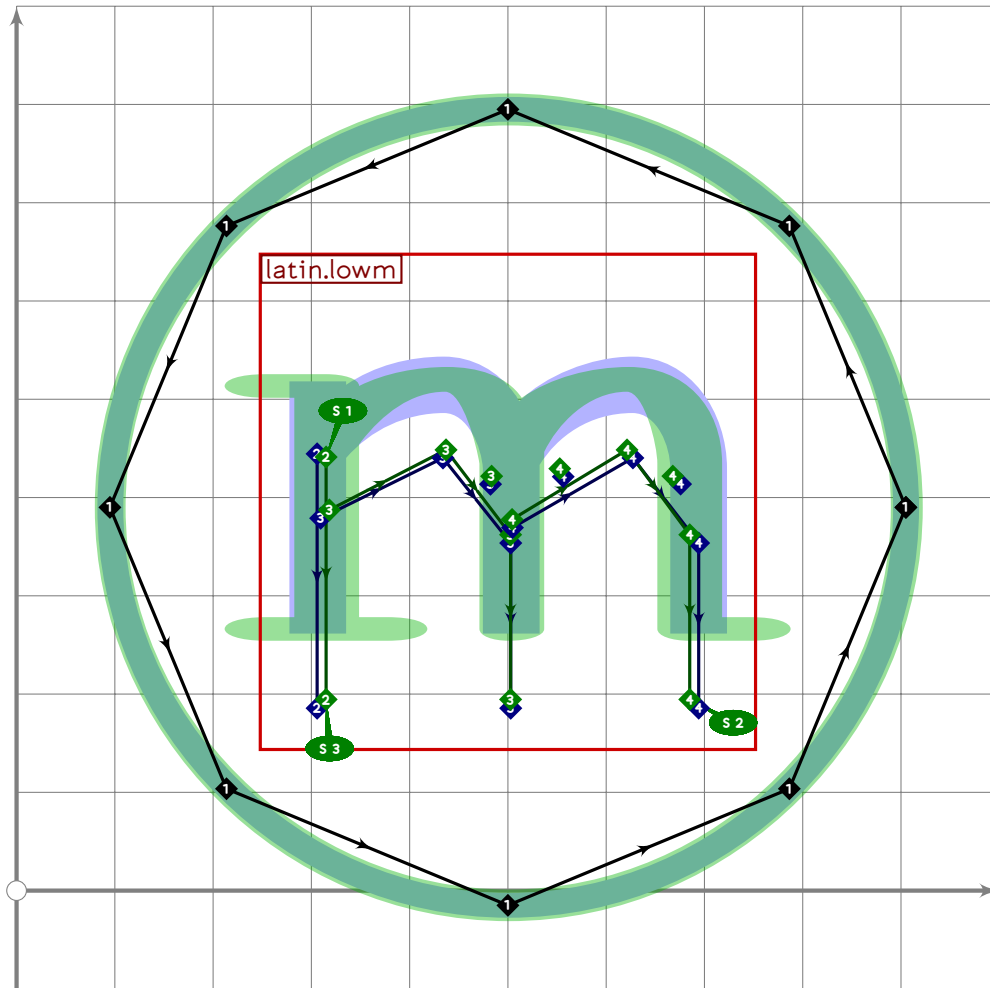
```

U+24DB  
tsuku.uni24DB

24



```
473 % l
474 begintsuglyph("uni24DB";219);
475   circle.single;
476   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowl);
477   tsu_render_in_circle(tsu_xf.cbound);
478 endtsuglyph;
479
```



```

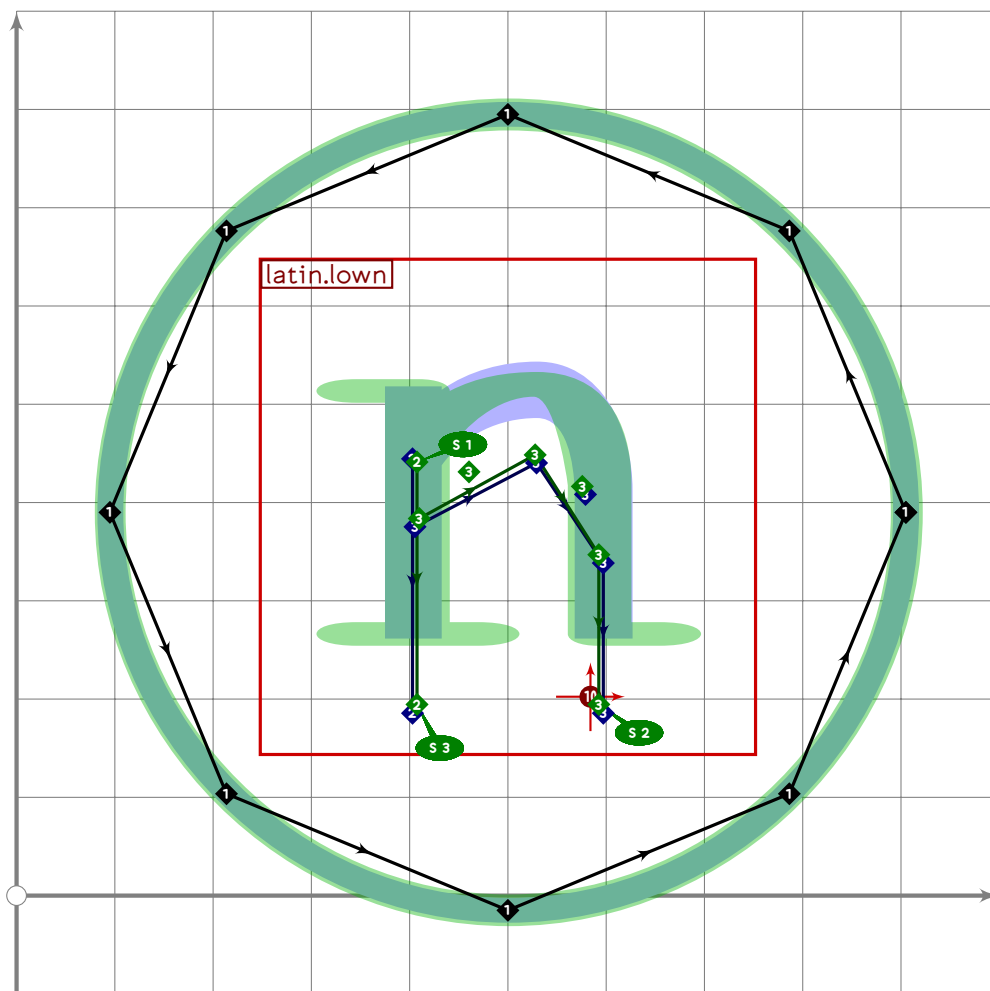
480 % m
481 begint Suglyph("uni24DC";220);
482   circle.single;
483   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowm);
484   tsu_render_in_circle(tsu_xf.cbound);
485 endtsuglyph;
486

```



U+24DD  
tsuku.uni24DD

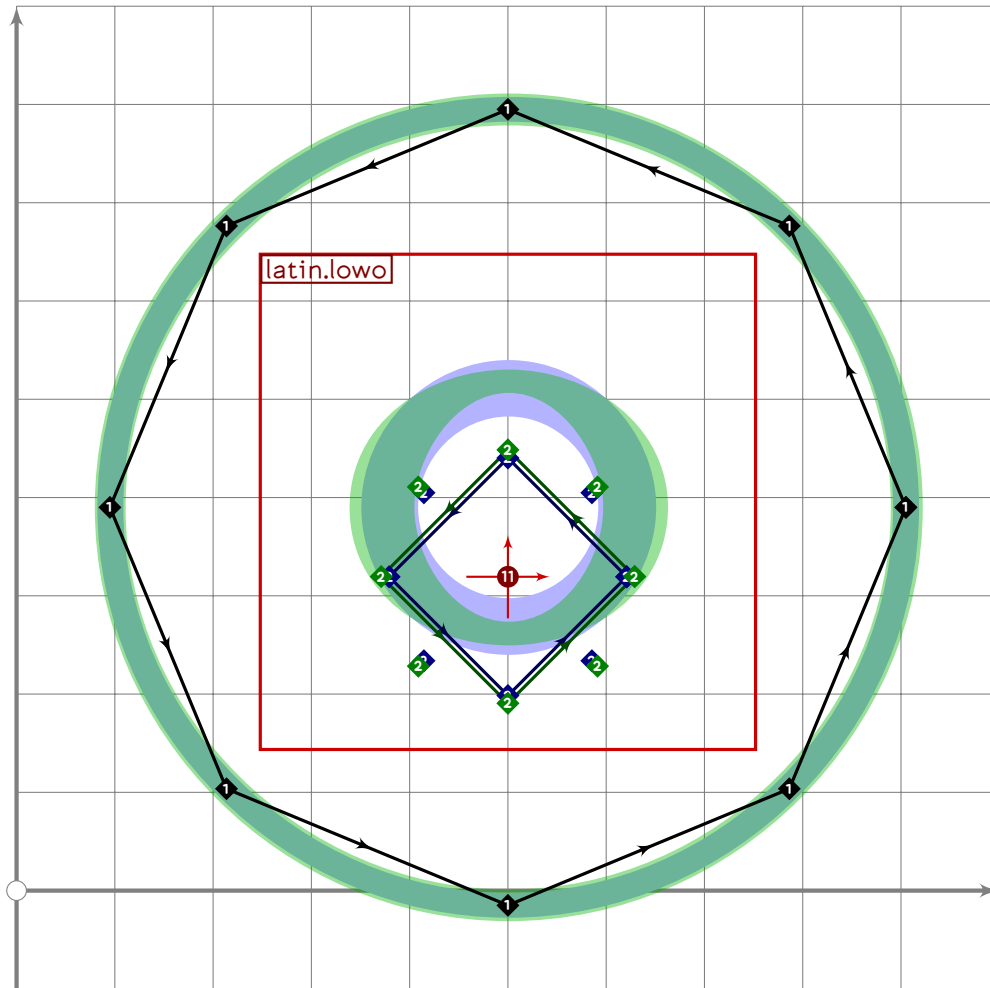
24



```

487 % n
488 begint Suglyph("uni24DD";221);
489   circle.single;
490   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lown);
491   tsu_render_in_circle(tsu_xf.cbound);
492 endtsuglyph;
493

```



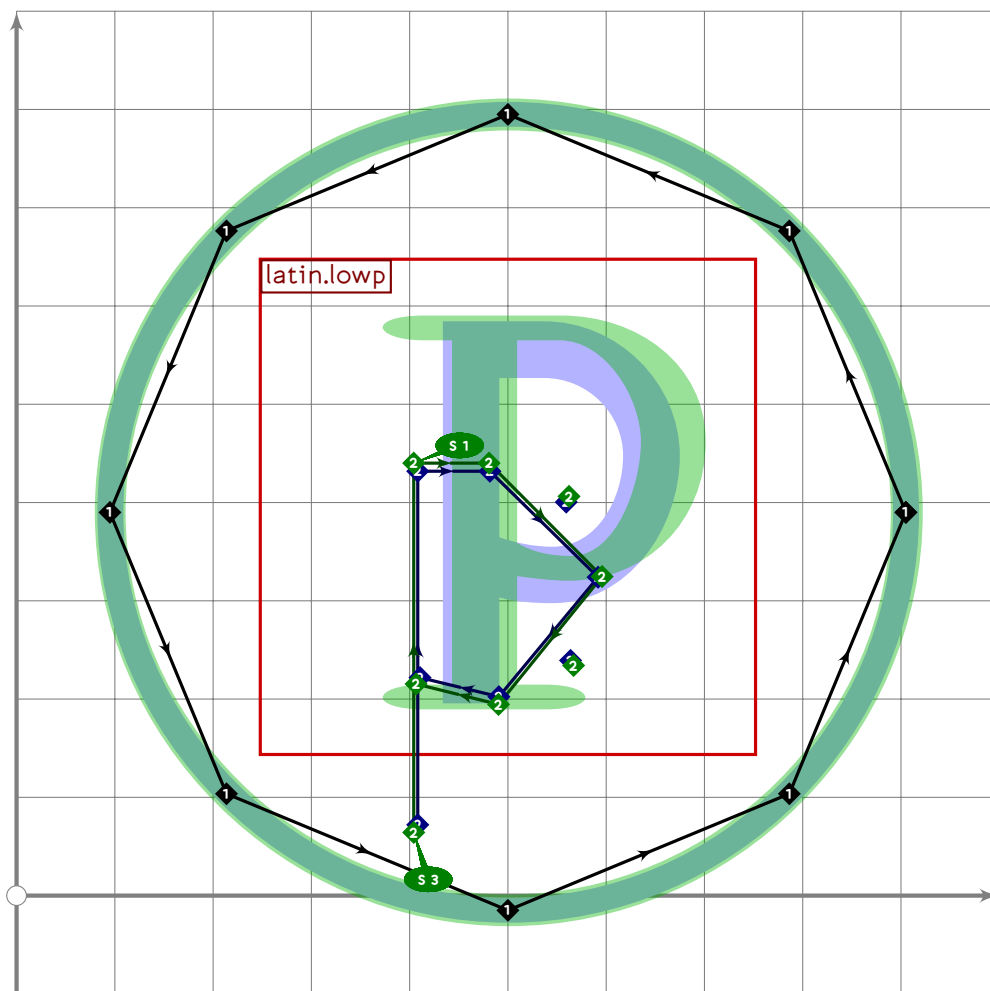
```

494 % o
495 begintsuglyph("uni24DE";222);
496   circle.single;
497   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowo);
498   tsu_render_in_circle(tsu_xf.cbound);
499 endtsuglyph;
500

```

U+24DF  
tsuku.uni24DF

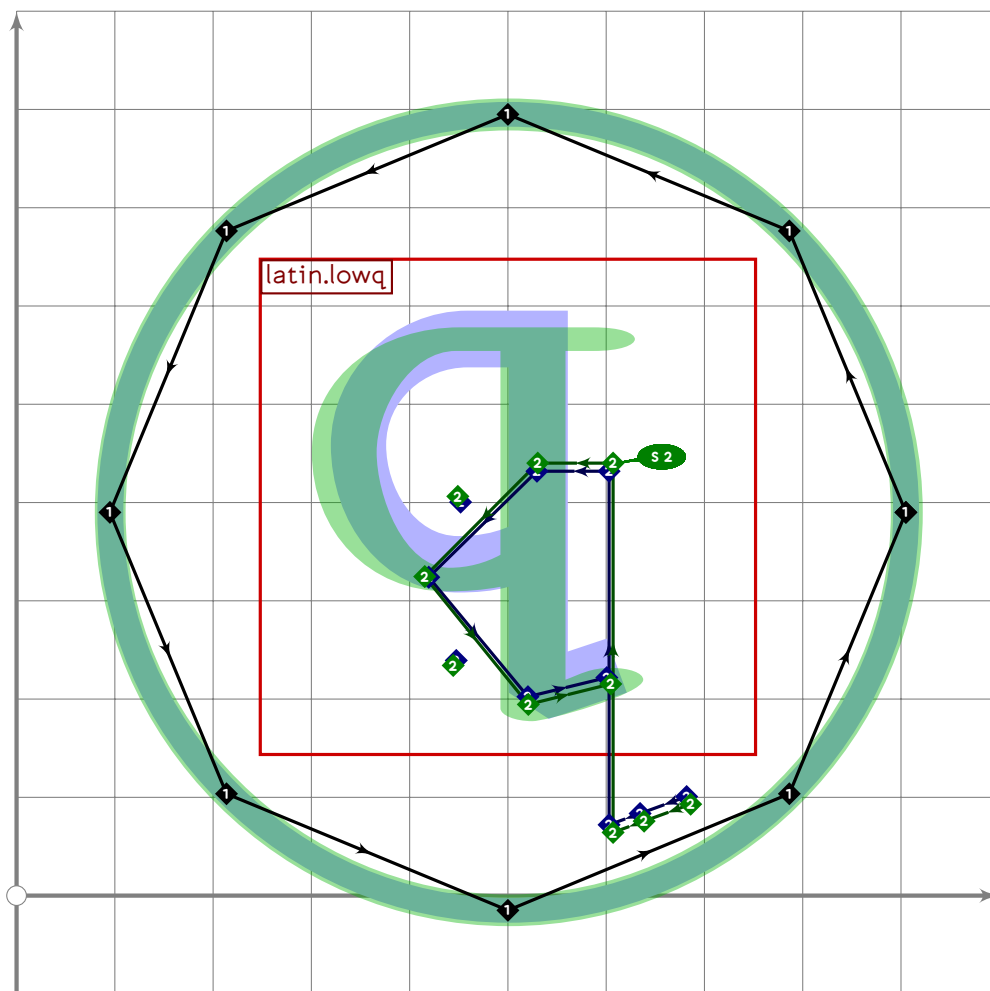
24



```

501 % p
502 begintsuglyph("uni24DF";223);
503   circle.single;
504   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowp);
505   tsu_render_in_circle(tsu_xf.cbound);
506 endtsuglyph;
507

```



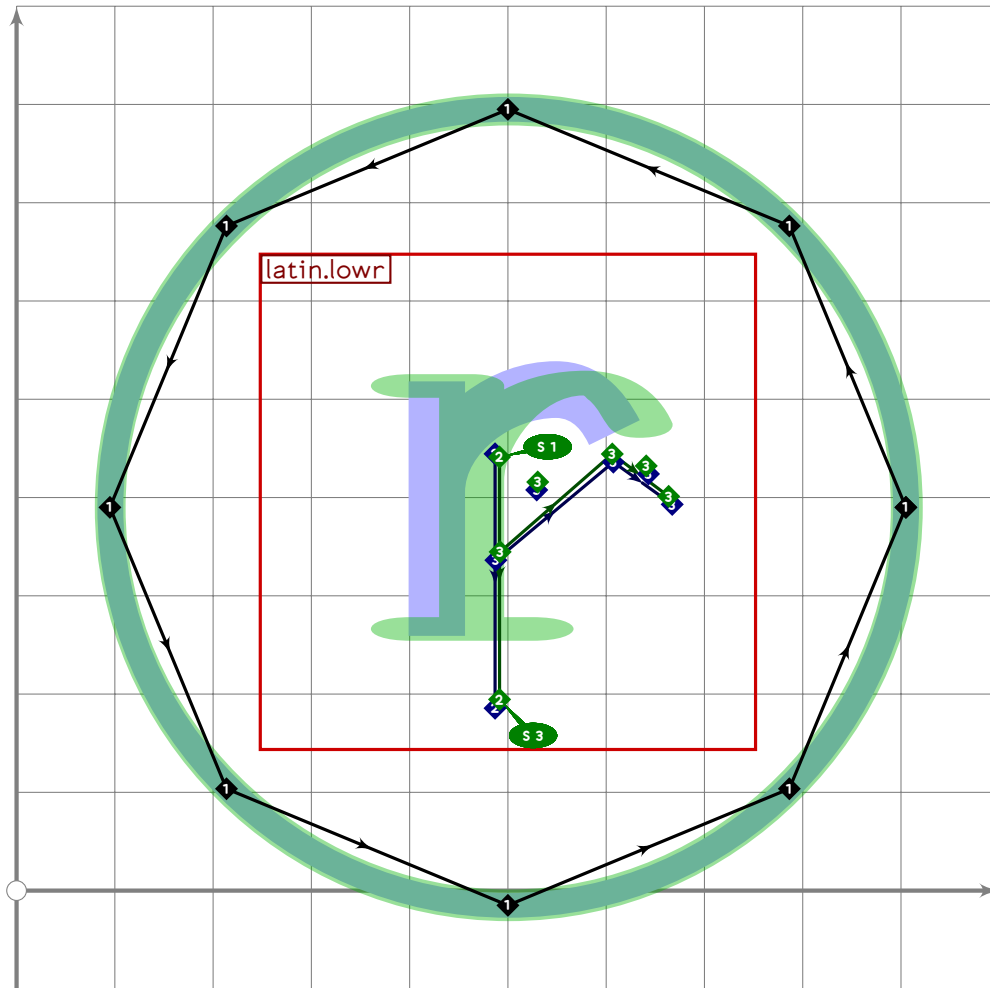
```

508 % q
509 begintsuglyph("uni24E0",224);
510   circle.single;
511   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowq);
512   tsu_render_in_circle(tsu_xf.cbound);
513 endtsuglyph;
514

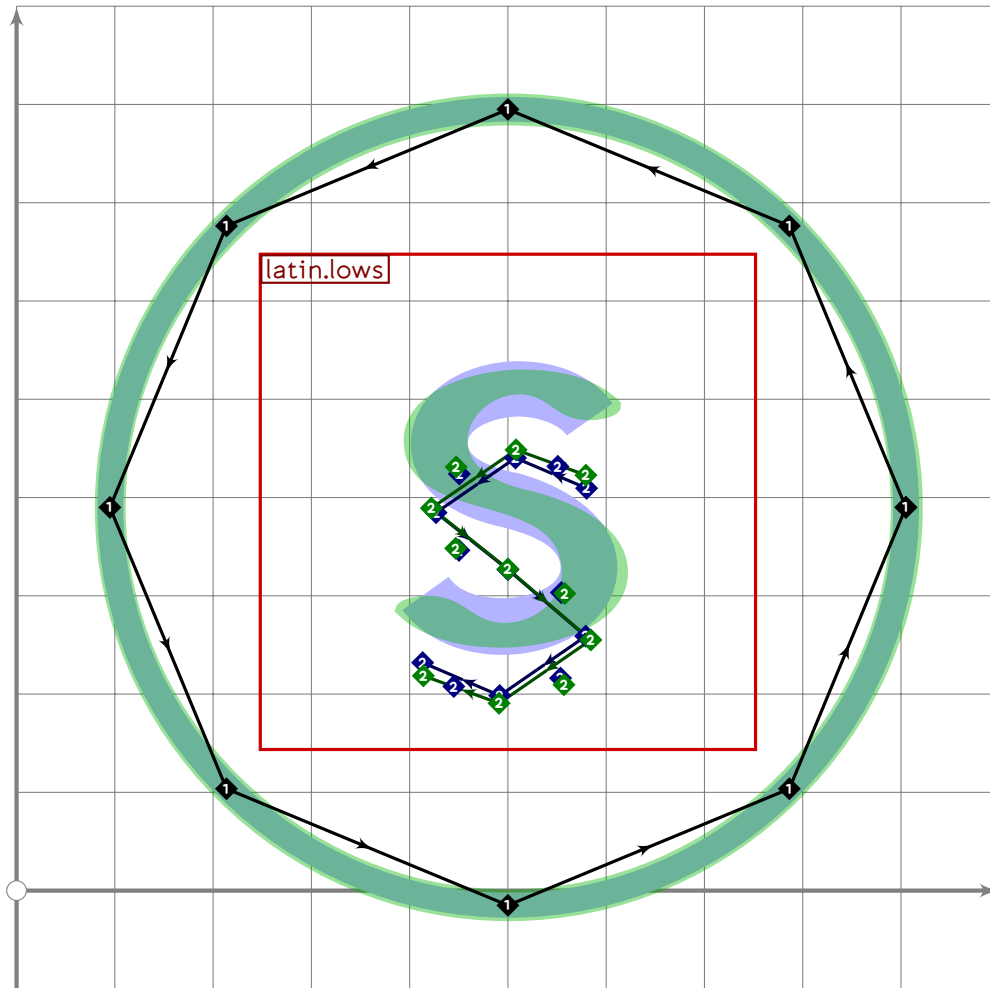
```

U+24E1  
tsuku.uni24E1

24



```
515 % r
516 begint Suglyph("uni24E1";225);
517   circle.single;
518   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowr);
519   tsu_render_in_circle(tsu_xf.cbound);
520 endtsuglyph;
521
```



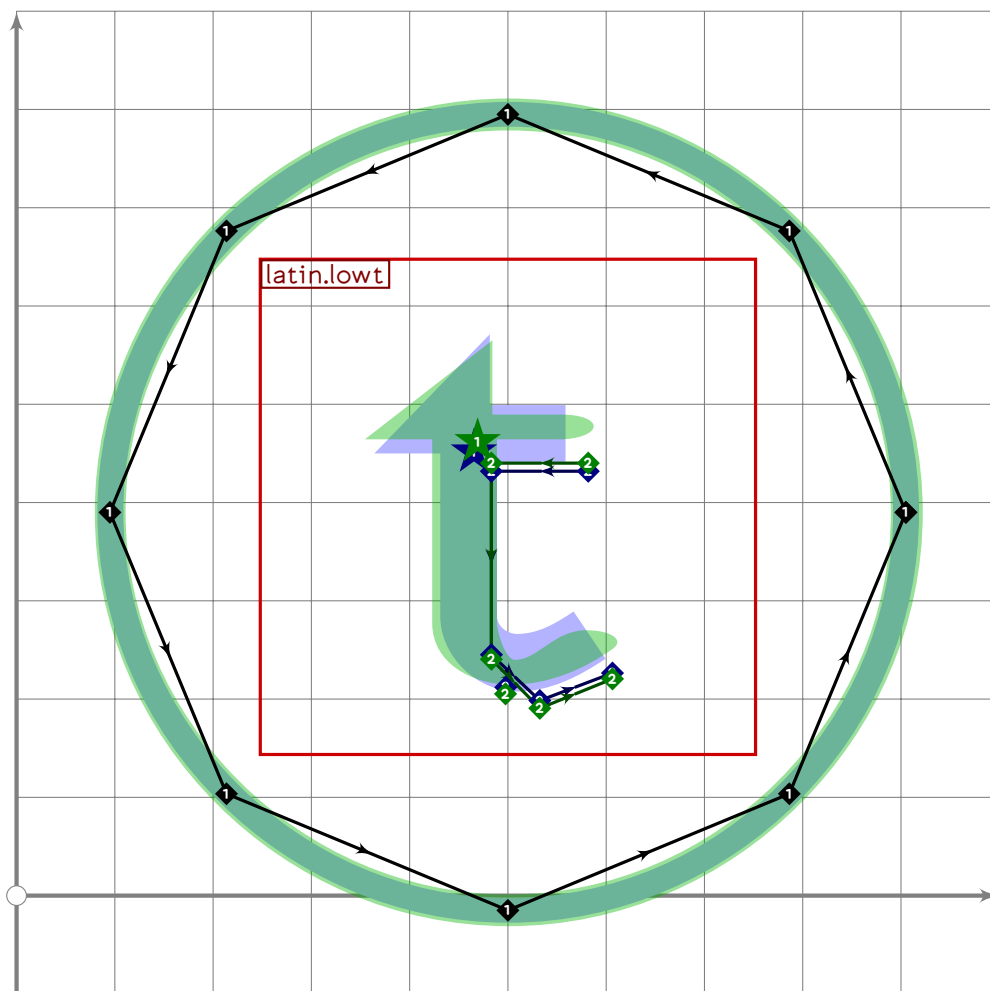
```

522 % s
523 begintsuglyph("uni24E2",226);
524   circle.single;
525   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lows);
526   tsu_render_in_circle(tsu_xf.cbound);
527 endtsuglyph;
528

```

U+24E3  
tsuku.uni24E3

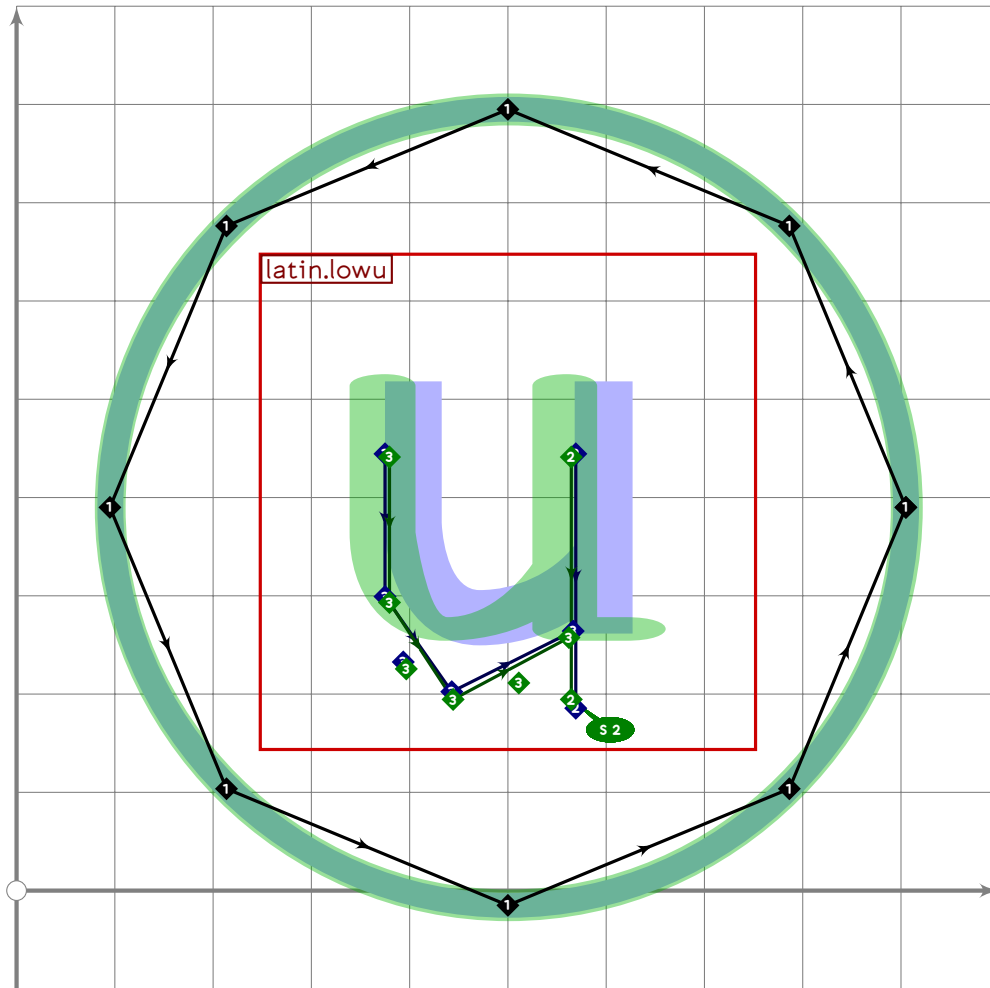
24



```

529 % t
530 begint Suglyph("uni24E3",227);
531   circle.single;
532   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowt);
533   tsu_render_in_circle(tsu_xf.cbound);
534 endtsuglyph;
535

```



```

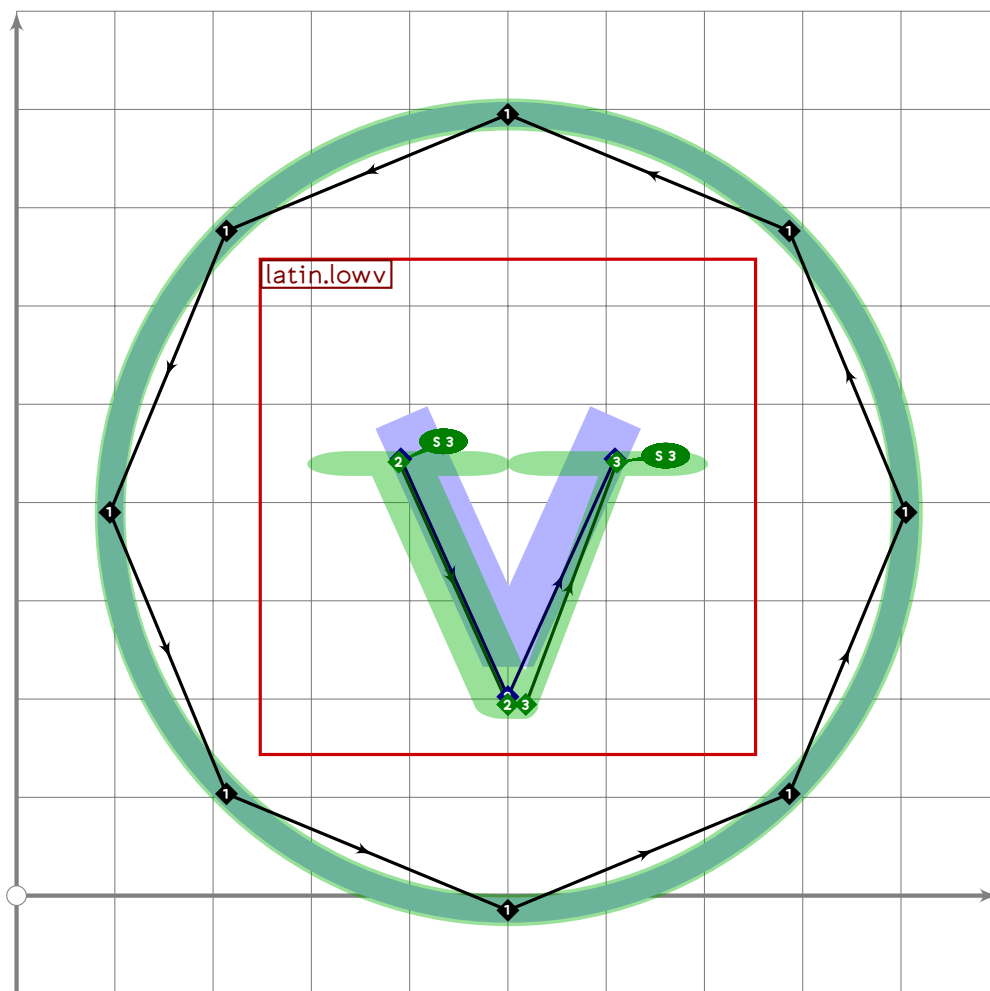
536 % u
537 begintsuglyph("uni24E4";228);
538   circle.single;
539   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowu);
540   tsu_render_in_circle(tsu_xf.cbound);
541 endtsuglyph;
542

```



U+24E5  
tsuku.uni24E5

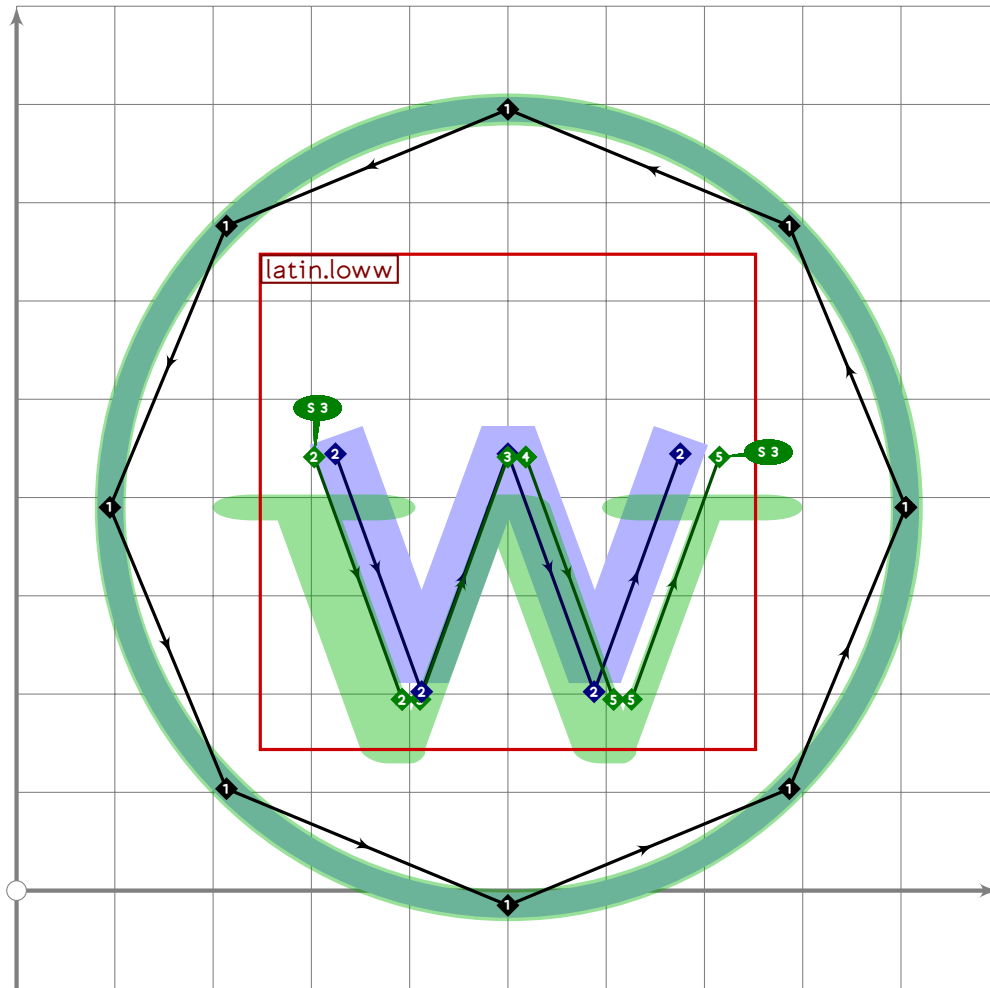
24



```

543 % v
544 begint Suglyph("uni24E5";229);
545   circle.single;
546   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowv);
547   tsu_render_in_circle(tsu_xf.cbound);
548 endtsuglyph;
549

```



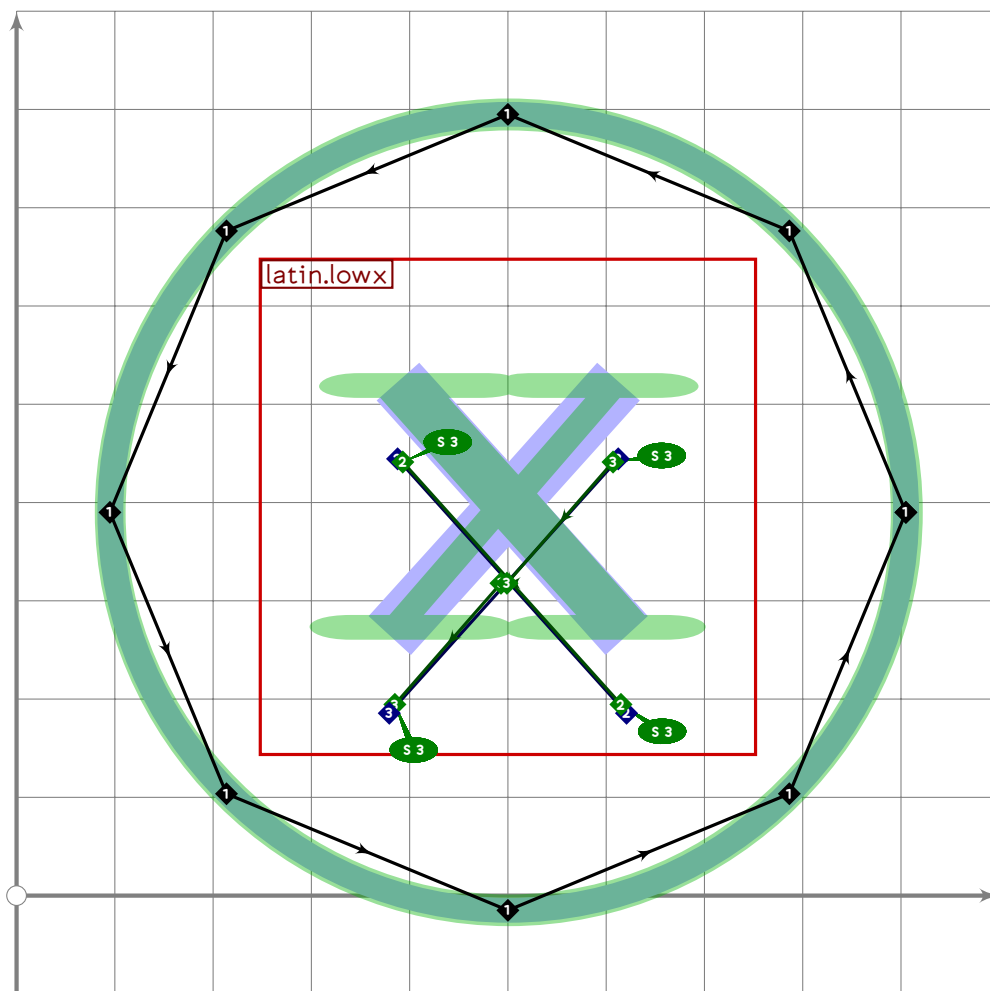
```

550 % w
551 begintsuglyph("uni24E6";230);
552   circle.single;
553   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.loww);
554   tsu_render_in_circle(tsu_xf.cbound);
555 endtsuglyph;
556

```

U+24E7  
tsuku.uni24E7

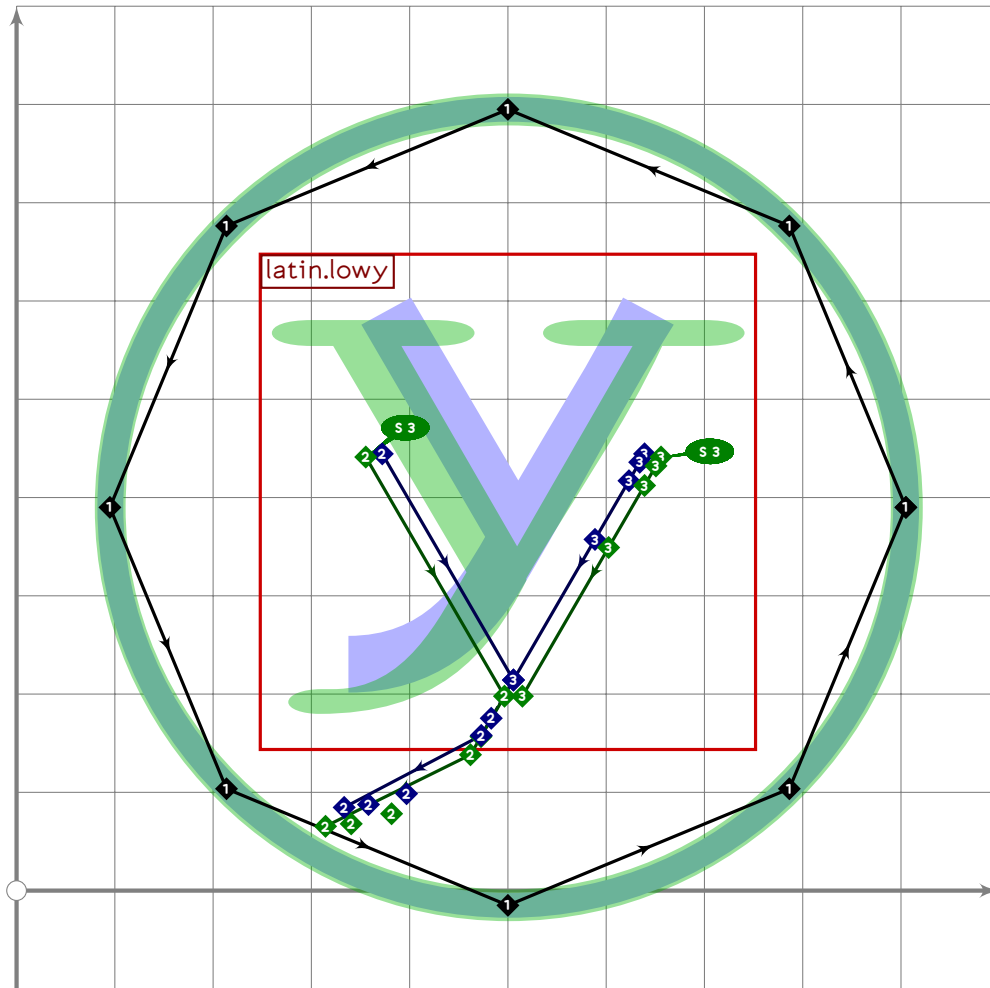
24



```

557 % x
558 begintsuglyph("uni24E7";231);
559   circle.single;
560   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowx);
561   tsu_render_in_circle(tsu_xf.cbound);
562 endtsuglyph;
563

```



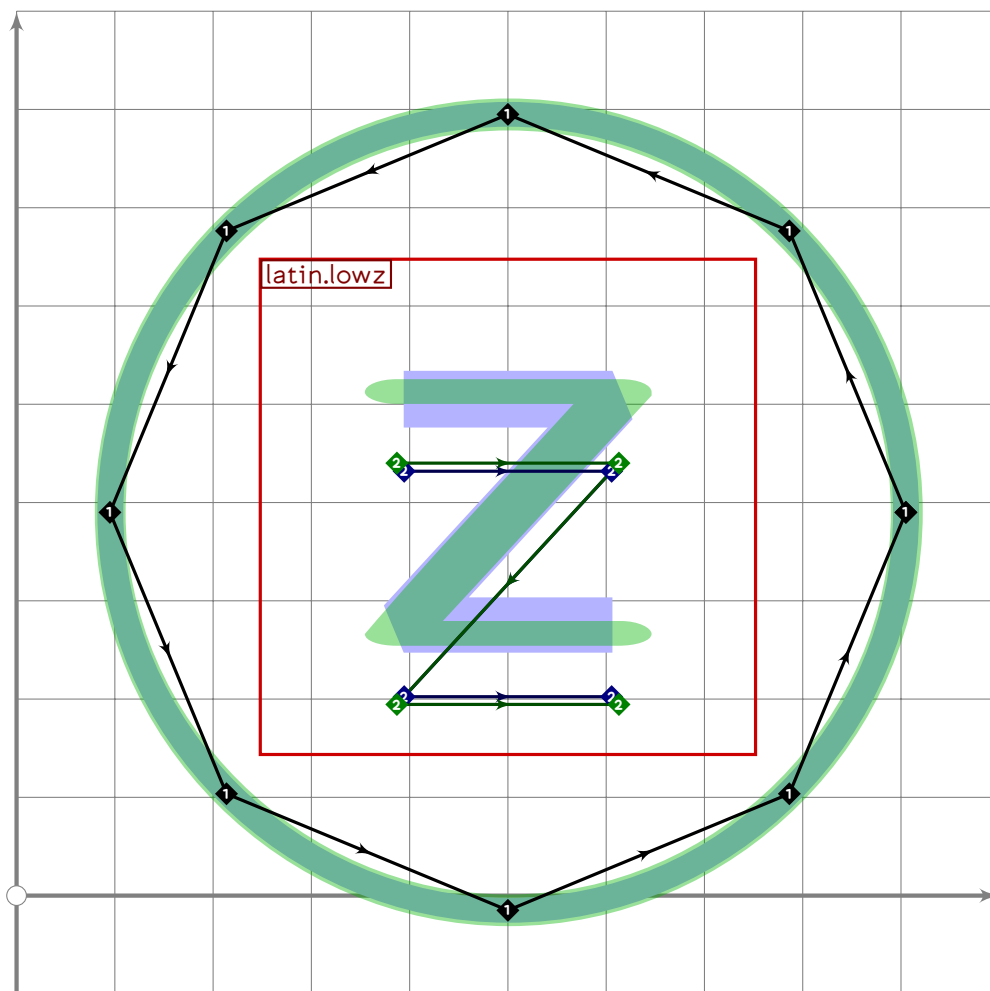
```

564 % y
565 begint Suglyph("uni24E8",232);
566   circle.single;
567   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowy);
568   tsu_render_in_circle(tsu_xf.cbound);
569 endtsuglyph;
570

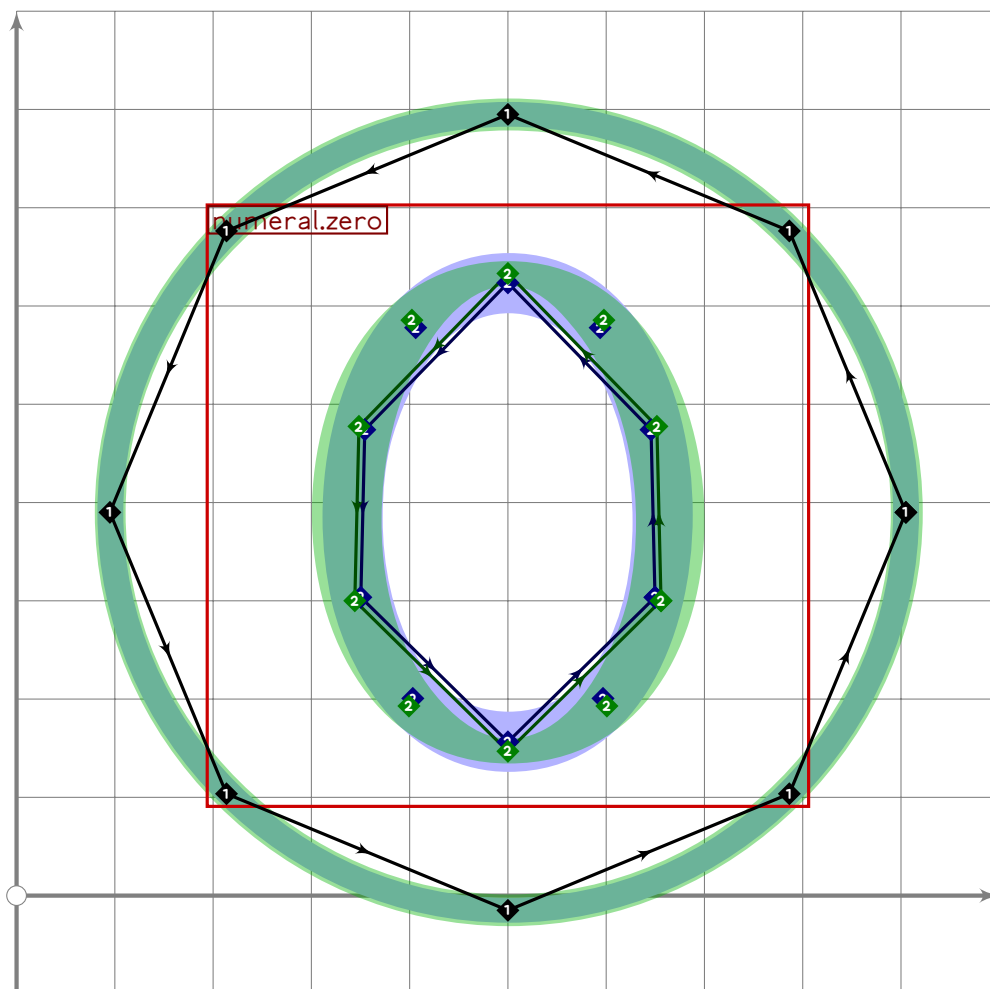
```

U+24E9  
tsuku.uni24E9

24



```
571 % z
572 beginsuglyph("uni24E9";233);
573   circle.single;
574   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowz);
575   tsu_render_in_circle(tsu_xf.cbound);
576 endtsuglyph;
577
```



```

578 % 0
579 begintsuglyph("uni24EA";234);
580   circle.single;
581   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.zero);
582   tsu_render;
583 endsuglyph;
584
585
586
```

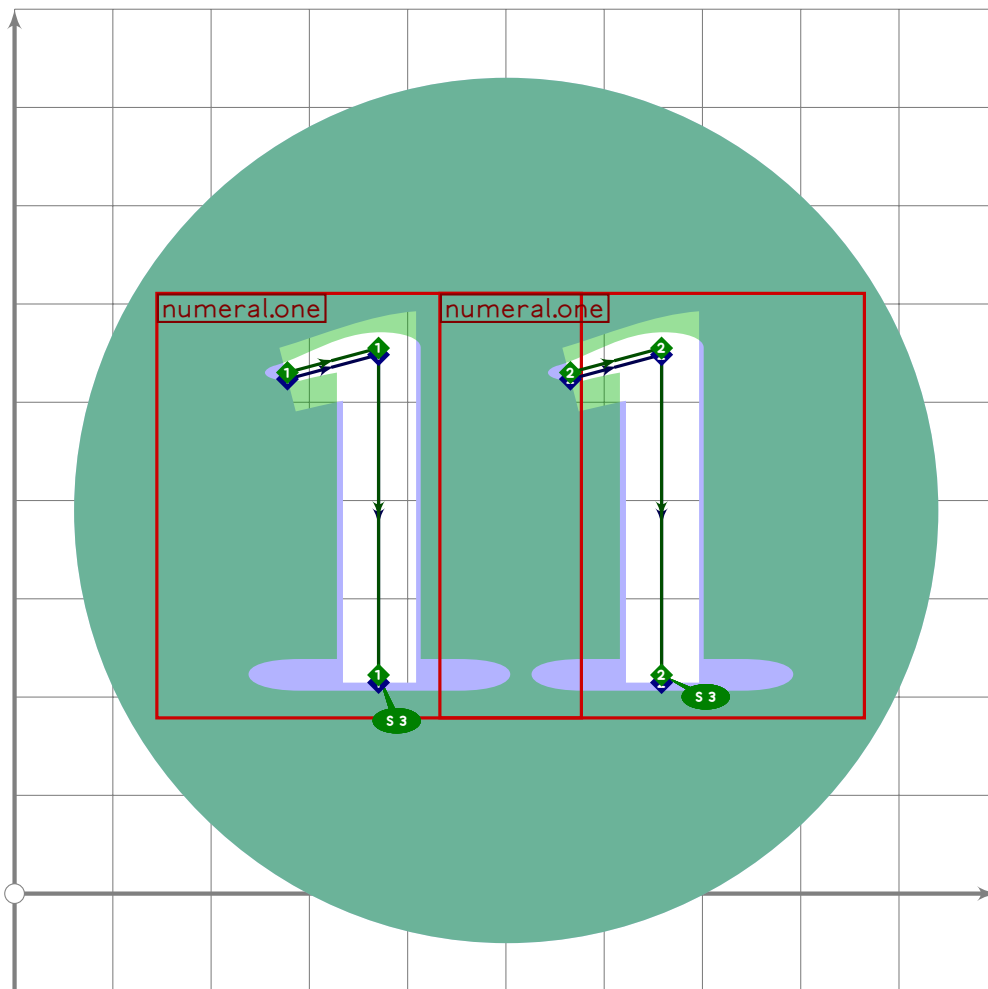
## Inverted Circled Numerals

```

587 % INVERTED CIRCLED NUMERALS
588
```

U+24EB  
tsuku.uni24EB

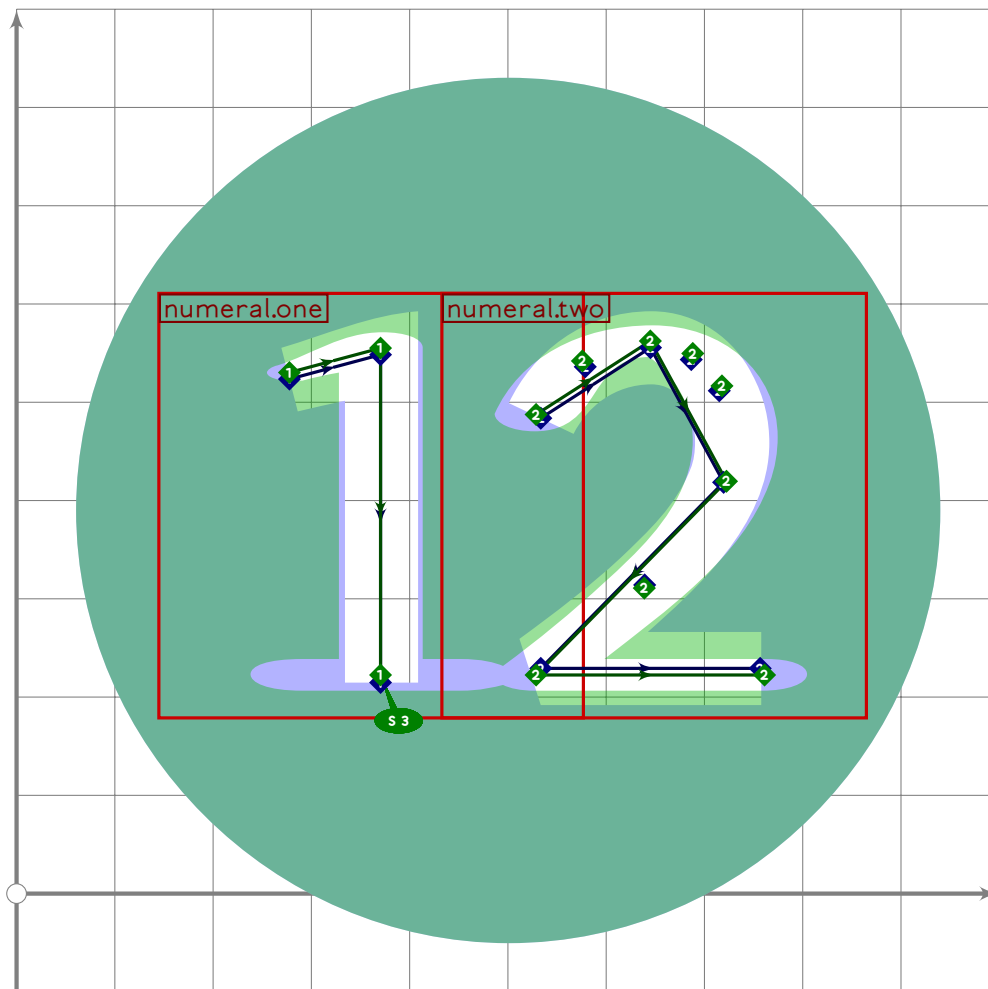
24



```

589 % 11
590 % BACKGROUND 25CF
591 begint Suglyph("uni24EB";235);
592   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
593   numeric x[],y[];
594   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.one);
595   i:=0; forever: exitif find_stroke(i)<1;
596     set_bosize(i,107); i:=i-1; endfor;
597   tsu_render;
598 endtsuglyph;
599

```



```

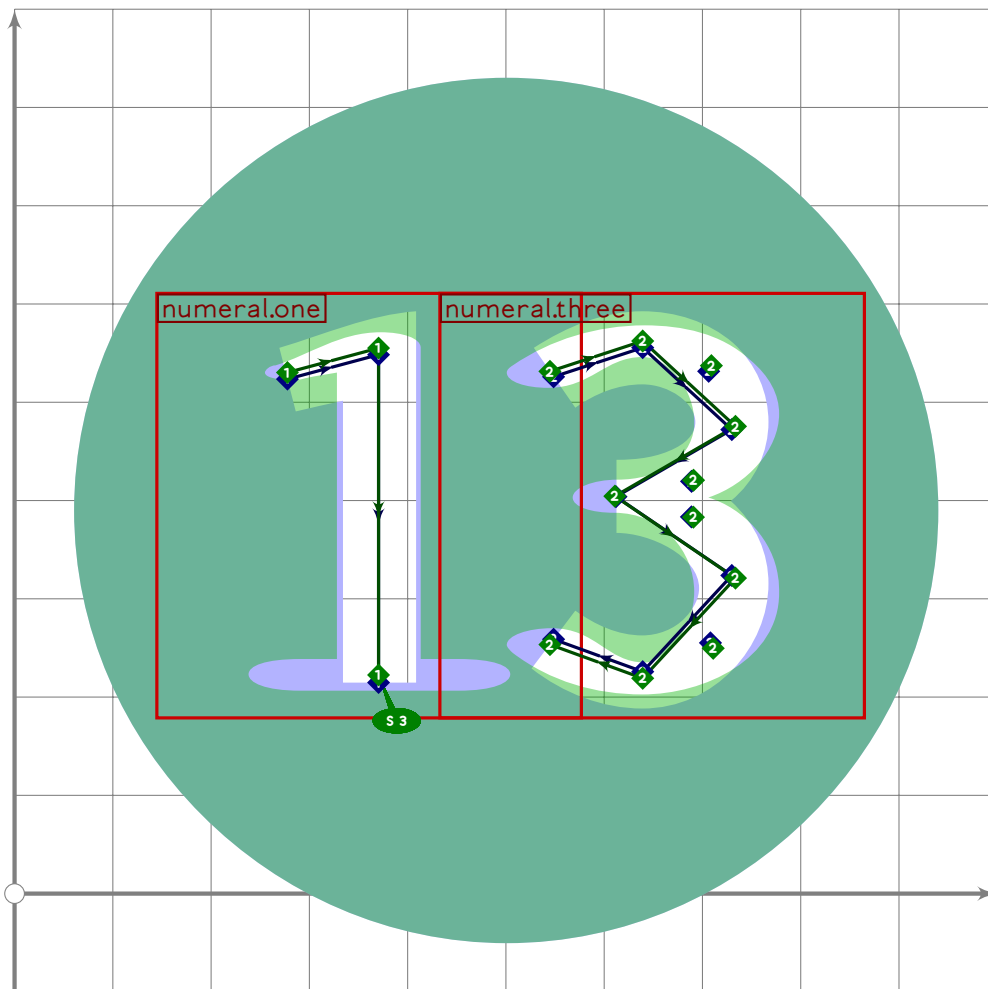
600 % 12
601 % BACKGROUND 25CF
602 begint Suglyph("uni24EC";236);
603   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
604   numeric x[],y[];
605   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.two);
606   i:=0; forever: exitif find_stroke(i)<1;
607     set_bosize(i,107); i:=i-1; endfor;
608   tsu_render;
609 endtsuglyph;
610

```

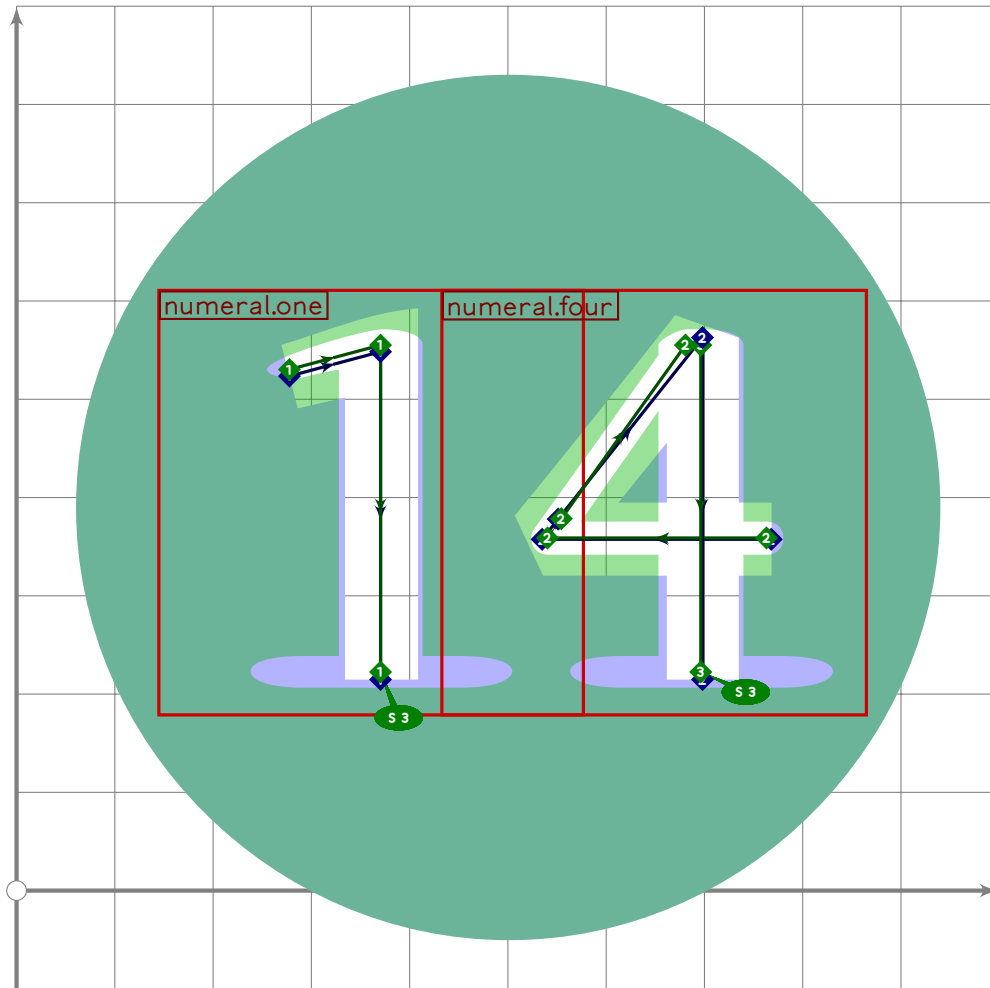


U+24ED  
tsuku.uni24ED

24



```
611 % 13
612 % BACKGROUND 25CF
613 begint Suglyph("uni24ED";237);
614   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
615   numeric x[],y[];
616   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.three);
617   i:=0; forever: exitif find_stroke(i)<1;
618     set_bosize(i,107); i:=i+1; endfor;
619   tsu_render;
620 endtsuglyph;
621
```



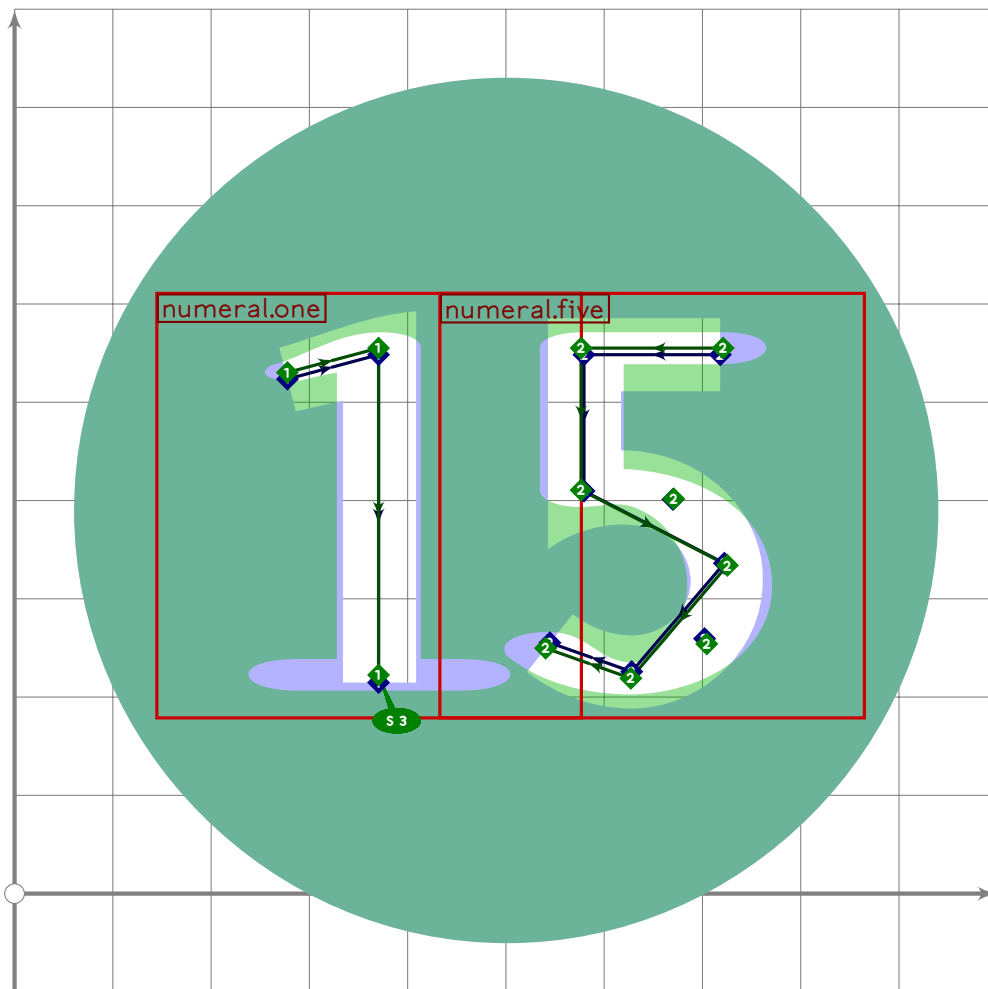
```

622 % 14
623 % BACKGROUND 25CF
624 begint Suglyph("uni24EE",238);
625   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
626   numeric x[],y[];
627   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.four);
628   i:=0; forever: exitif find_stroke(i)<1;
629     set_bosize(i,107); i:=i-1; endfor;
630   tsu_render;
631 endtsuglyph;
632

```

U+24EF  
tsuku.uni24EF

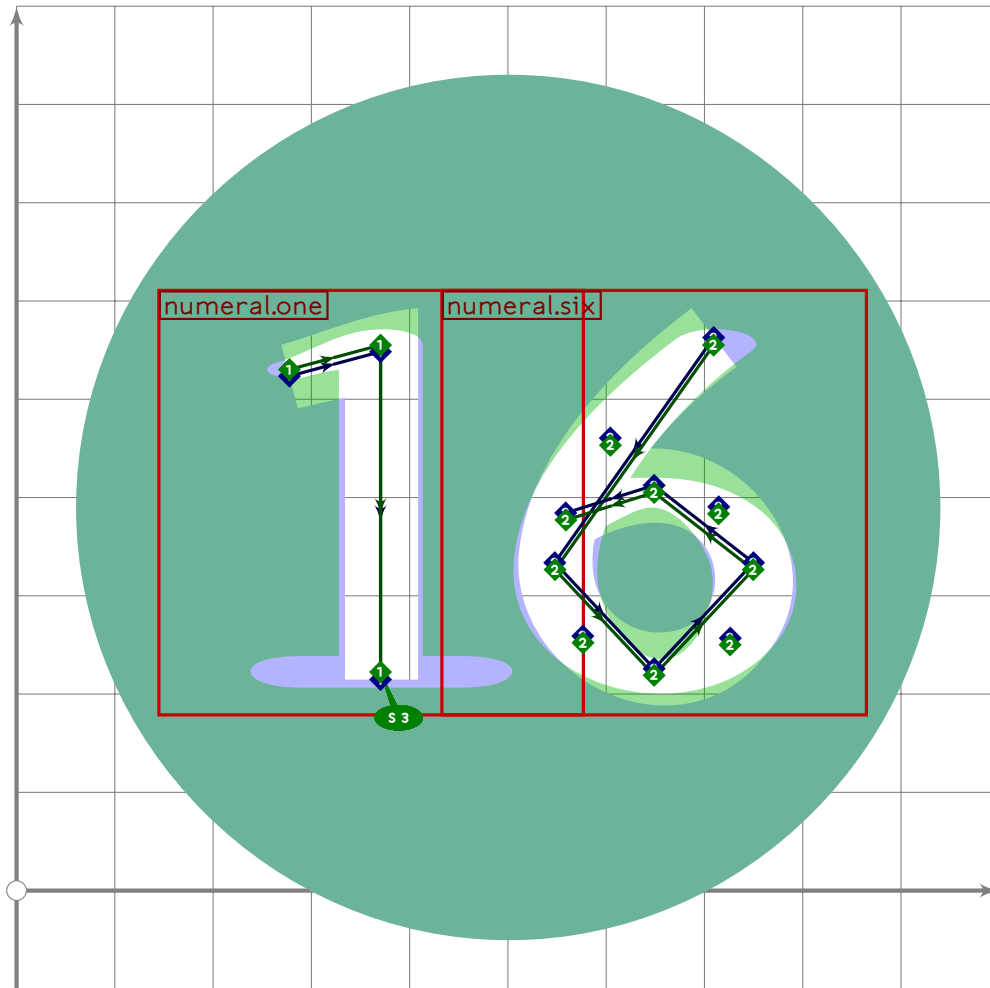
24



```

633 % 15
634 % BACKGROUND 25CF
635 begint Suglyph("uni24EF",239);
636   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
637   numeric x[],y[];
638   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.five);
639   i:=0; forever: exitif find_stroke(i)<1;
640     set_bosize(i,107); i:=i+1; endfor;
641   tsu_render;
642 endtsuglyph;
643

```



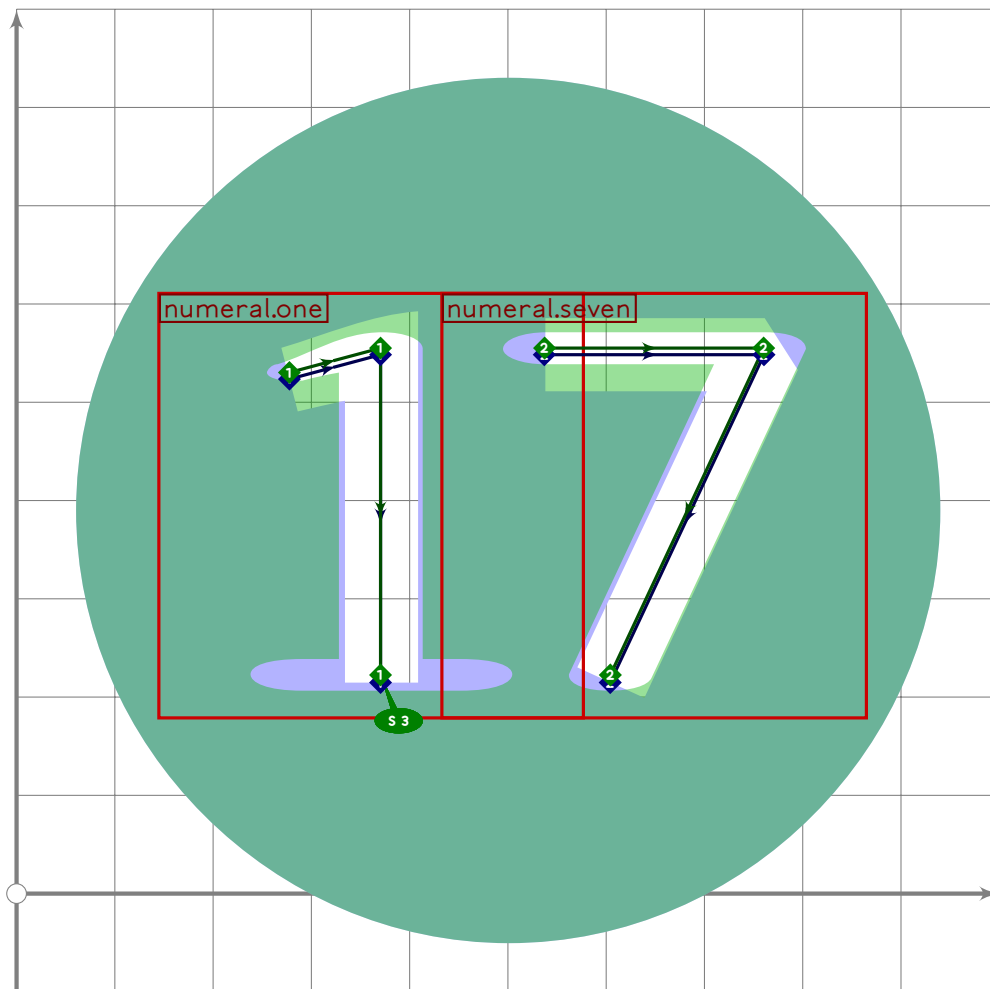
```

644 % 16
645 % BACKGROUND 25CF
646 begint Suglyph("uni24F0",240);
647   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
648   numeric x[],y[];
649   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.six);
650   i:=0; forever: exitif find_stroke(i)<1;
651     set_bosize(i,107); i:=i-1; endfor;
652   tsu_render;
653 endtsuglyph;
654

```

U+24F1  
tsuku.uni24F1

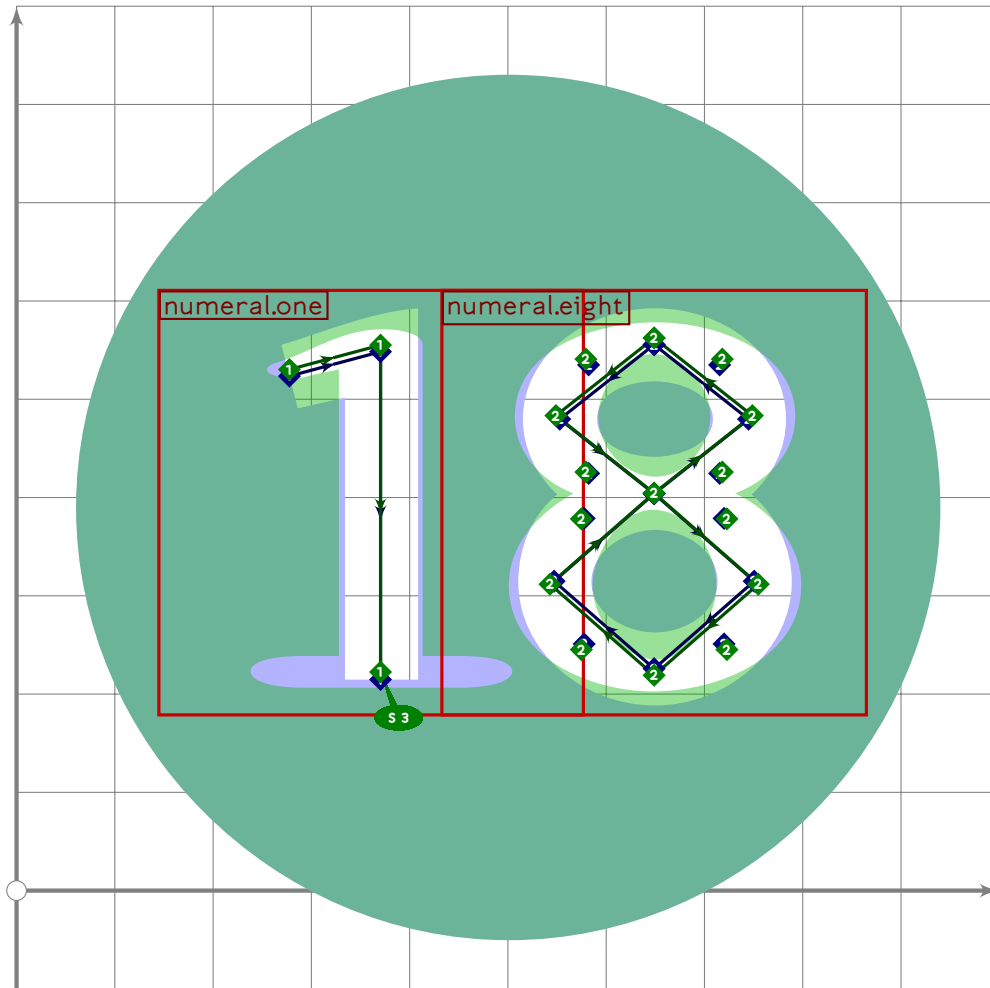
24



```

655 % 17
656 % BACKGROUND 25CF
657 begint Suglyph('uni24F1';241);
658   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
659   numeric x[],y[];
660   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.seven);
661   i:=0; forever: exitif find_stroke(i)<1;
662     set_bosize(i,107); i:=i+1; endfor;
663   tsu_render;
664 endtsuglyph;
665

```



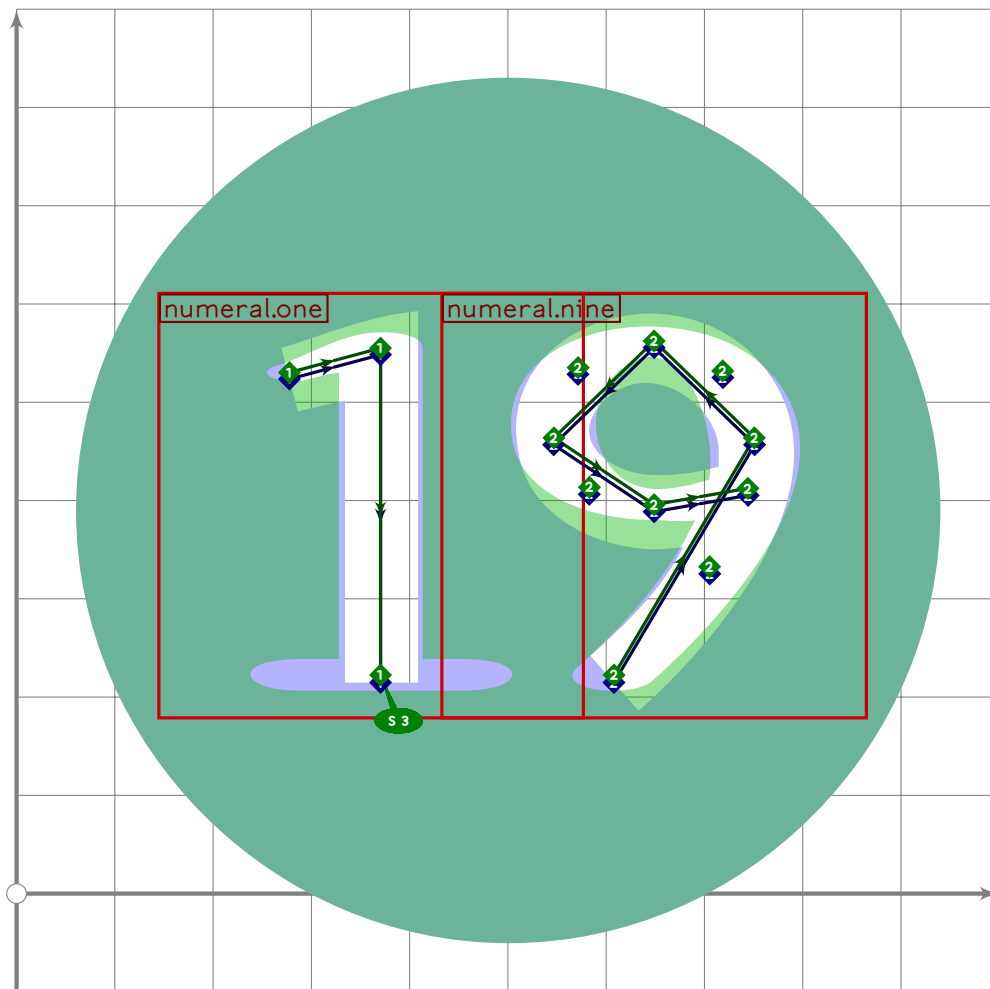
```

666 % 18
667 % BACKGROUND 25CF
668 begint Suglyph("uni24F2",242);
669   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
670   numeric x[],y[];
671   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.eight);
672   i:=0; forever: exitif find_stroke(i)<1;
673     set_bosize(i,107); i:=i-1; endfor;
674   tsu_render;
675 endtsuglyph;
676

```

U+24F3  
tsuku.uni24F3

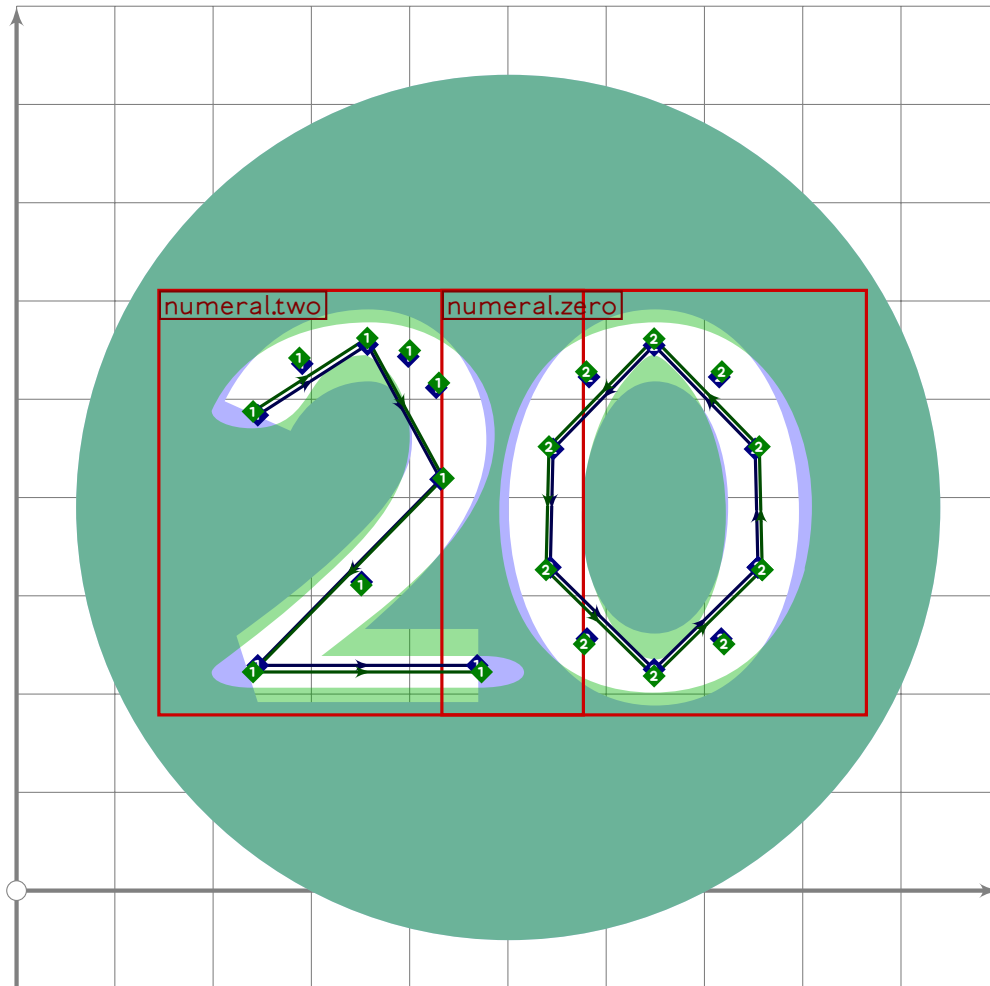
24



```

677 % 19
678 % BACKGROUND 25CF
679 begint Suglyph("uni24F3",243);
680   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
681   numeric x[],y[];
682   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.nine);
683   i:=0; forever: exitif find_stroke(i)<1;
684     set_bosize(i,107); i:=i+1; endfor;
685   tsu_render;
686 endtsuglyph;
687

```



```

688 % 20
689 % BACKGROUND 25CF
690 begintsuglyph("uni24F4";244);
691   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.two);
692   numeric x[],y[];
693   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
694   i:=0; forever: exitif find_stroke(i)<1;
695     set_bosize(i,107); i:=i+1; endfor;
696   tsu_render;
697 endtsuglyph;
698
699
700

```

## Doubly Circled Numerals

```

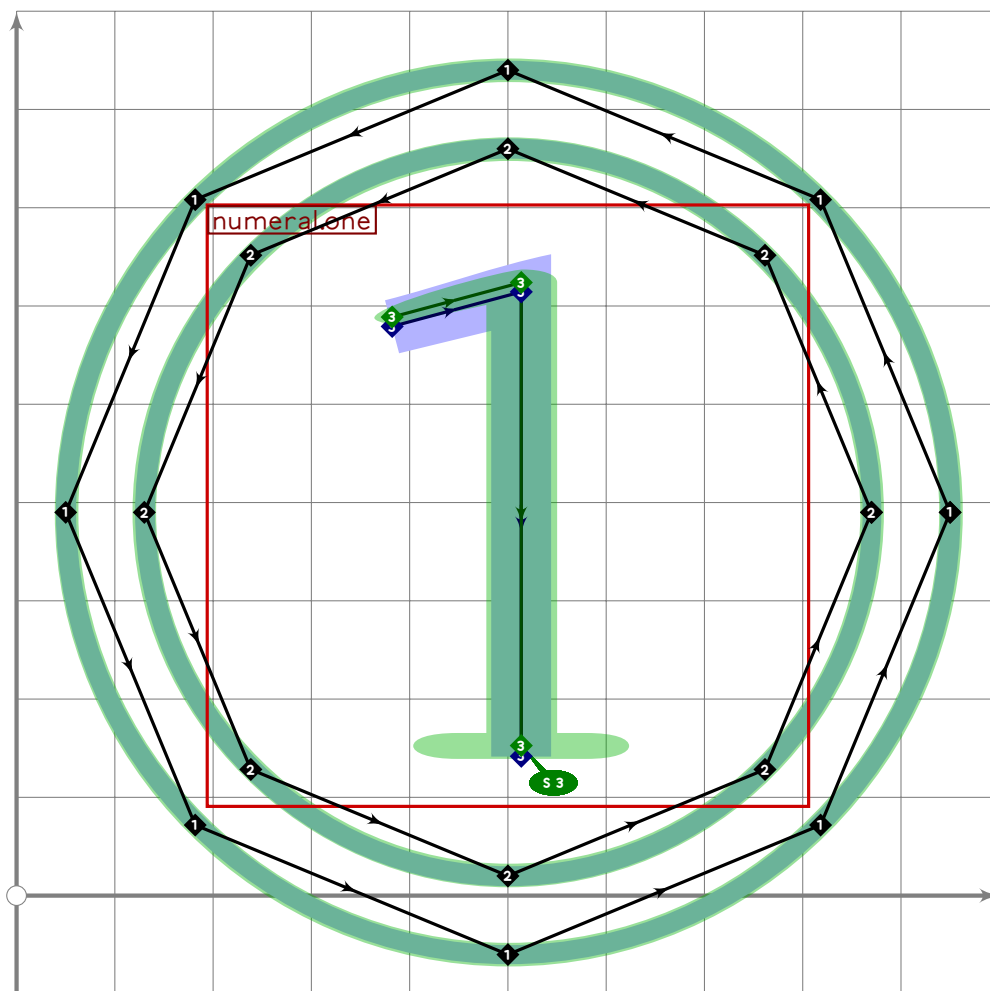
701 % DOUBLY CIRCLED NUMERALS
702

```



U+24F5  
tsuku.uni24F5

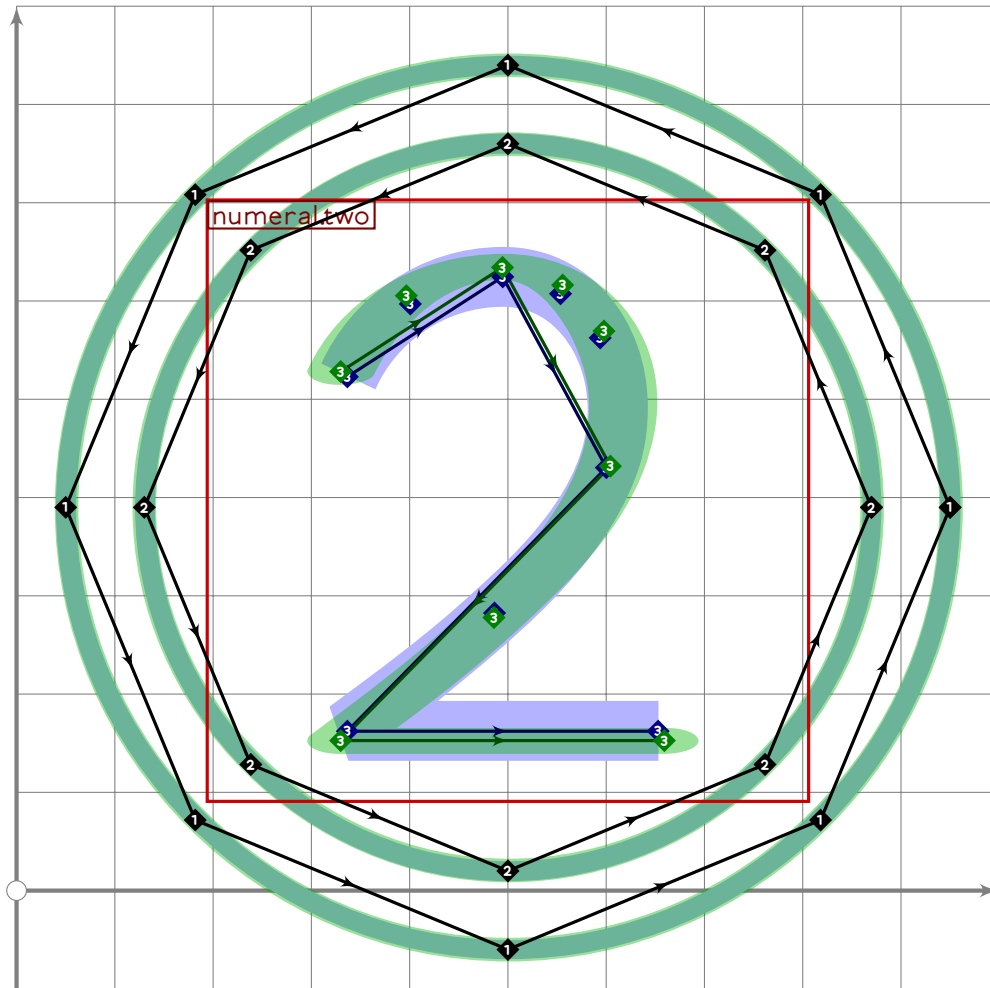
24



```

703 % 1
704 begintsuglyph("uni24F5";245);
705   circle.double;
706   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.one);
707   tsu_render;
708 endtsuglyph;
709

```



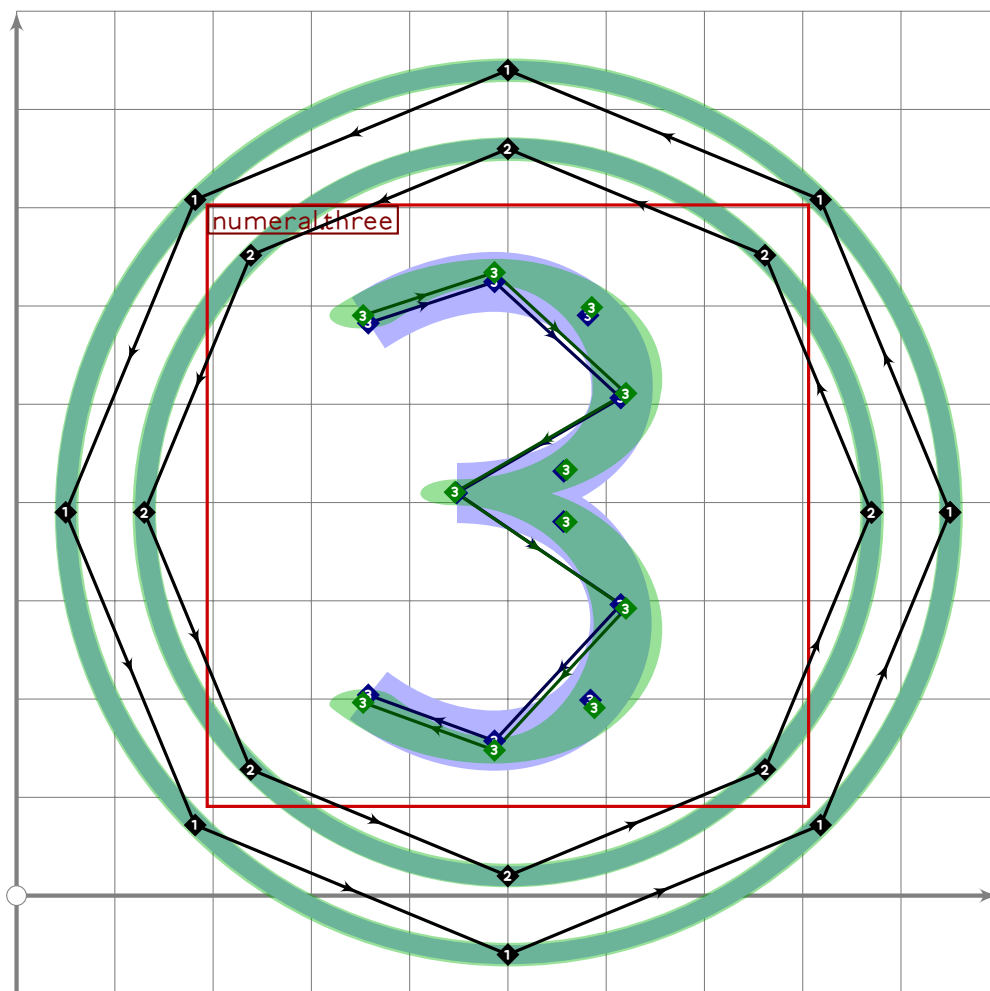
```

710 % 2
711 begintsuglyph("uni24F6";246);
712   circle.double;
713   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.two);
714   tsu_render;
715 endtsuglyph;
716

```

U+24F7  
tsuku.uni24F7

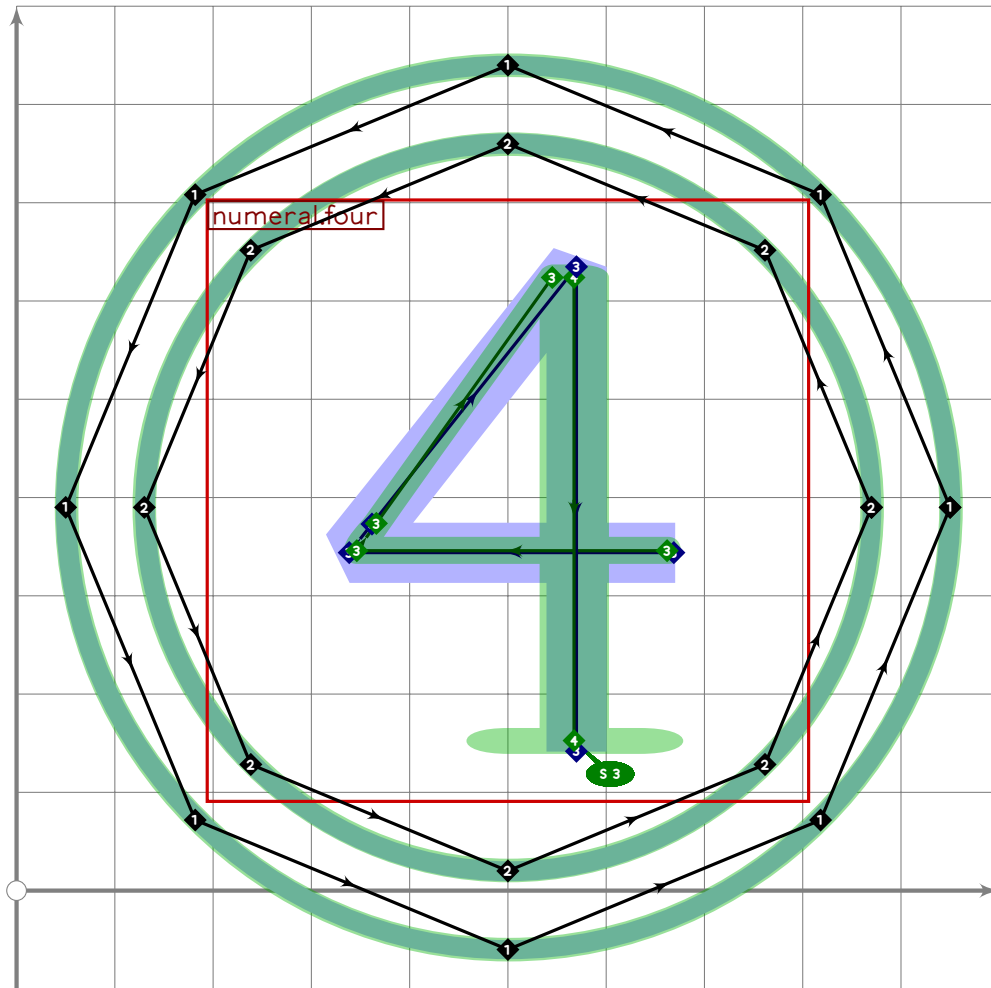
24



```

717 % 3
718 begintsuglyph("uni24F7";247);
719   circle.double;
720   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.three);
721   tsu_render;
722 endtsuglyph;
723

```



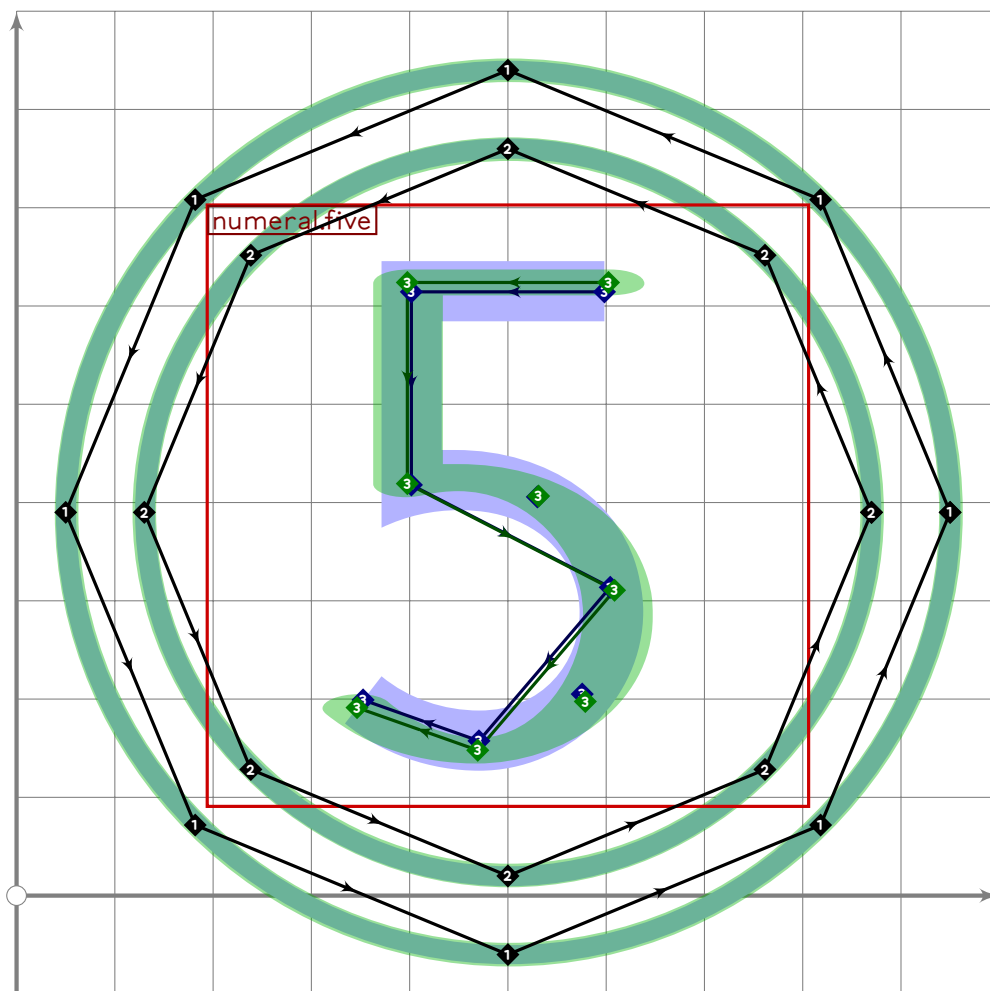
```

724 % 4
725 begintsuglyph("uni24F8",248);
726   circle.double;
727   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.four);
728   tsu_render;
729 endtsuglyph;
730

```

U+24F9  
tsuku.uni24F9

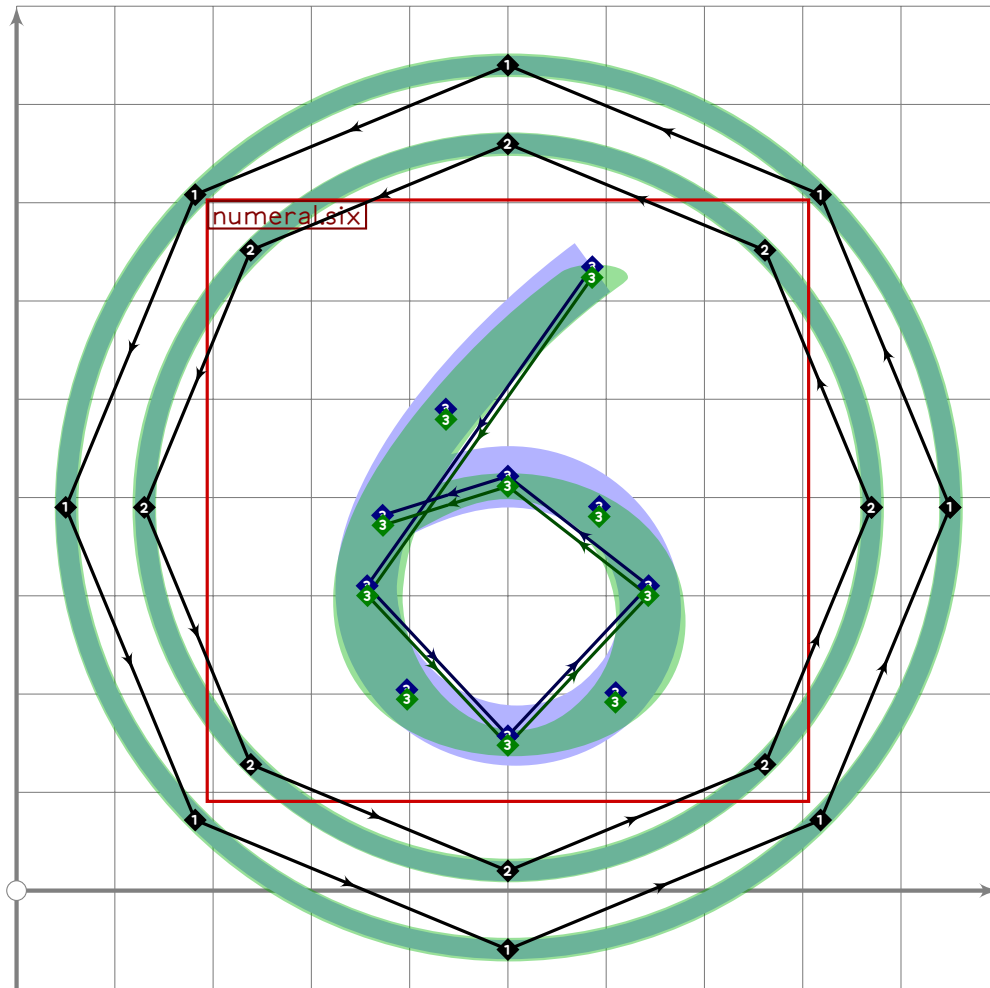
24



```

731 % 5
732 begintsuglyph("uni24F9";249);
733   circle.double;
734   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.five);
735   tsu_render;
736 endtsuglyph;
737

```



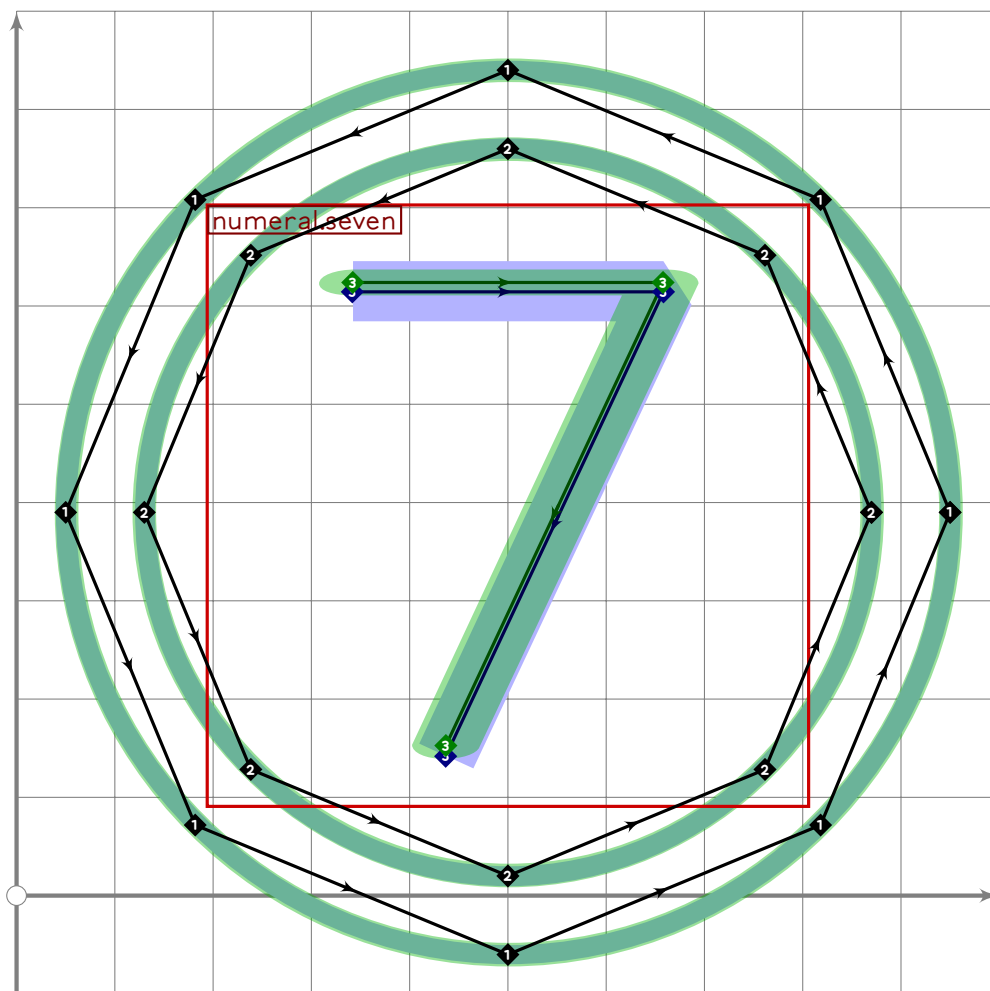
```

738 % 6
739 beginsuglyph("uni24FA";250);
740   circle.double;
741   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.six);
742   tsu_render;
743 endtsuglyph;
744

```

U+24FB  
tsuku.uni24FB

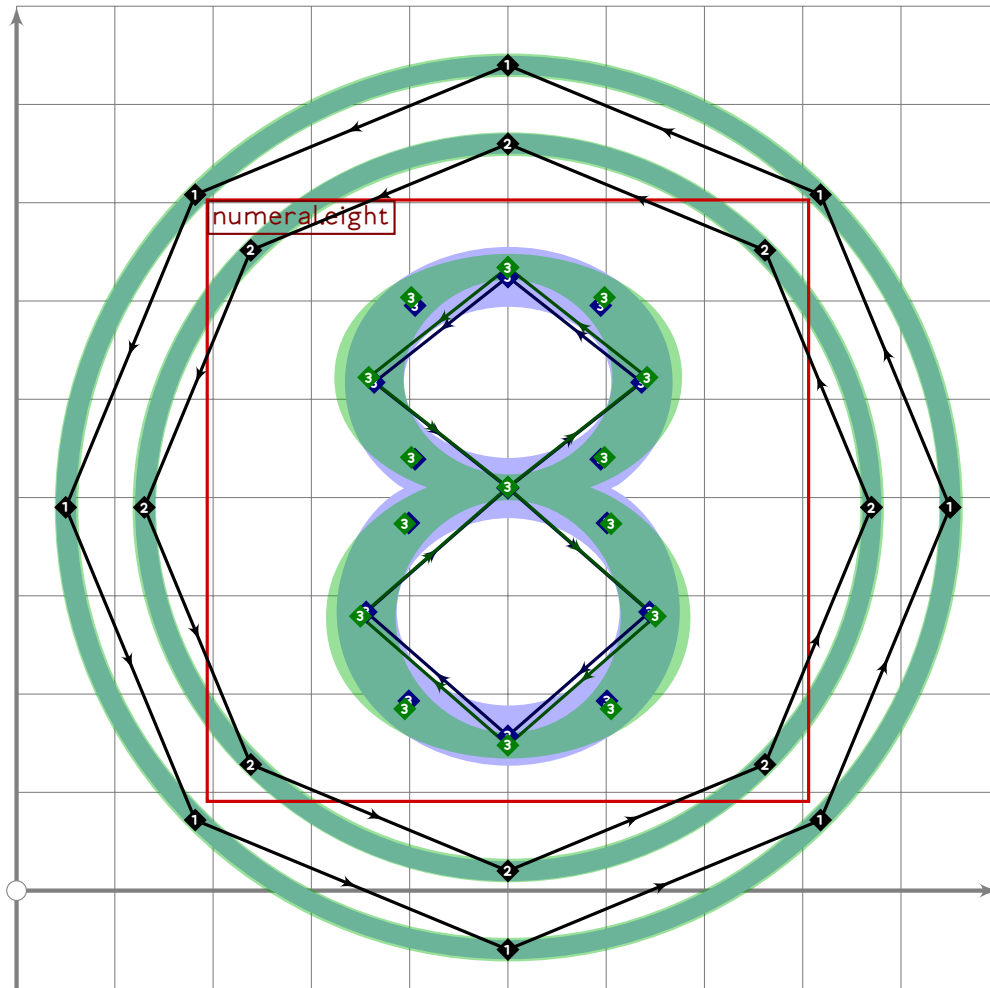
24



```

745 % 7
746 begintsuglyph("uni24FB";251);
747   circle.double;
748   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.seven);
749   tsu_render;
750 endtsuglyph;
751

```



```

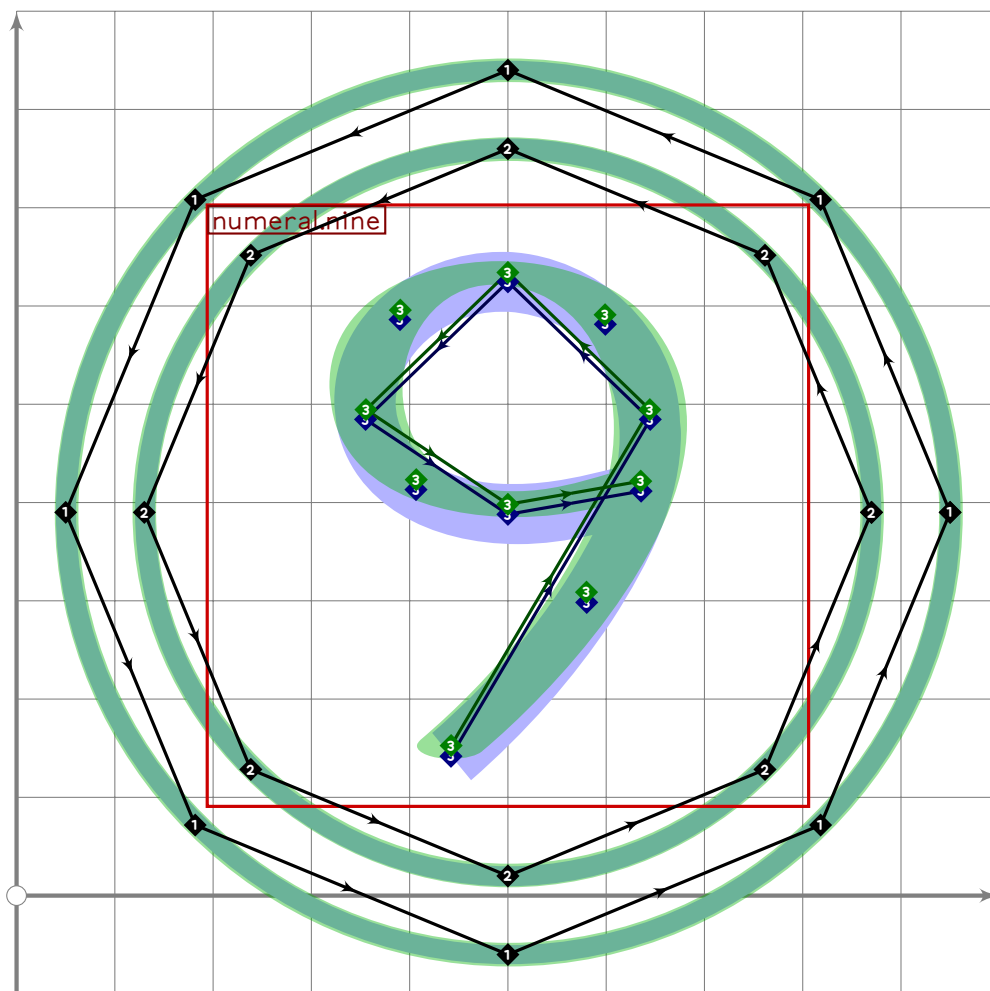
752 % 8
753 beginsuglyph("uni24FC",252);
754   circle.double;
755   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeraLeight);
756   tsu_render;
757 endtsuglyph;
758

```



U+24FD  
tsuku.uni24FD

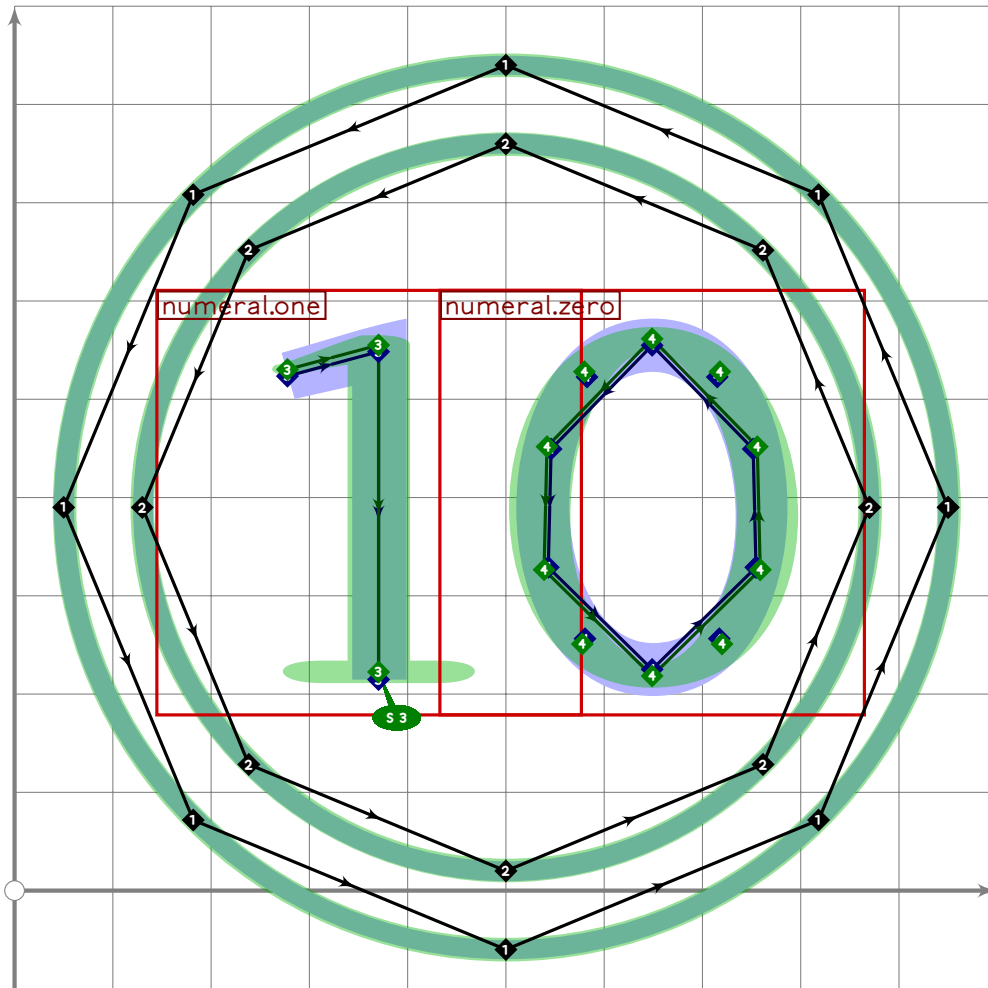
24



```

759 % 9
760 begintsuglyph("uni24FD",253);
761   circle.double;
762   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.nine);
763   tsu_render;
764 endtsuglyph;
765

```



```

766 % 10
767 begintuglyph("uni24FE",254);
768   circle.double;
769   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
770   numeric x[],y[];
771   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
772   tsu_render;
773 endtuglyph;
774
775
776

```

## One More Inverted Circled Numeral

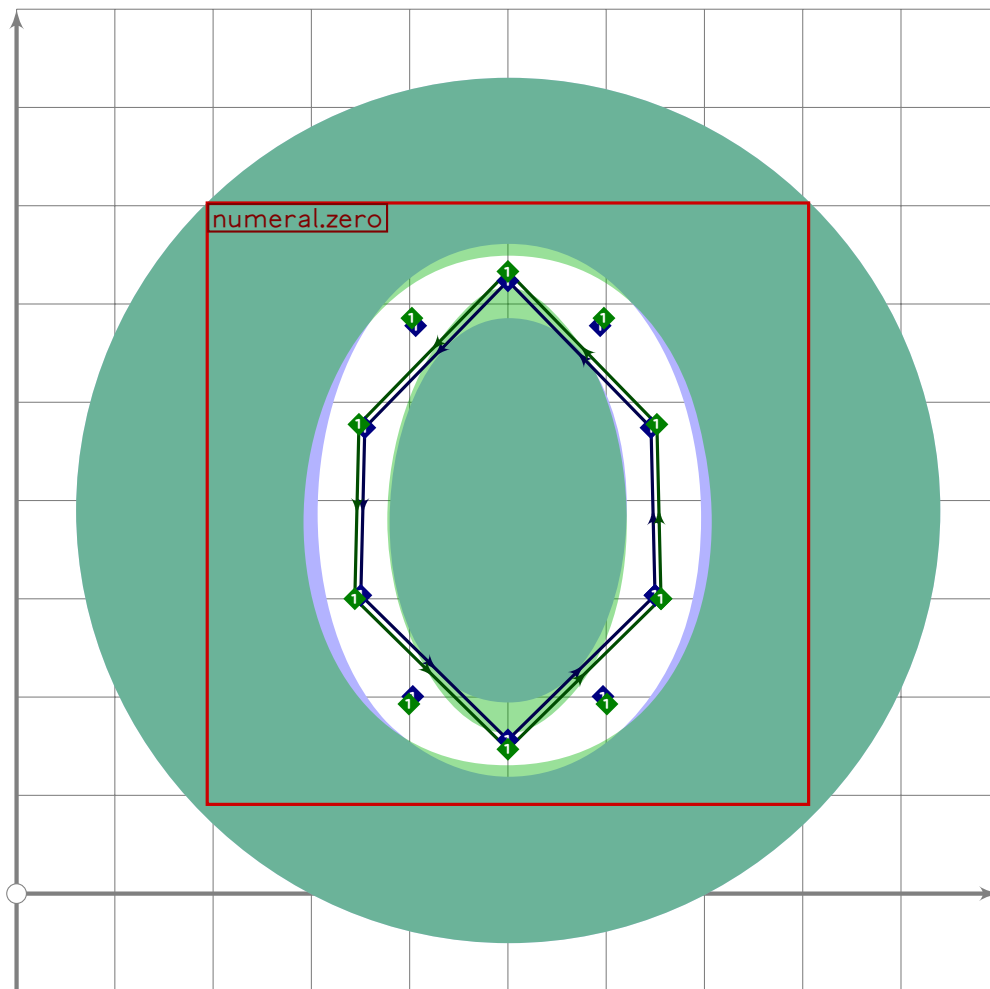
```

777 % ONE MORE INVERTED CIRCLED NUMERAL
778

```

U+24FF  
tsuku.uni24FF

24



```
779 % 9
780 % BACKGROUND 25CF
781 begintuglyph("uni24FF",255);
782 tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.zero);
783 i:=0; forever: exitif find_stroke(i)<1;
784   set_bosize(i,107); i:=i-1; endfor;
785 tsu_render;
786 endtuglyph;
787
788
789
790 endfont;
791
792
```

# 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
```

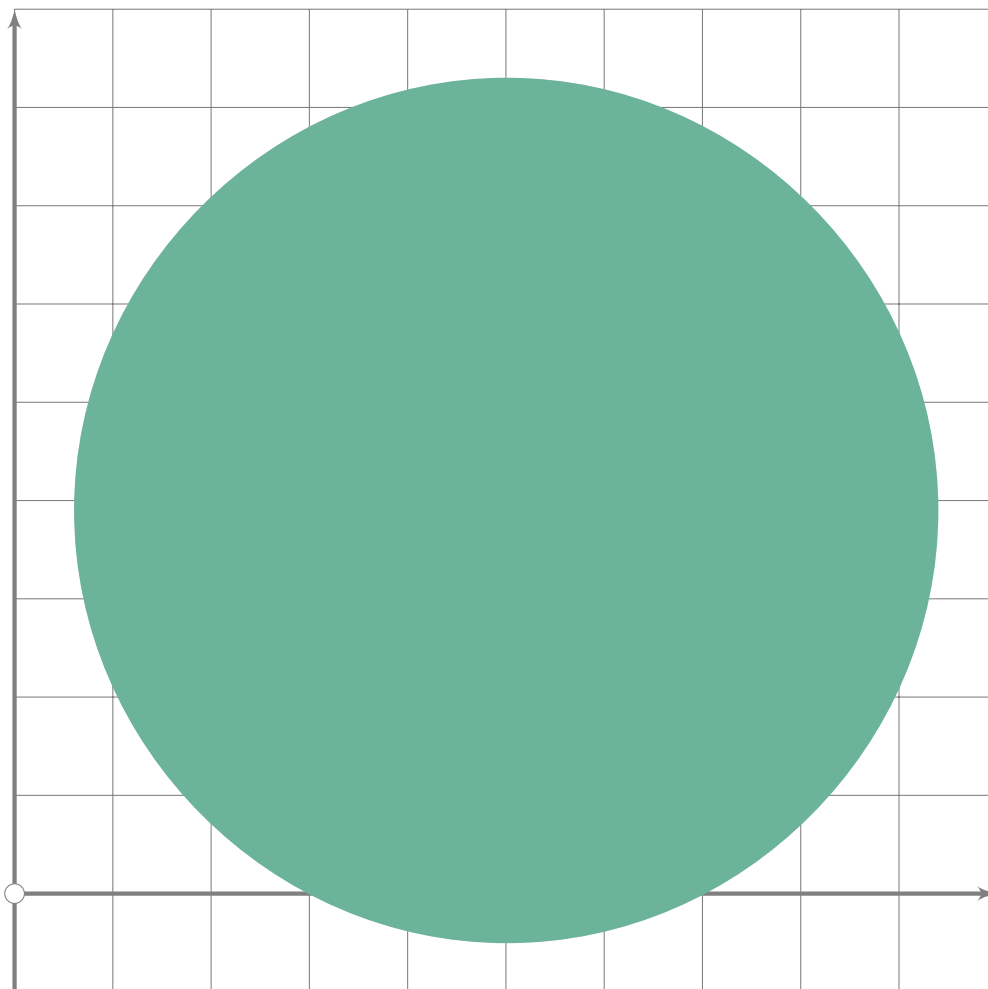
25

## 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 

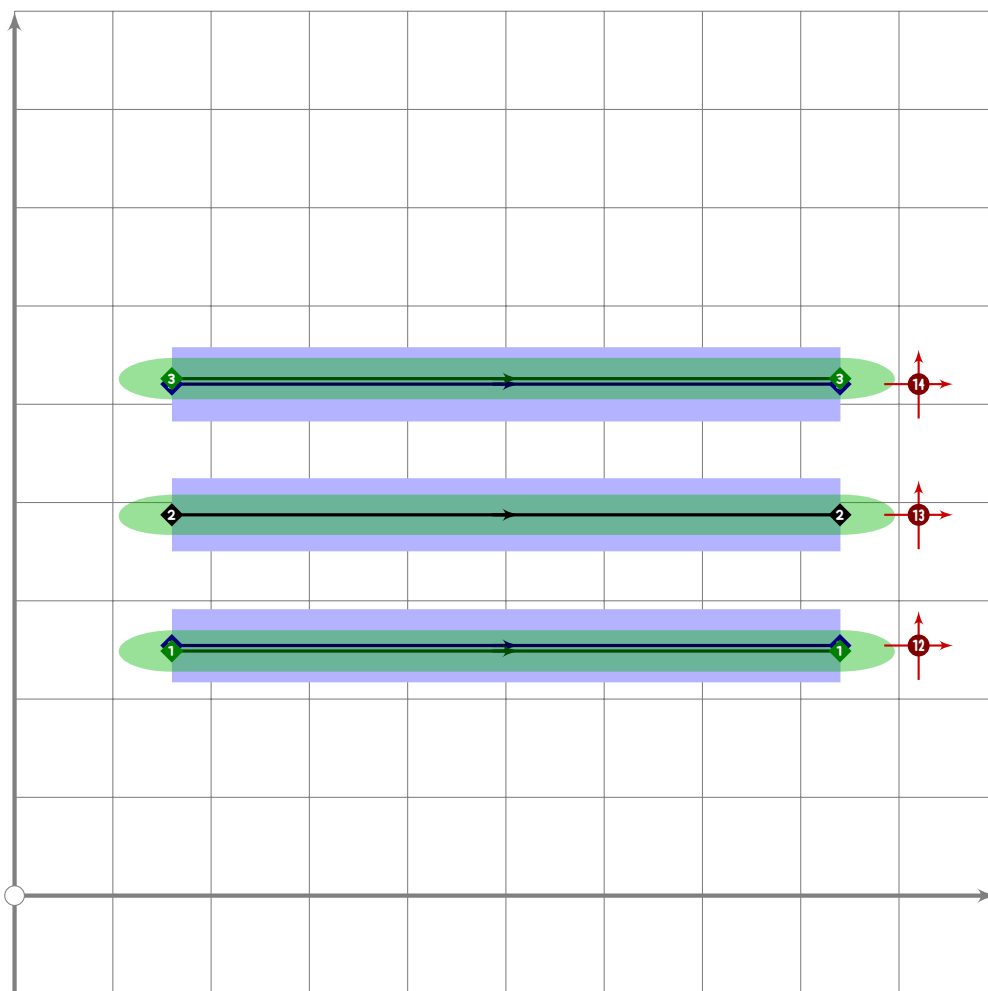
---


43
```

## I Ching

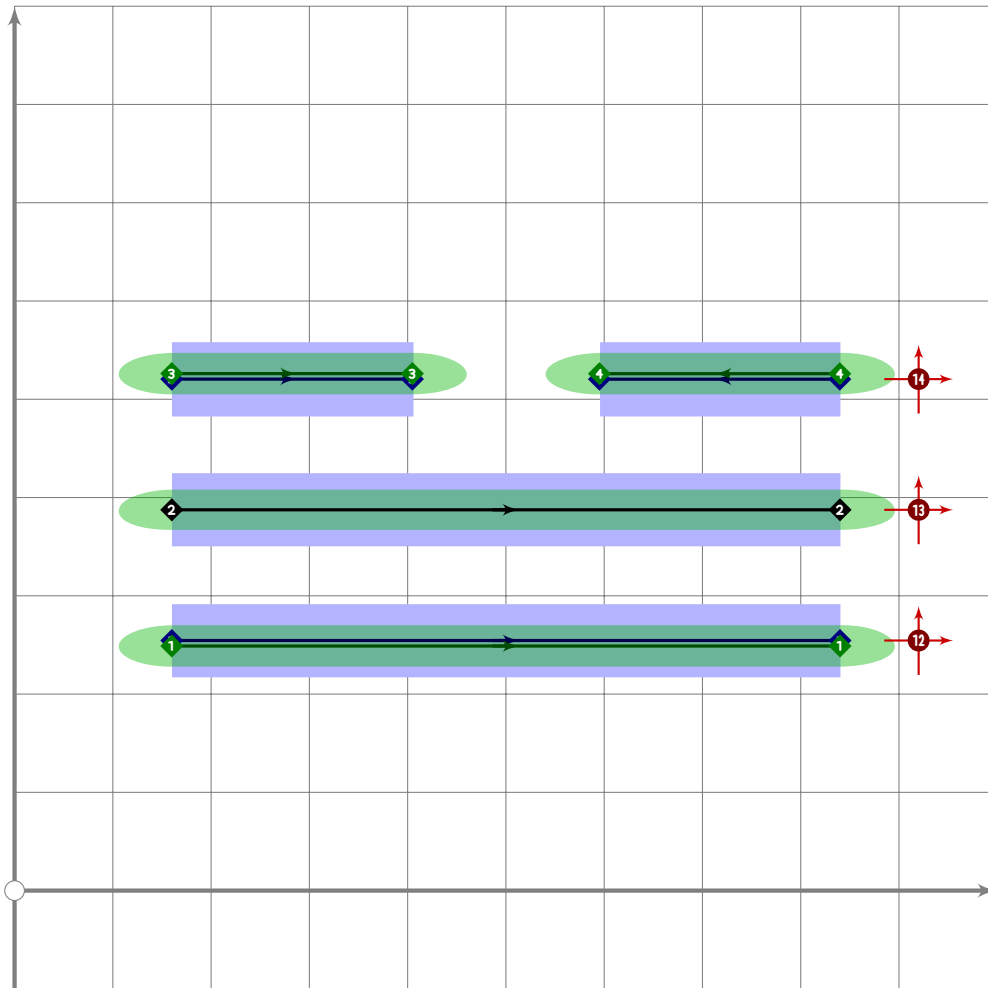
44 % I CHING

U+2630  
tsuku.ichingtri1



26

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



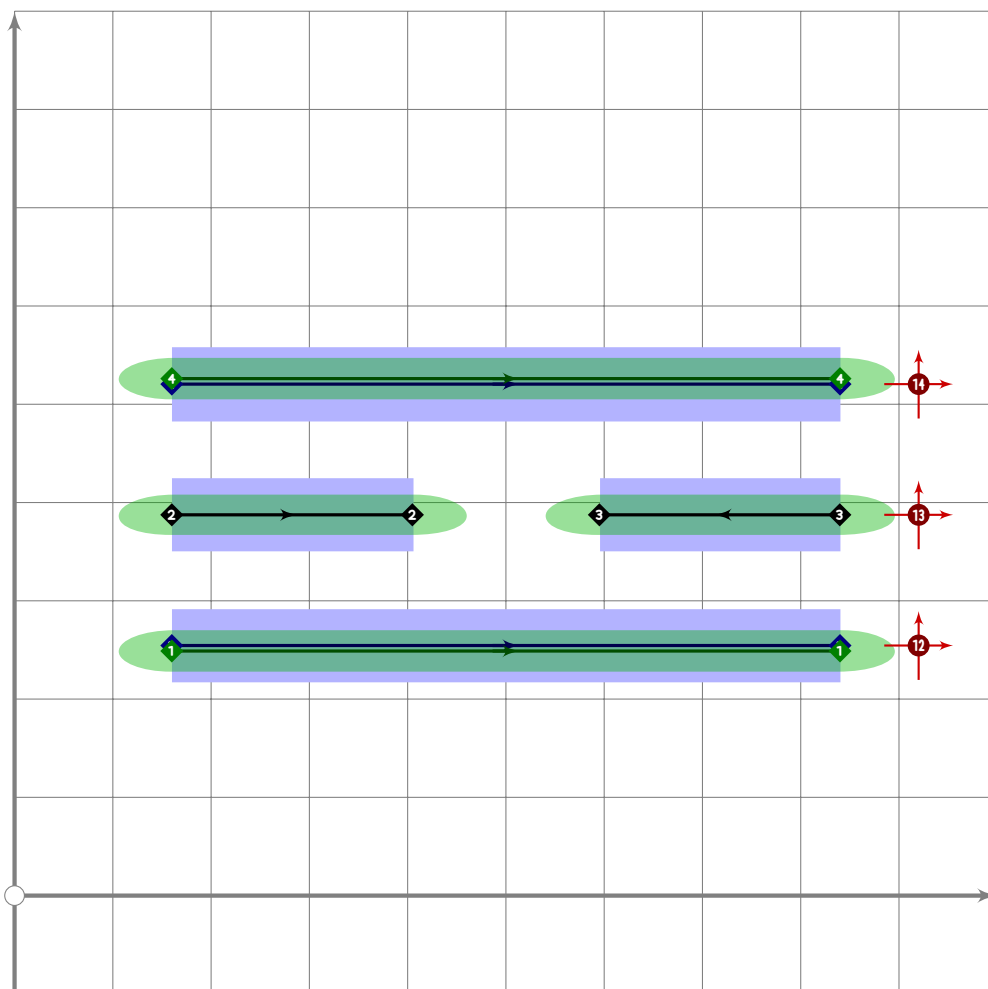
```

52
53 beginsuglyph("ichingtri2",49);
54   iching.line(1,3,1);
55   iching.line(2,3,1);
56   iching.line(3,3,0);
57   tsu_render;
58 endsuglyph;

```

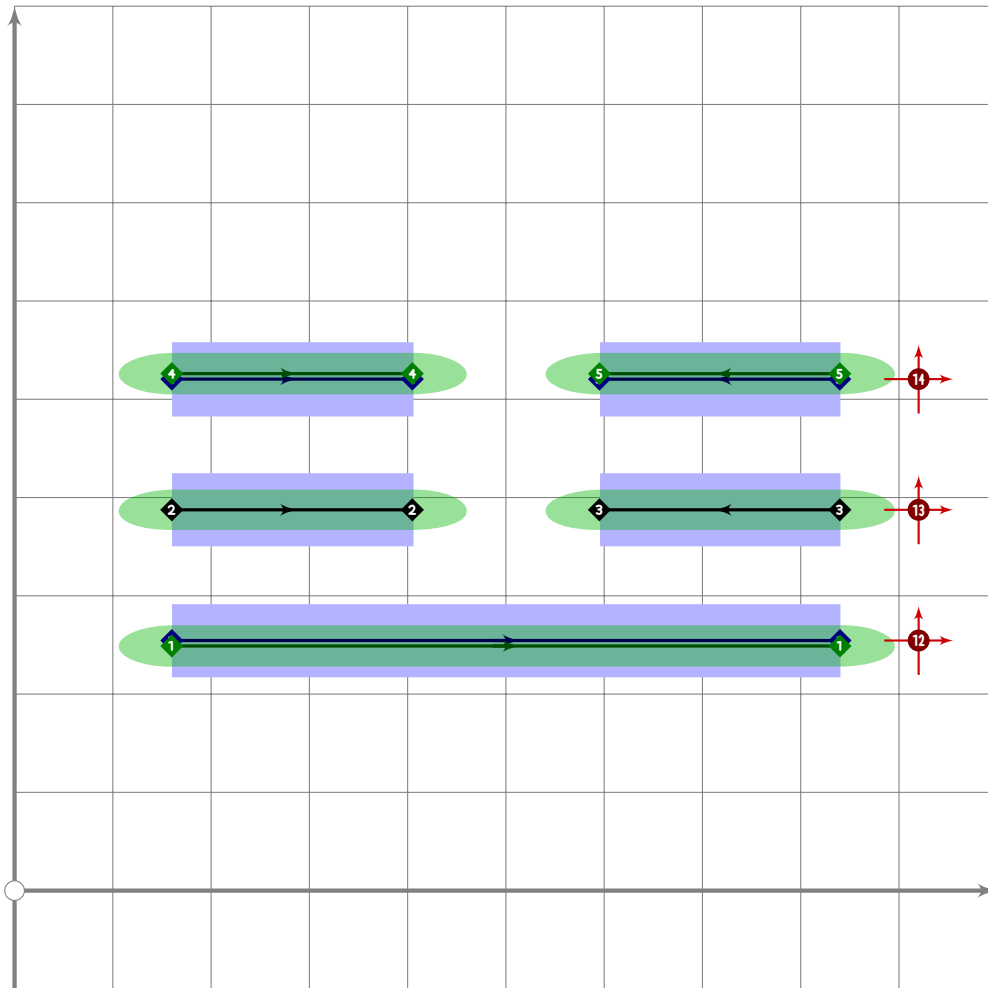


U+2632  
tsuku.ichingtri3



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;
```

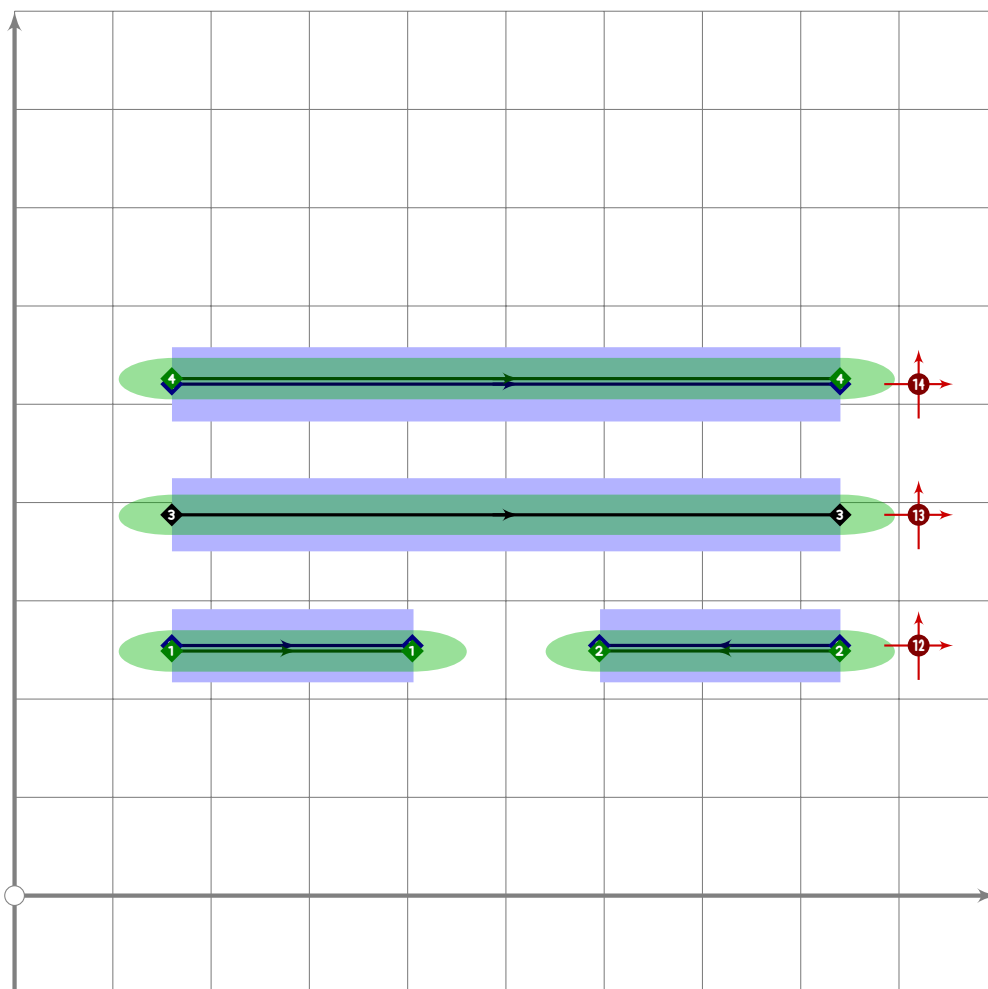


```

66
67 beginsuglyph("ichingtri4";51);
68   iching.line(1,3,1);
69   iching.line(2,3,0);
70   iching.line(3,3,0);
71   tsu_render;
72 endsuglyph;

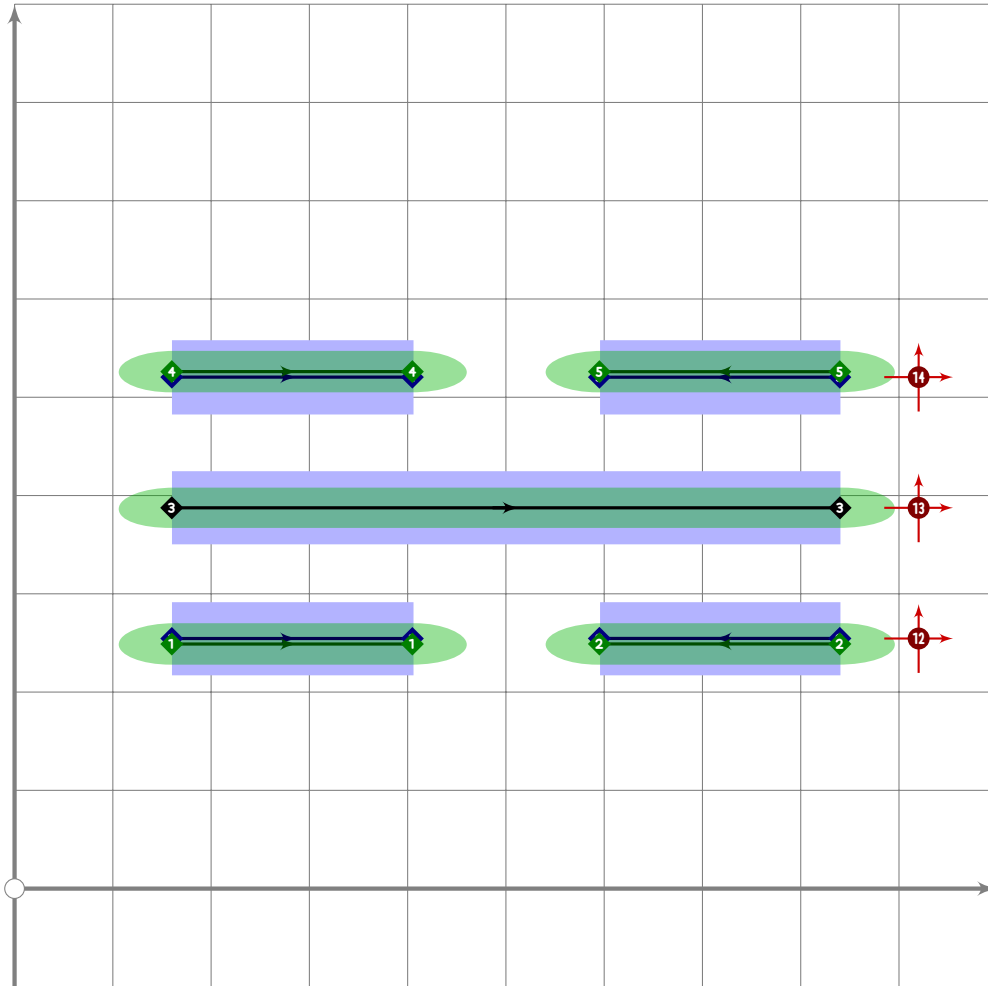
```

U+2634  
tsuku.ichingtri5



26

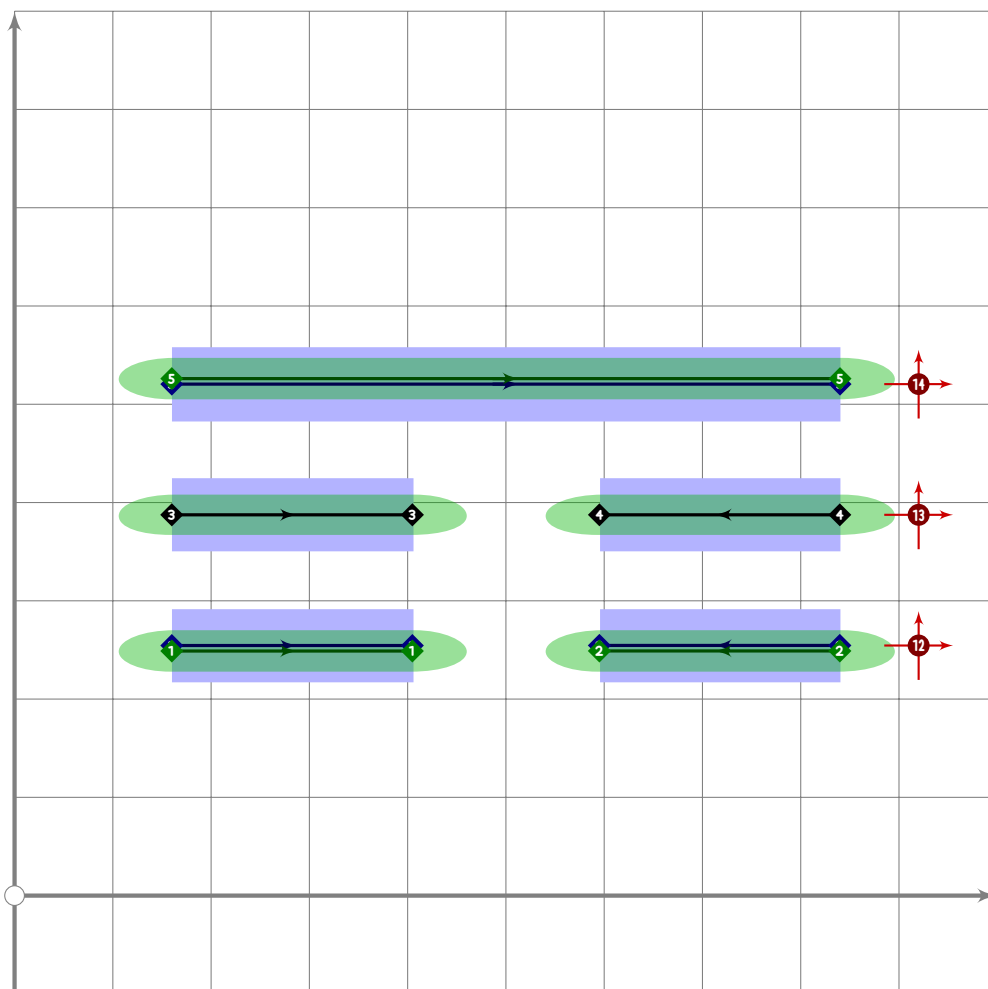
```
73  
74 begintsuglyph("ichingtri5";52);  
75   iching.line(1,3,0);  
76   iching.line(2,3,1);  
77   iching.line(3,3,1);  
78   tsu_render;  
79 endsuglyph;
```



```

80
81 begint Suglyph("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;

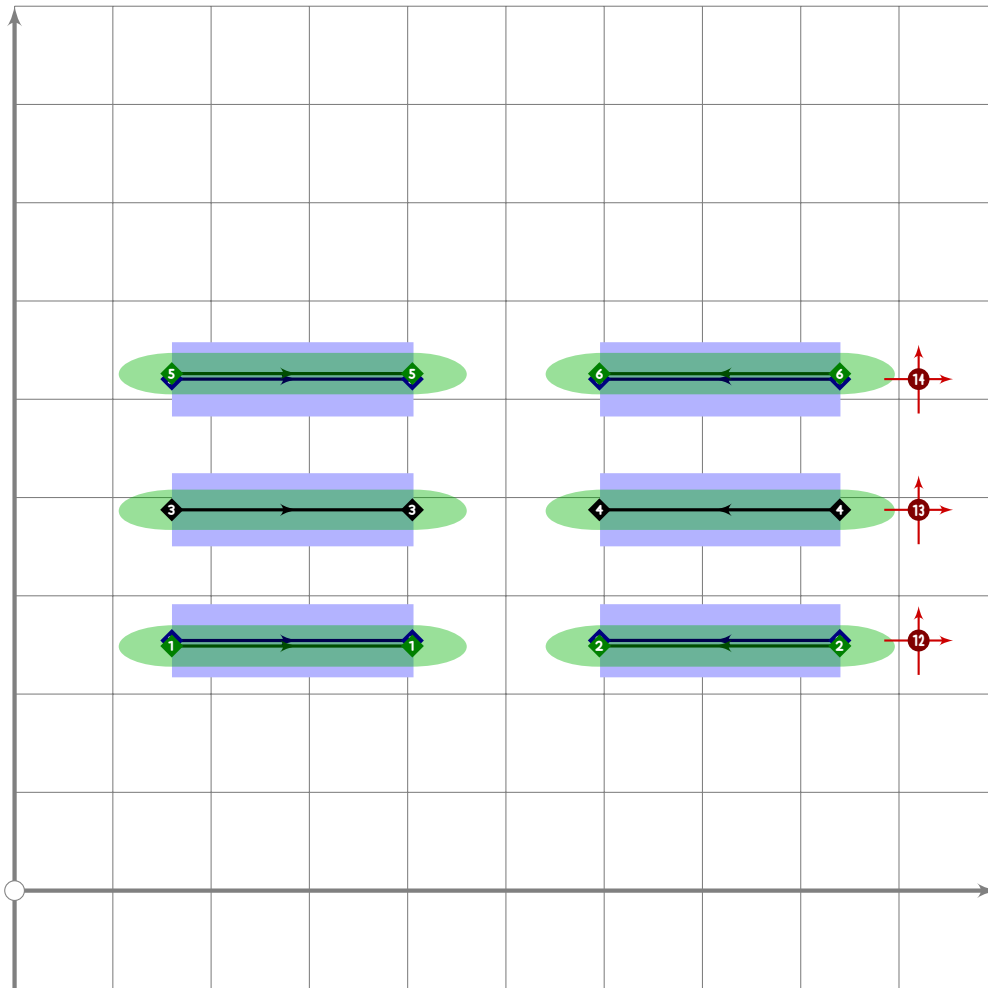
```



```

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 endsuglyph;

```

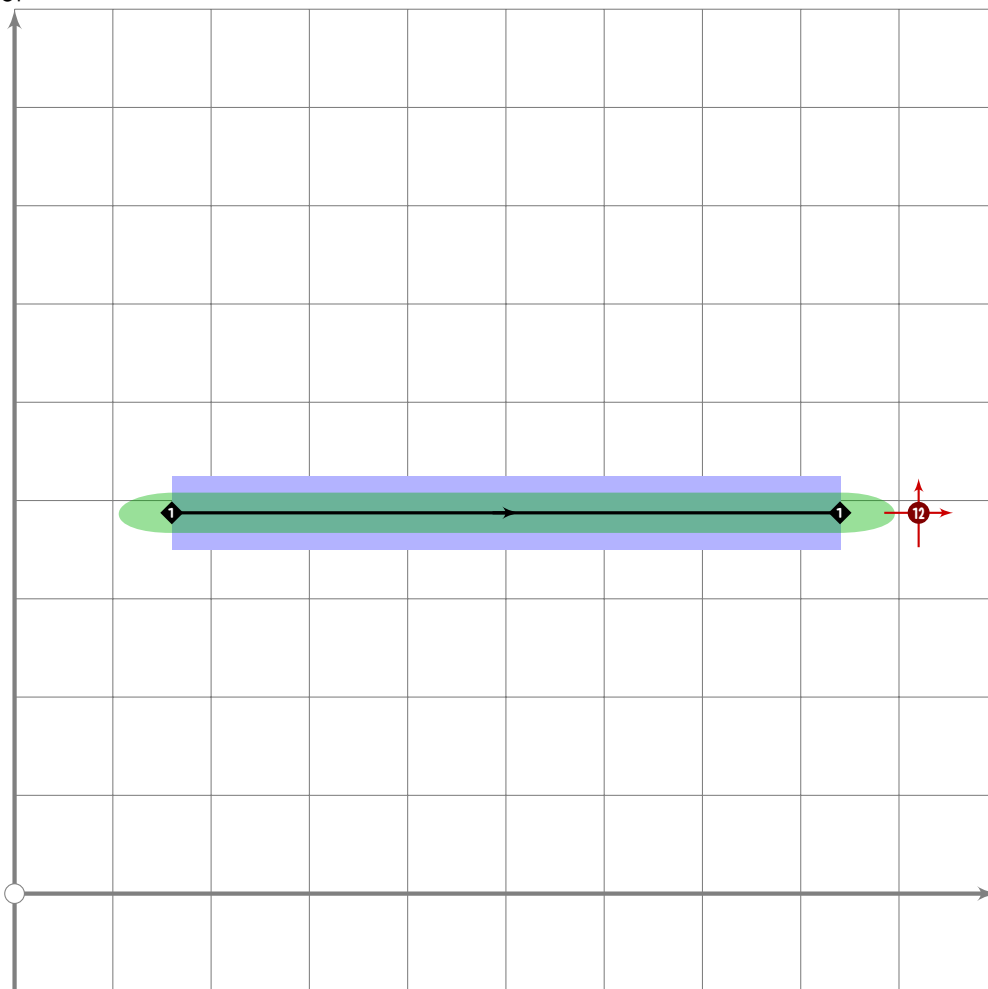


```

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;

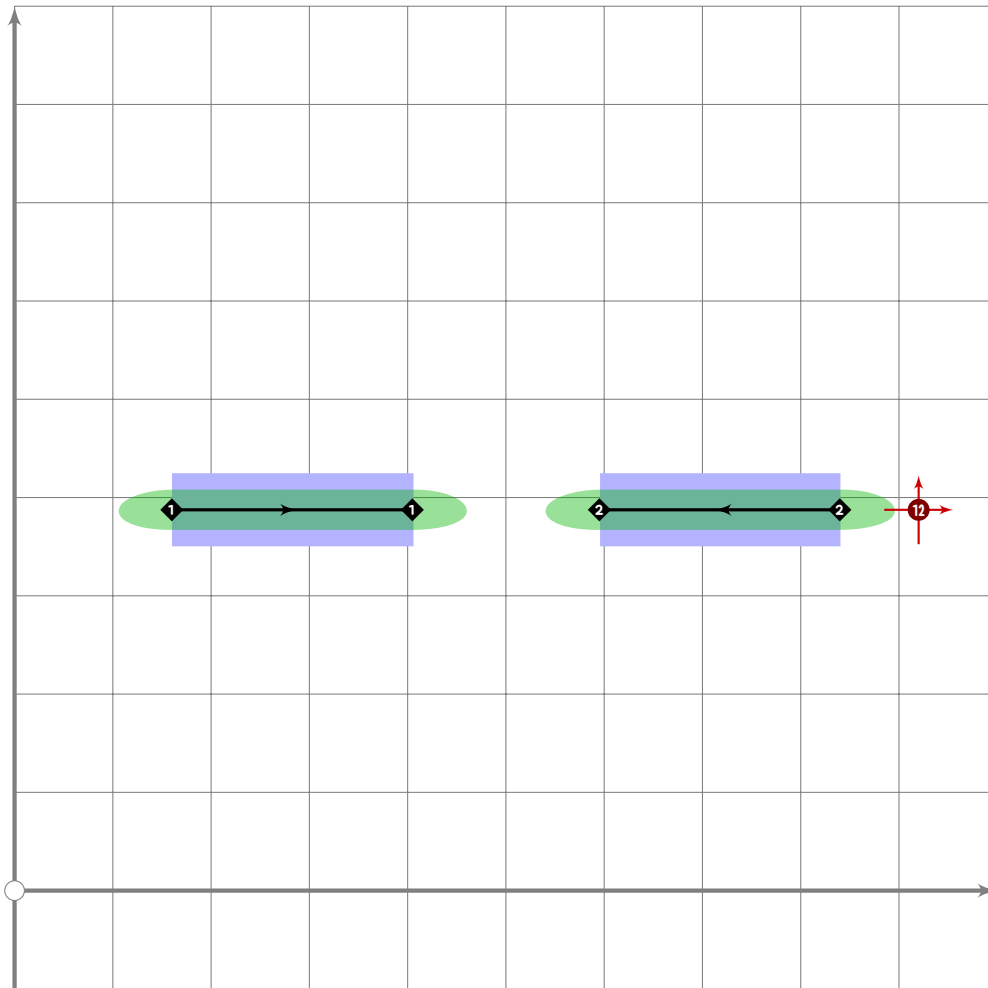
```

U+268A  
tsuku.ichingmono1



26

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



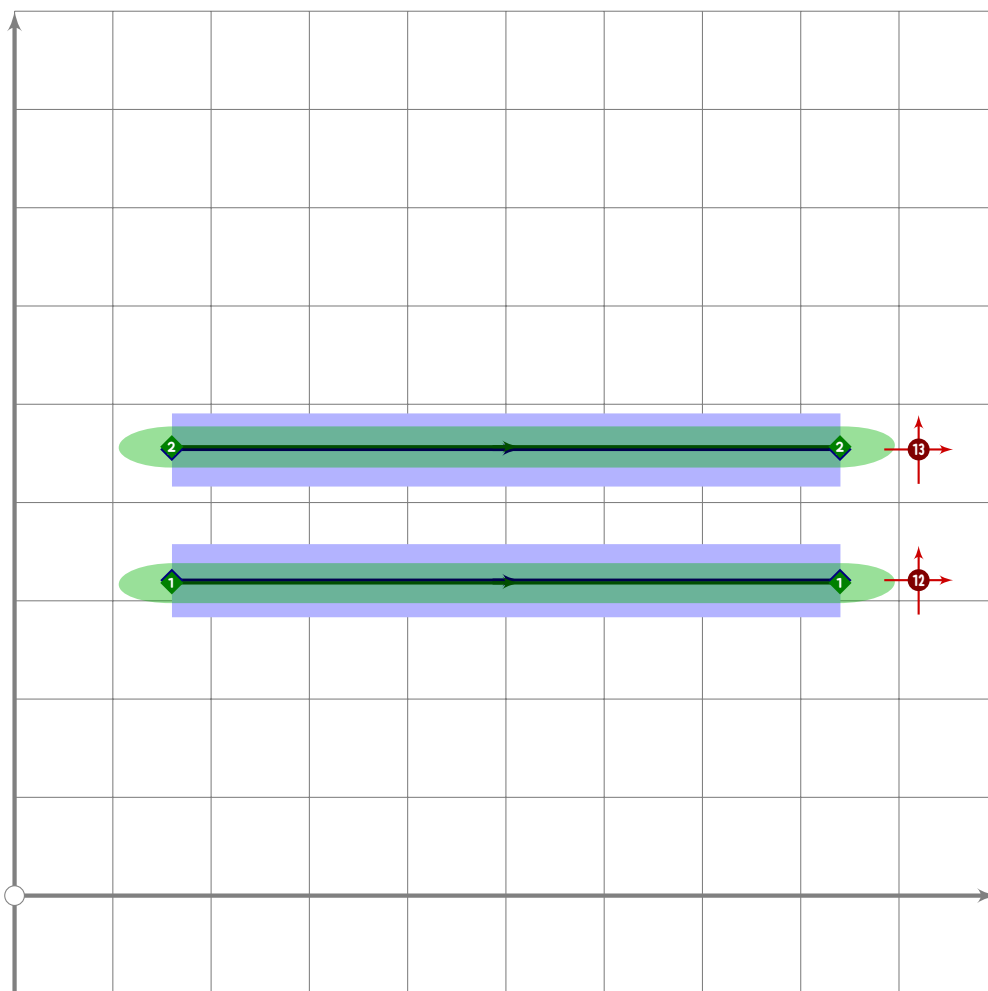
```

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

```

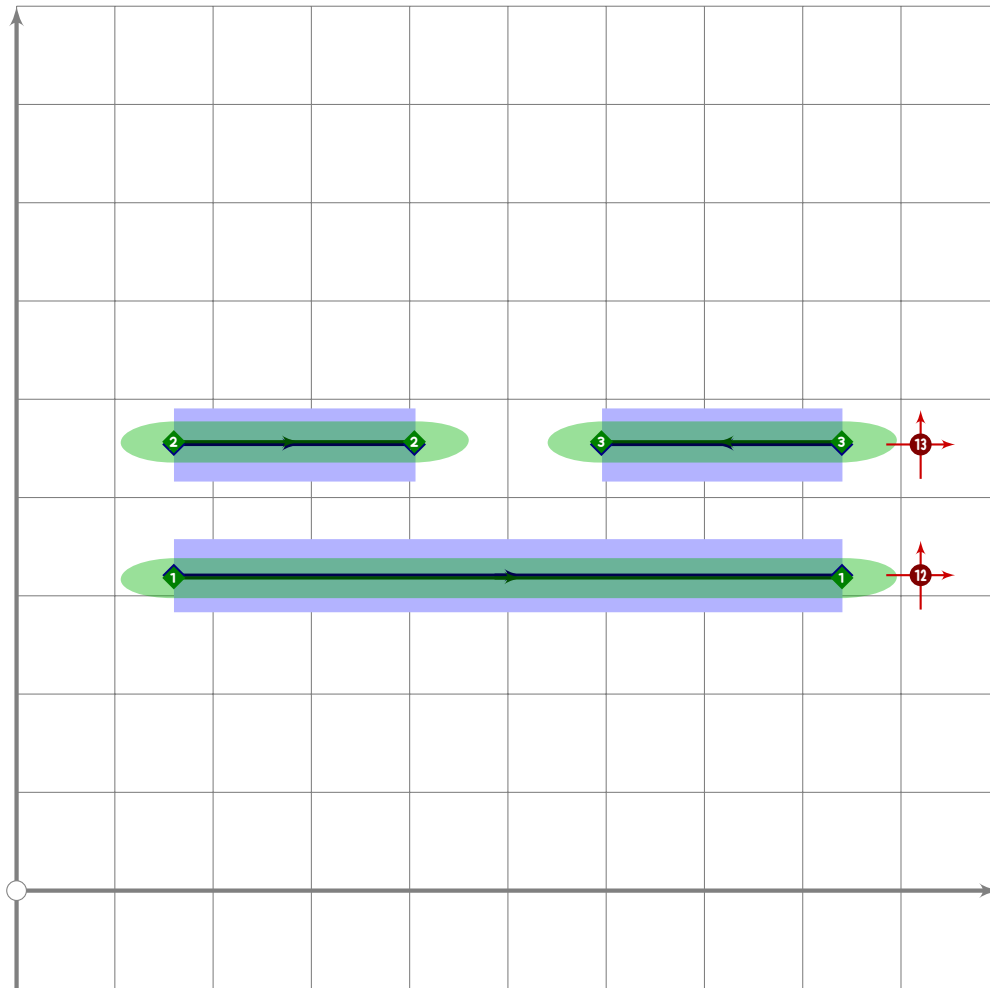


U+268C  
tsuku.ichingdi1



26

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

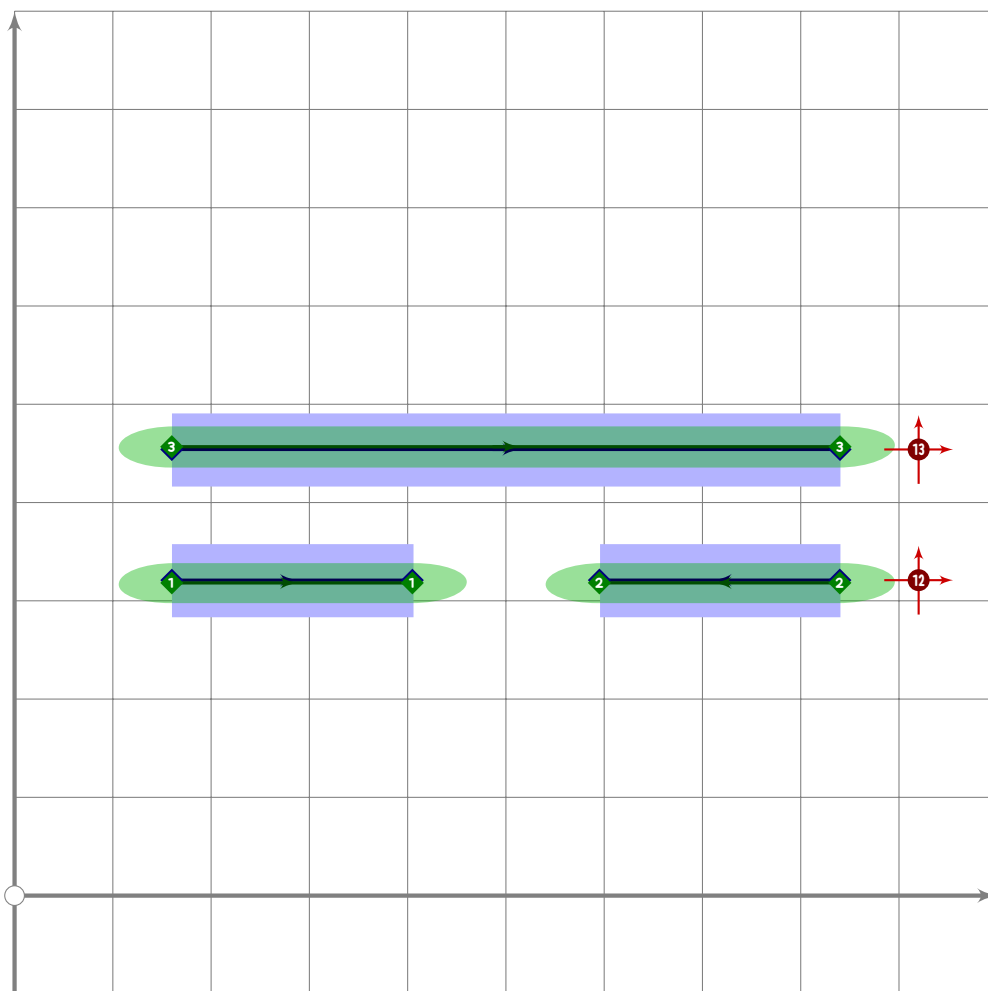


```

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

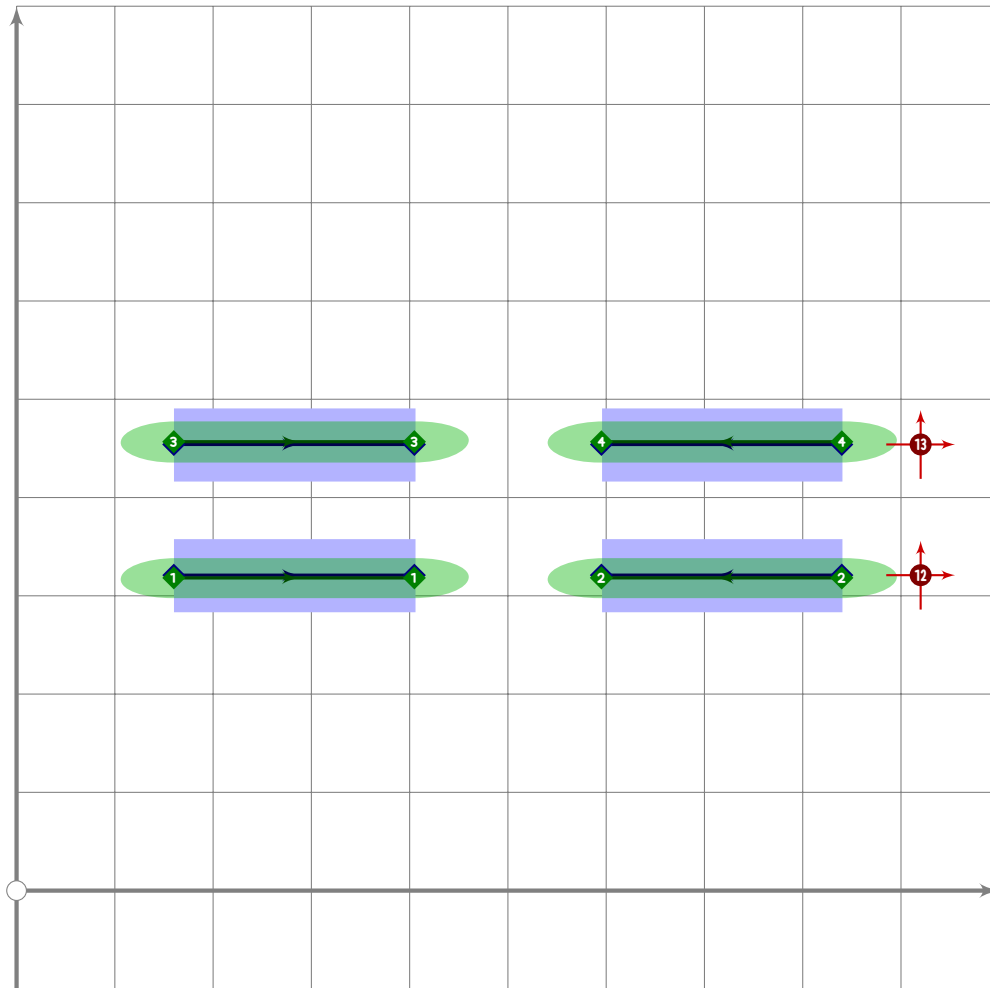
```

U+268E  
tsuku.ichingdi3



26

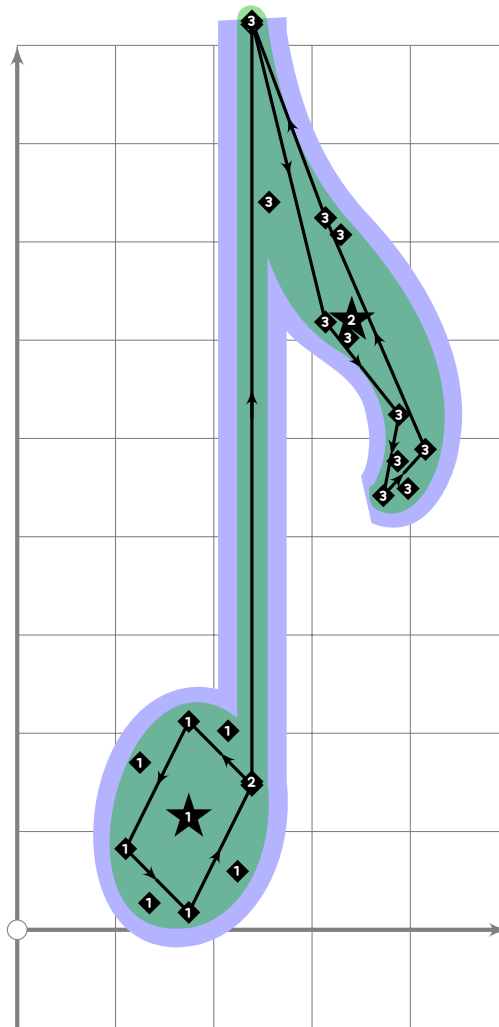
```
123
124 begintsuglyph("ichingdi3",142);
125   iching.line(1,2,0);
126   iching.line(2,2,1);
127   tsu_render;
128 endtsuglyph;
```



```

129
130 begint Suglyph("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 begintsuglyph("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 

---

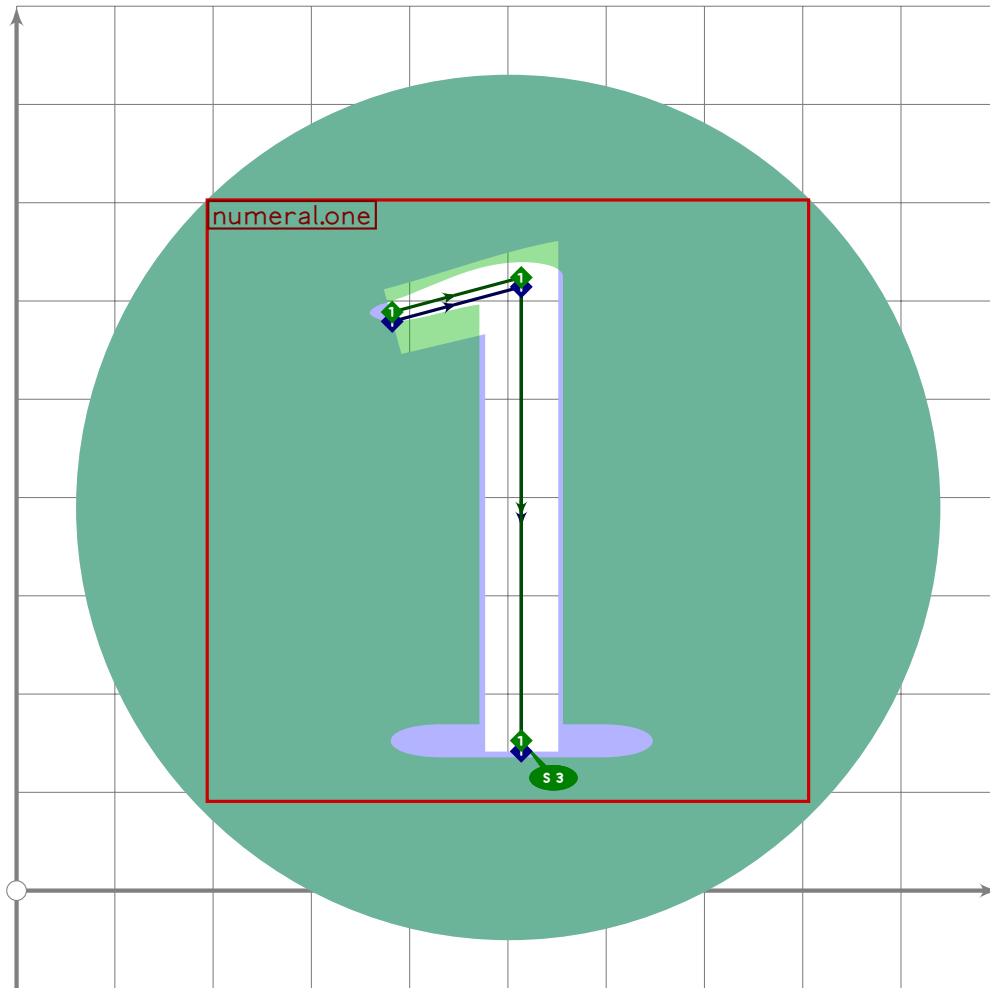

32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input enclosed.mp;
39 input numerals.mp;
40
41 do_late_includes;
42
43 

---


44
```

## Inverted Circled Numerals

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

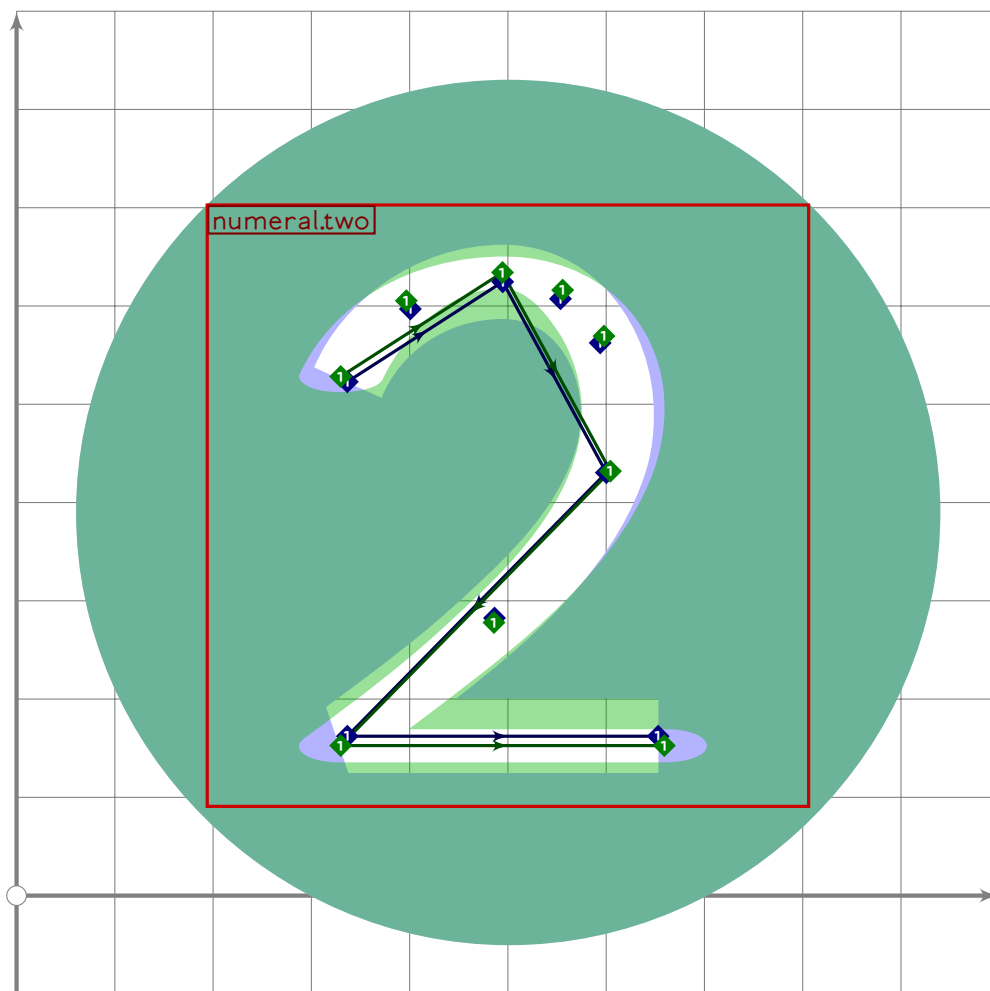


```

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

```



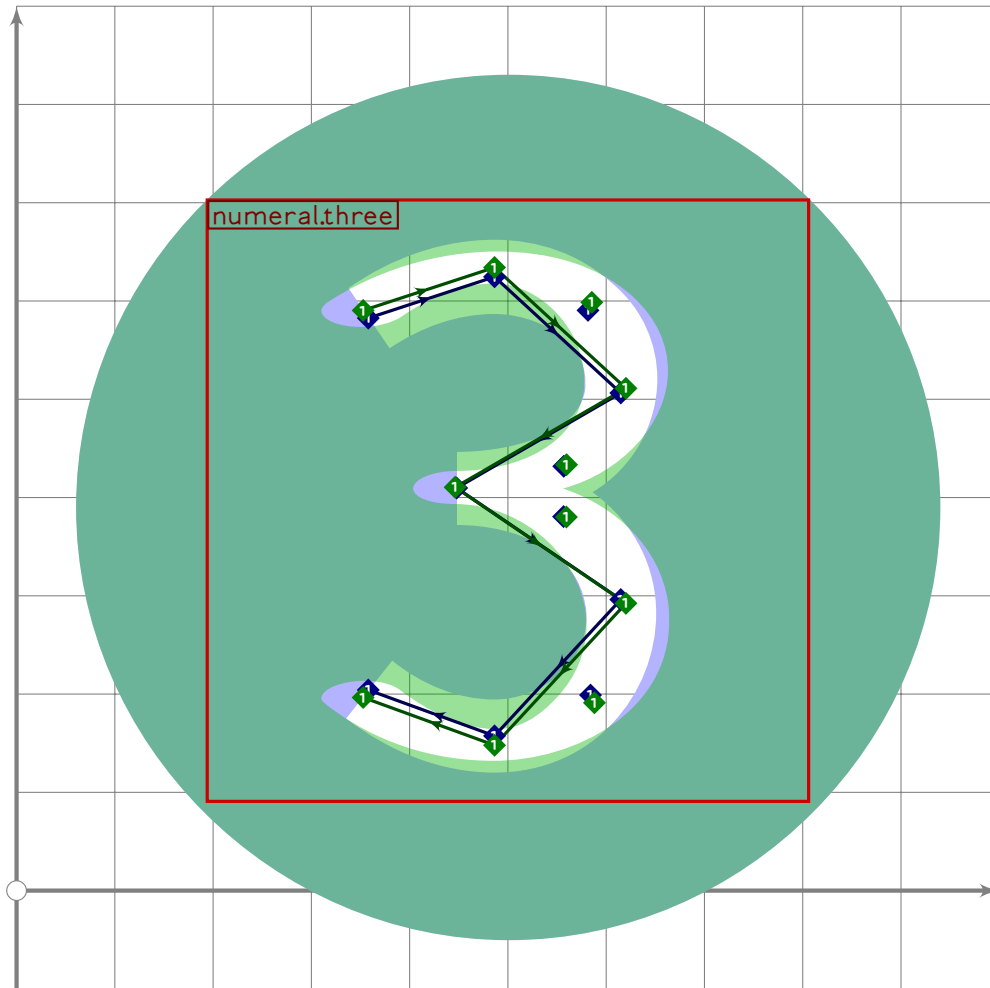


27

```

56 % 2
57 % BACKGROUND 25CF
58 begintuglyph("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 endtuglyph;
64

```

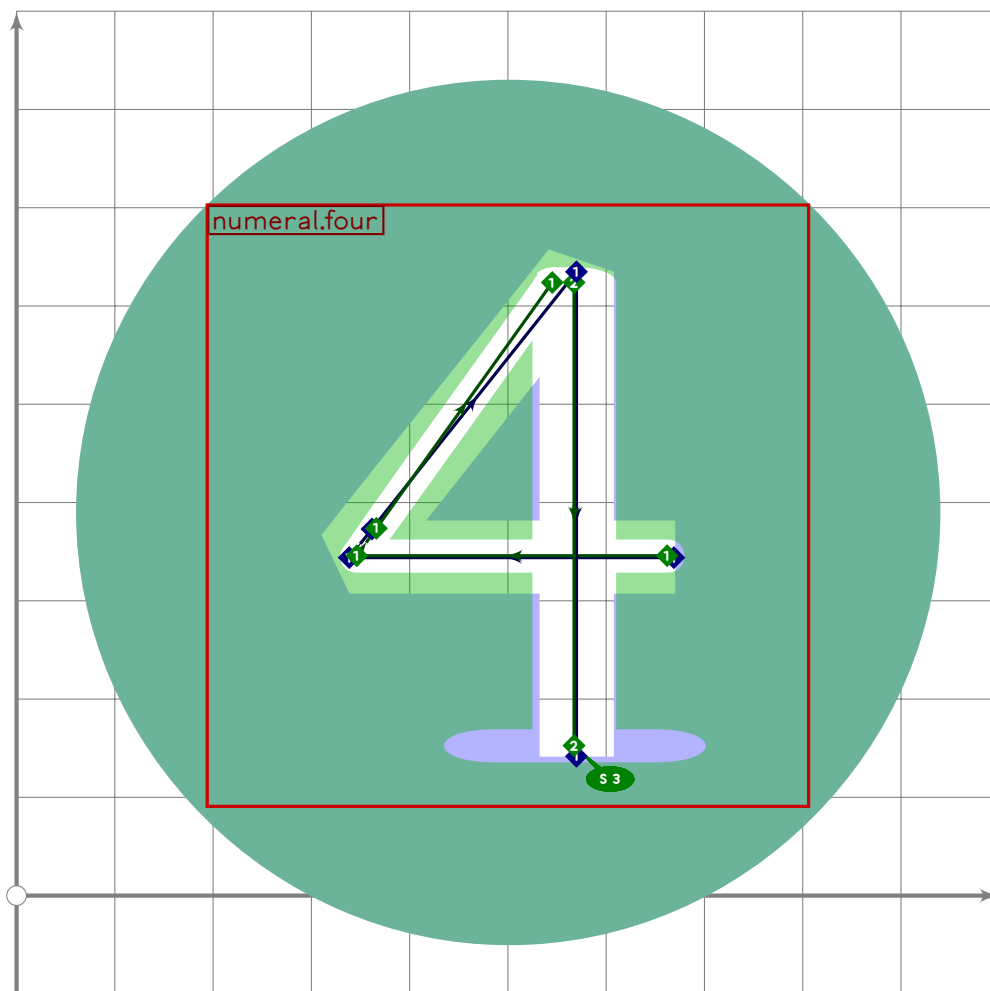


```

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

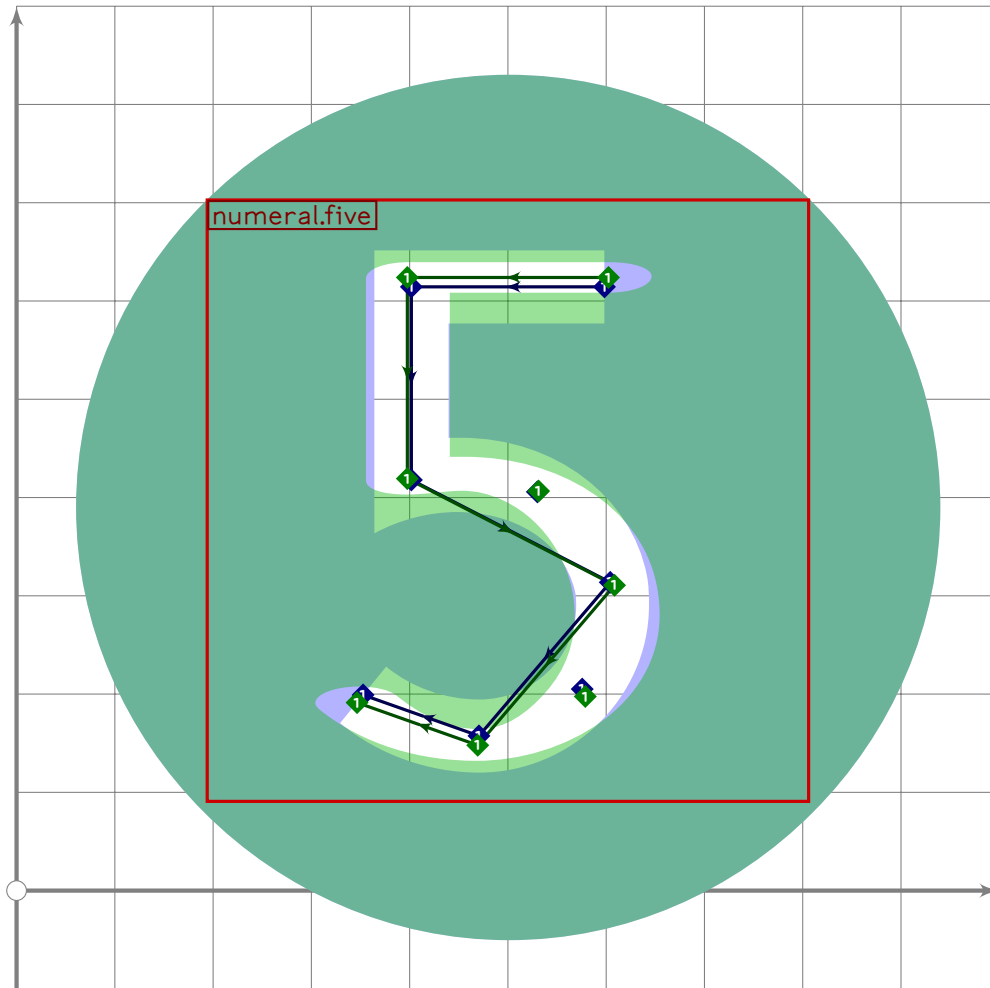


27

```

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

```

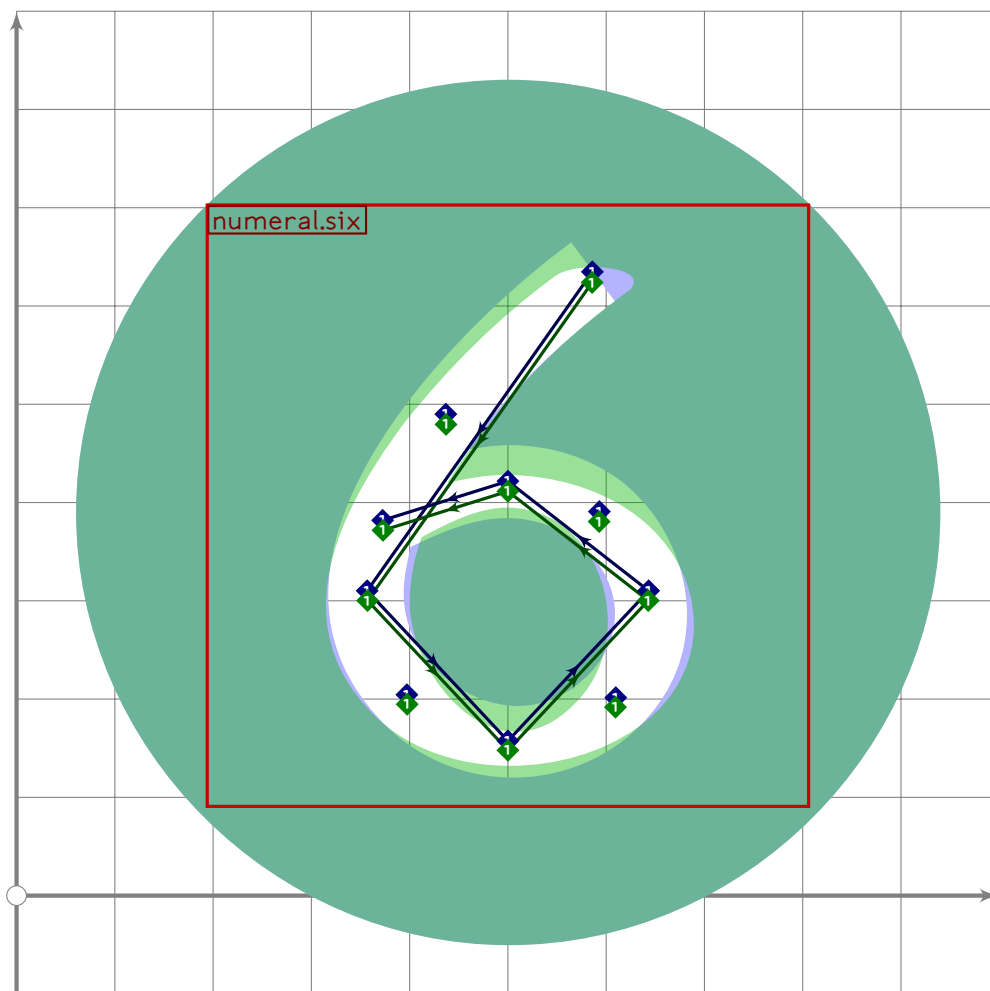


```

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

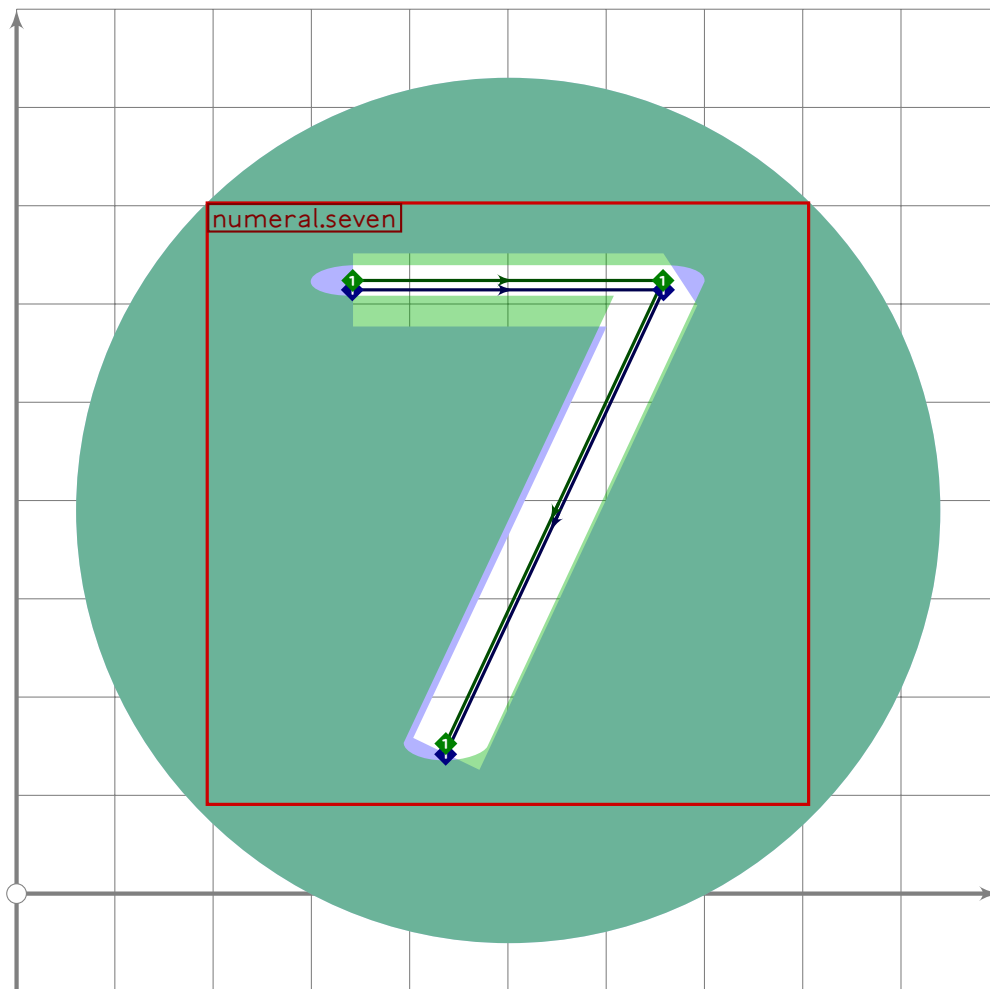


27

```

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

```

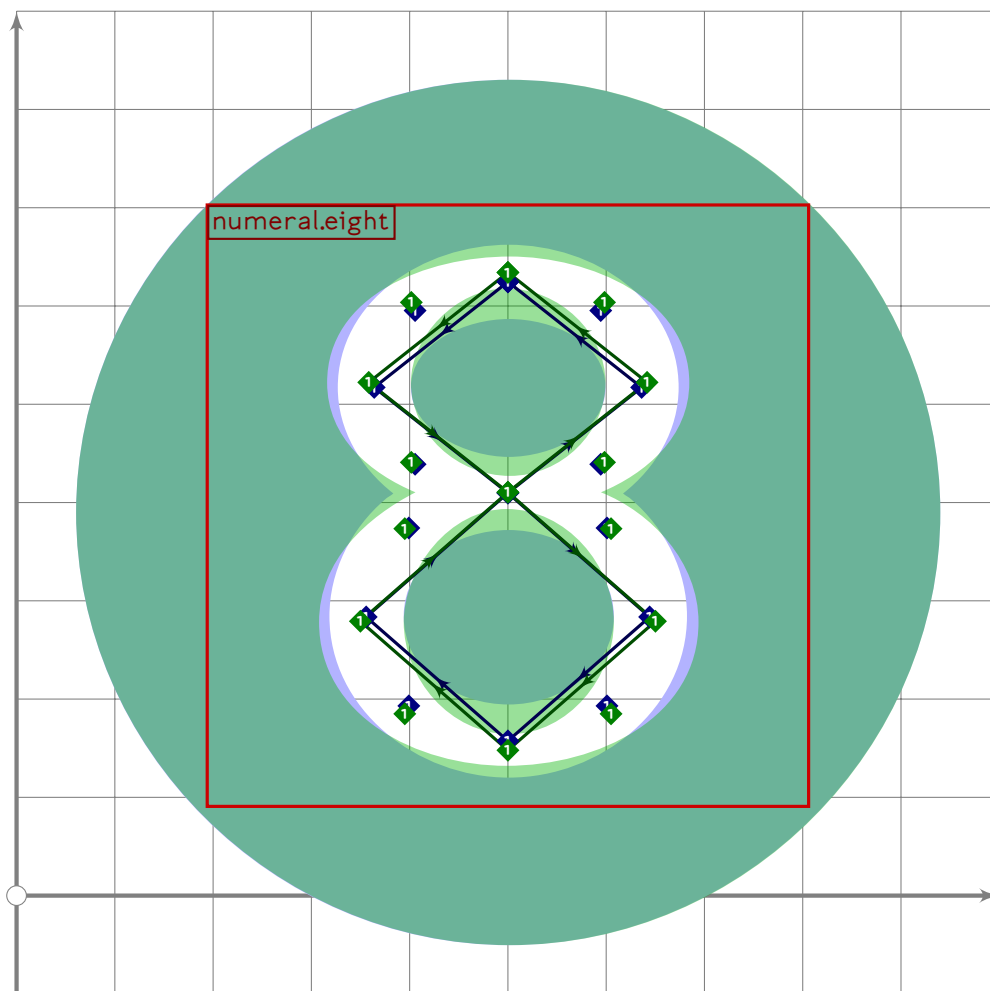


```

101 % 7
102 % BACKGROUND 25CF
103 begintsuglyph("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

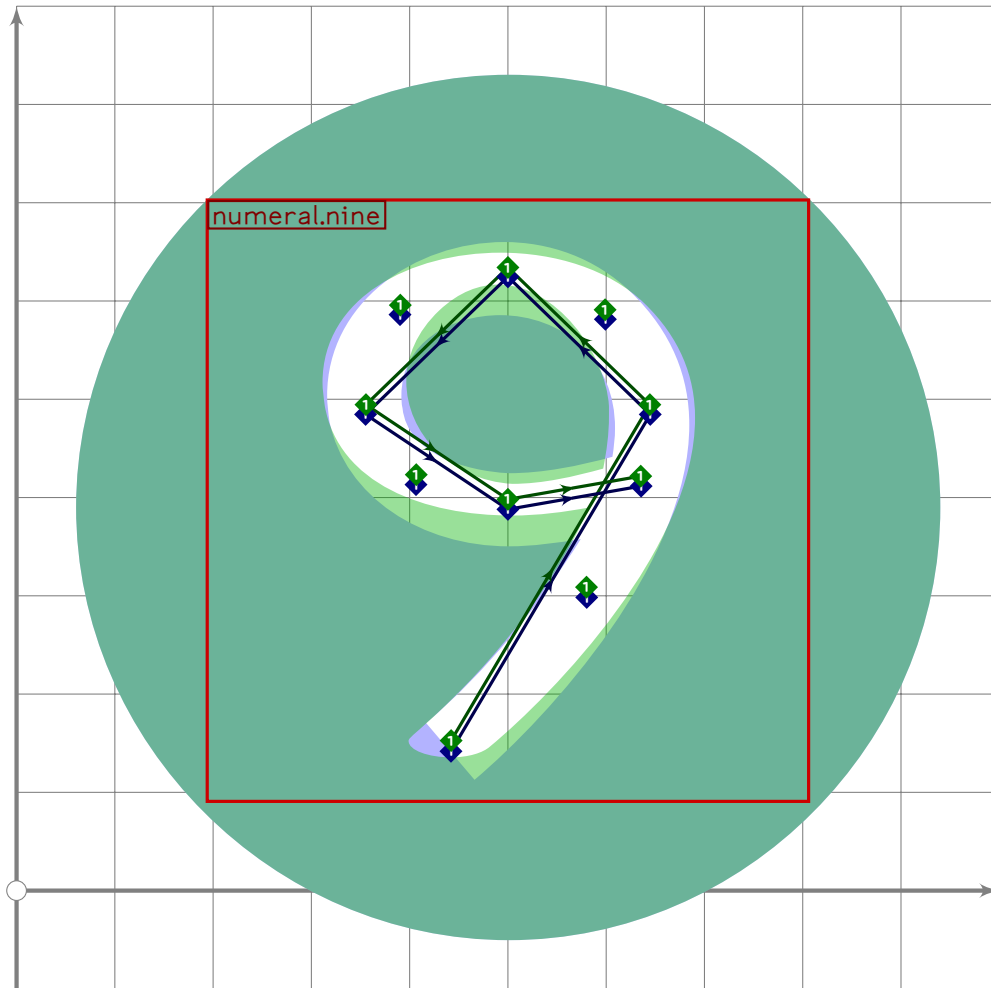


27

```

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

```

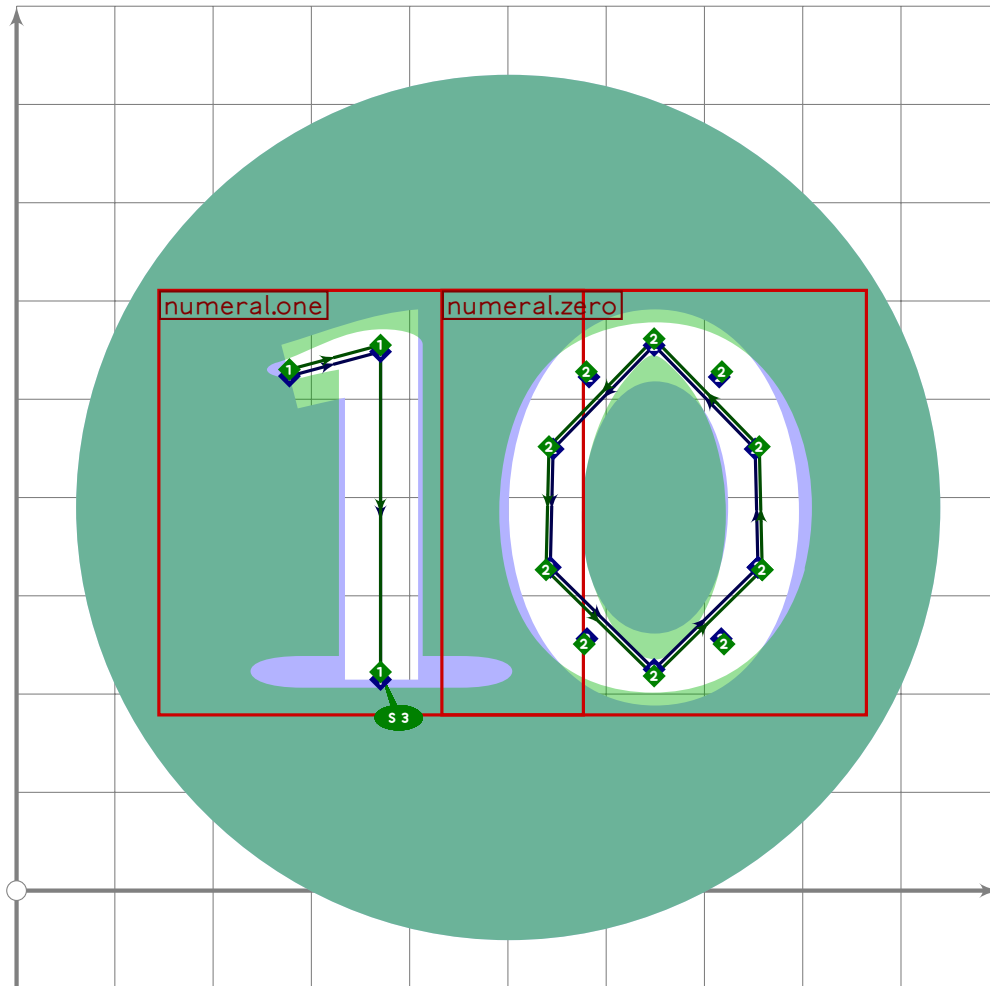


```

119 % 9
120 % BACKGROUND 25CF
121 begintsuglyph("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

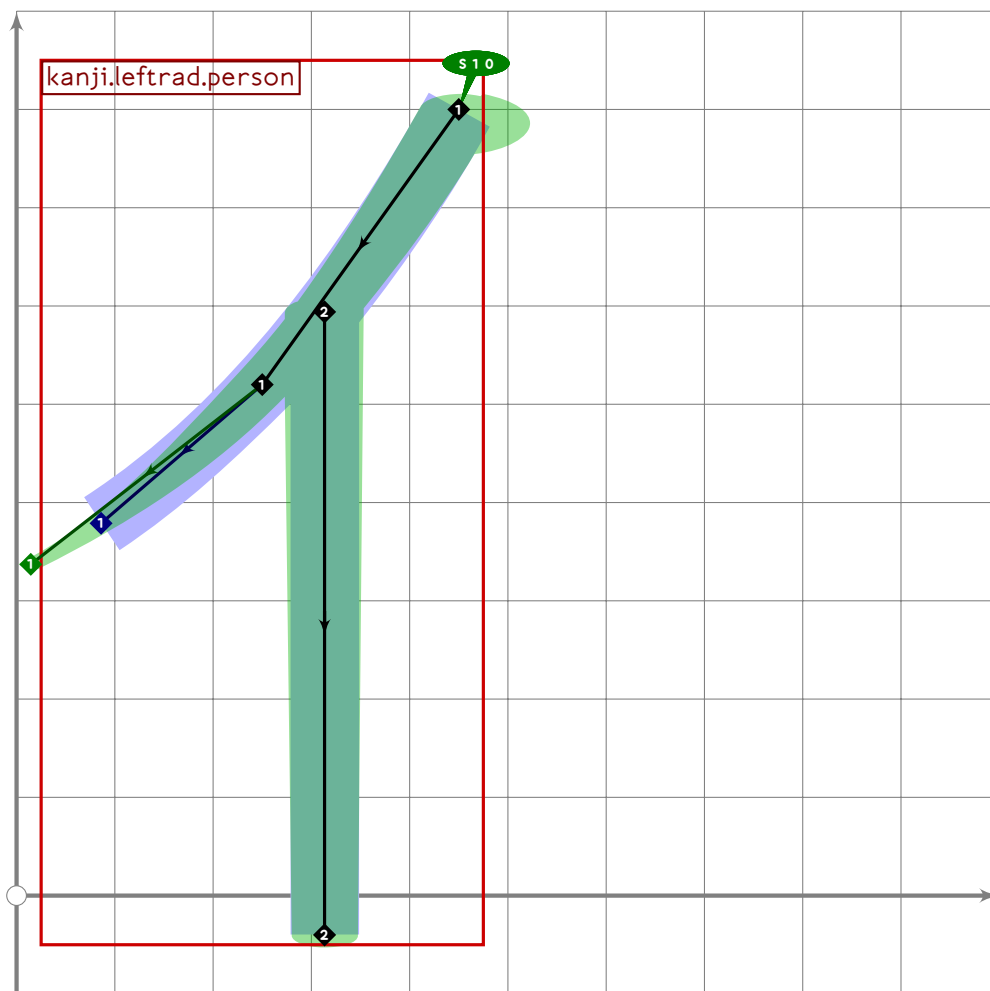
```
1 %
2 % Unicode page 2E (Radicals Supplement) for Tsukurimashou
3 % Copyright (C) 2012, 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31
32
33 beginfont
34
35 % AUTODEPS
36 input bkencl.mp;
37 input bottomrad.mp;
38 input buildkanji.mp;
39 input gradefive.mp;
40 input gradefour.mp;
41 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

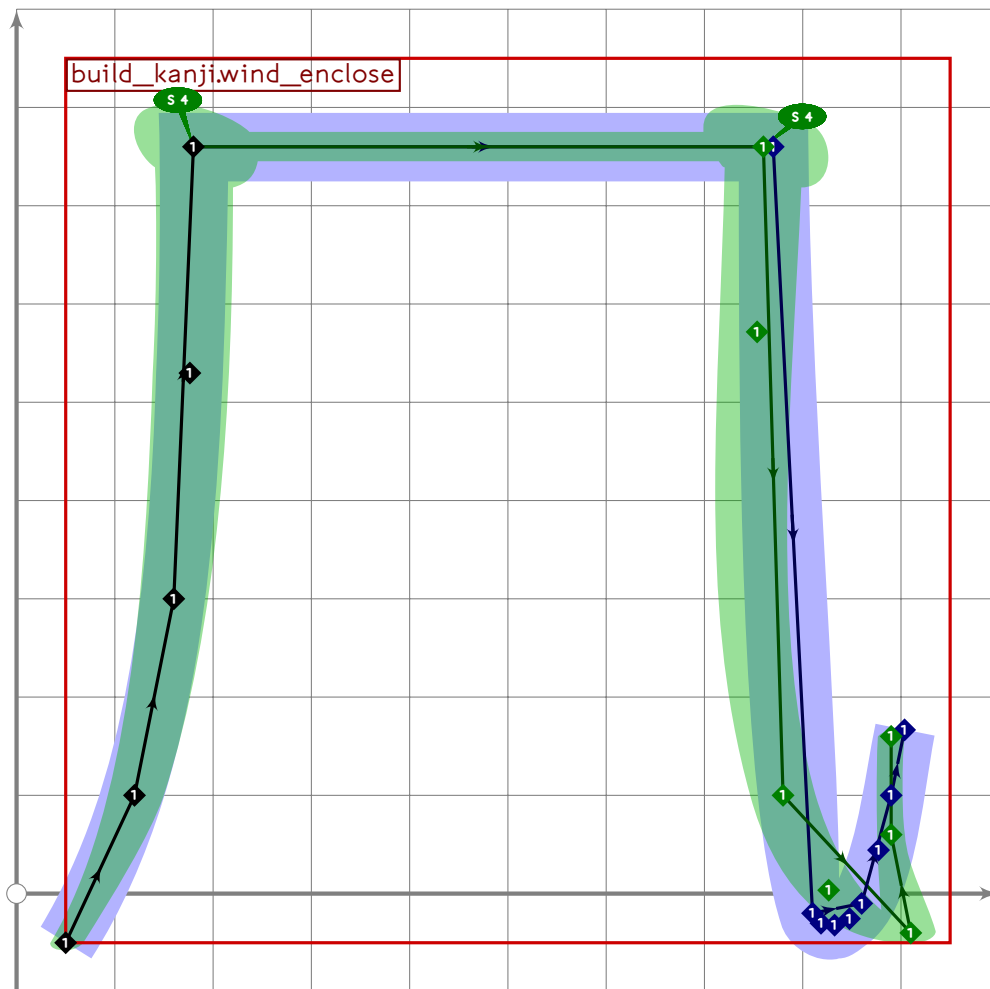
## Cjk Radicals Supplement

```
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
```

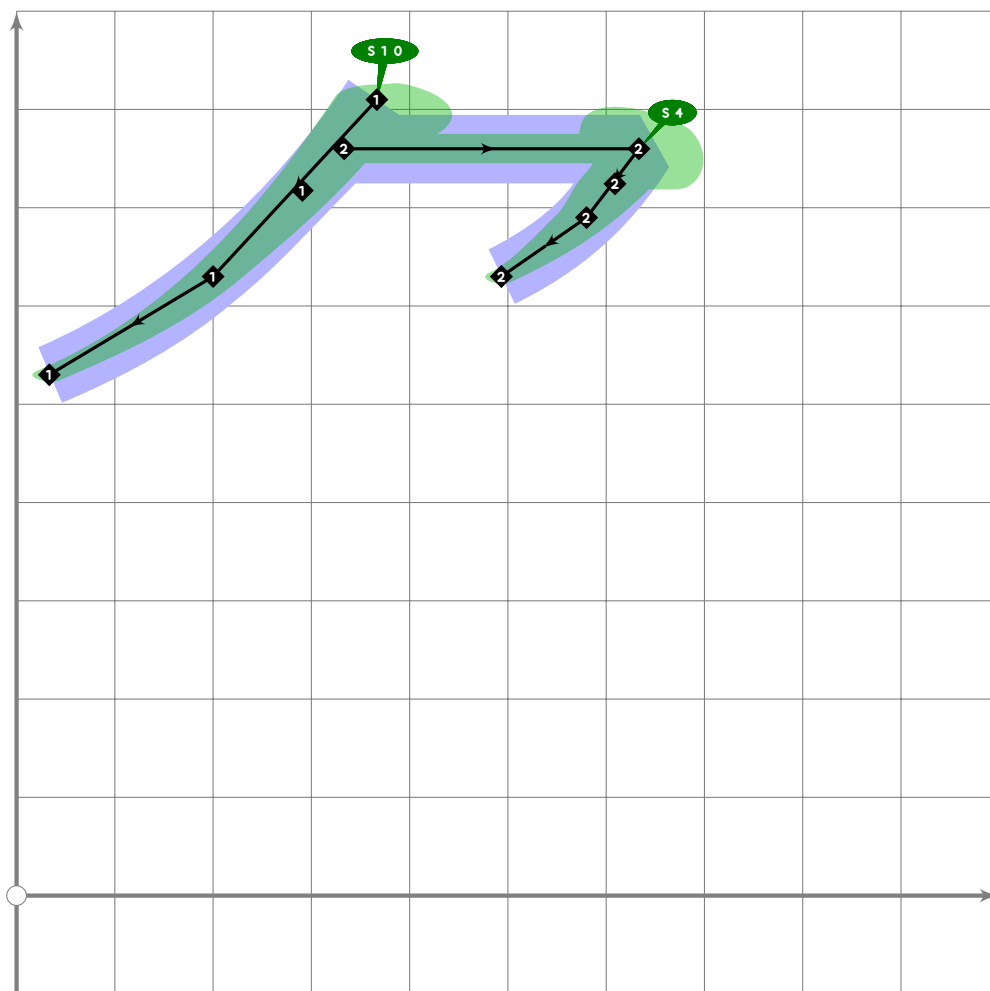


```

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

```

U+2E88  
tsuku.uni2E88

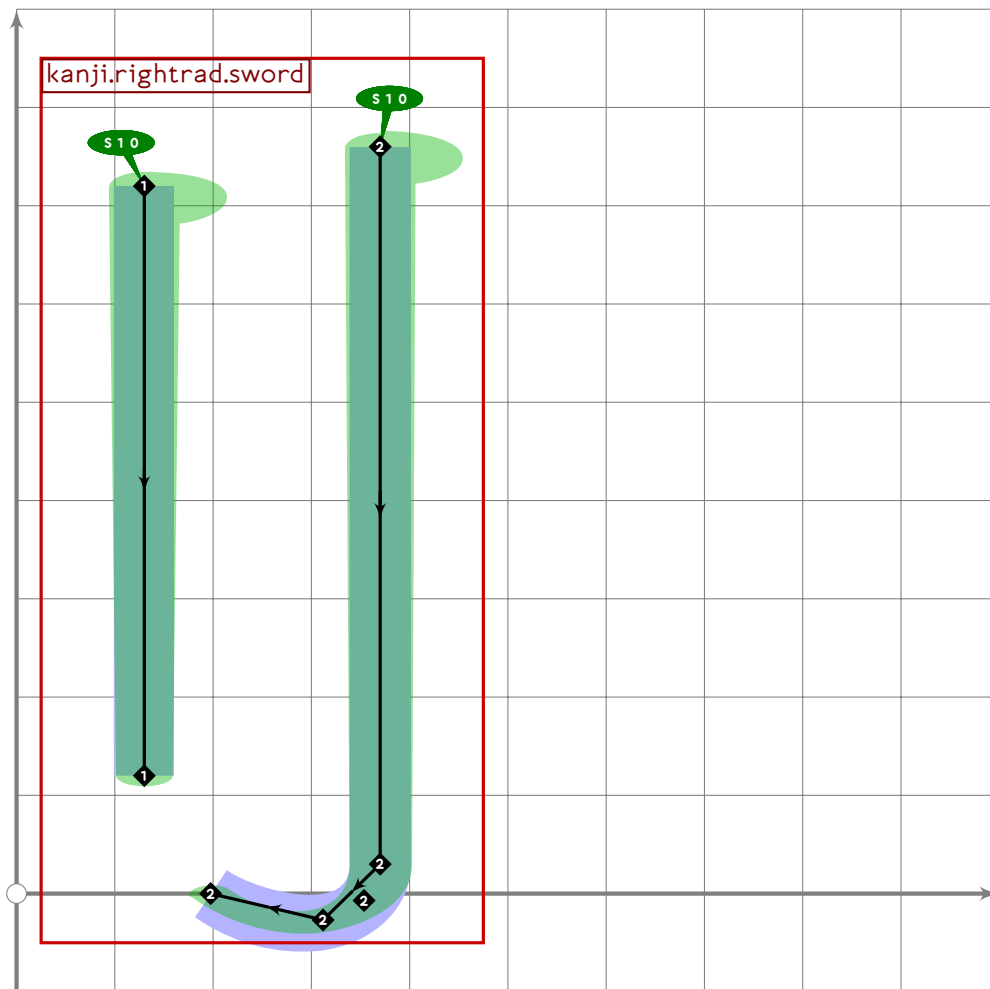


```

68 % Unicode calls it "knife one"
69 begintsuglyph("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

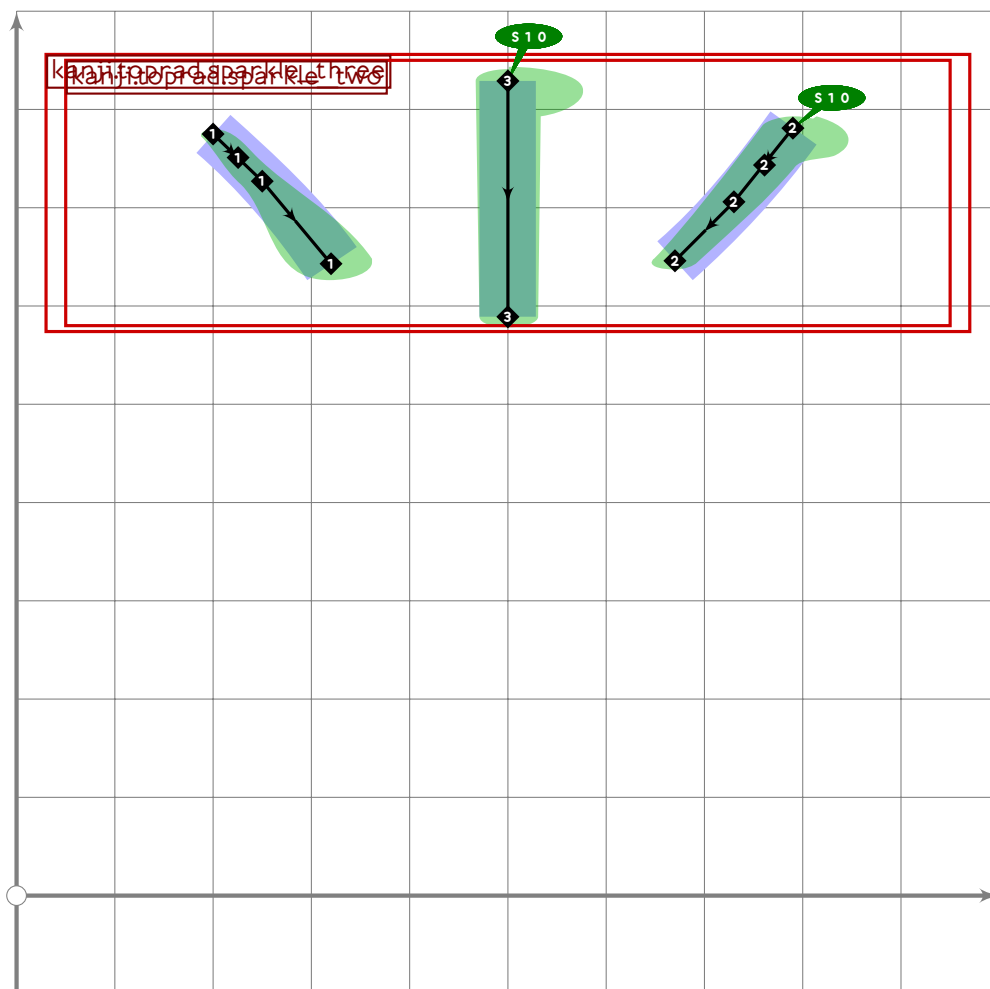


```

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

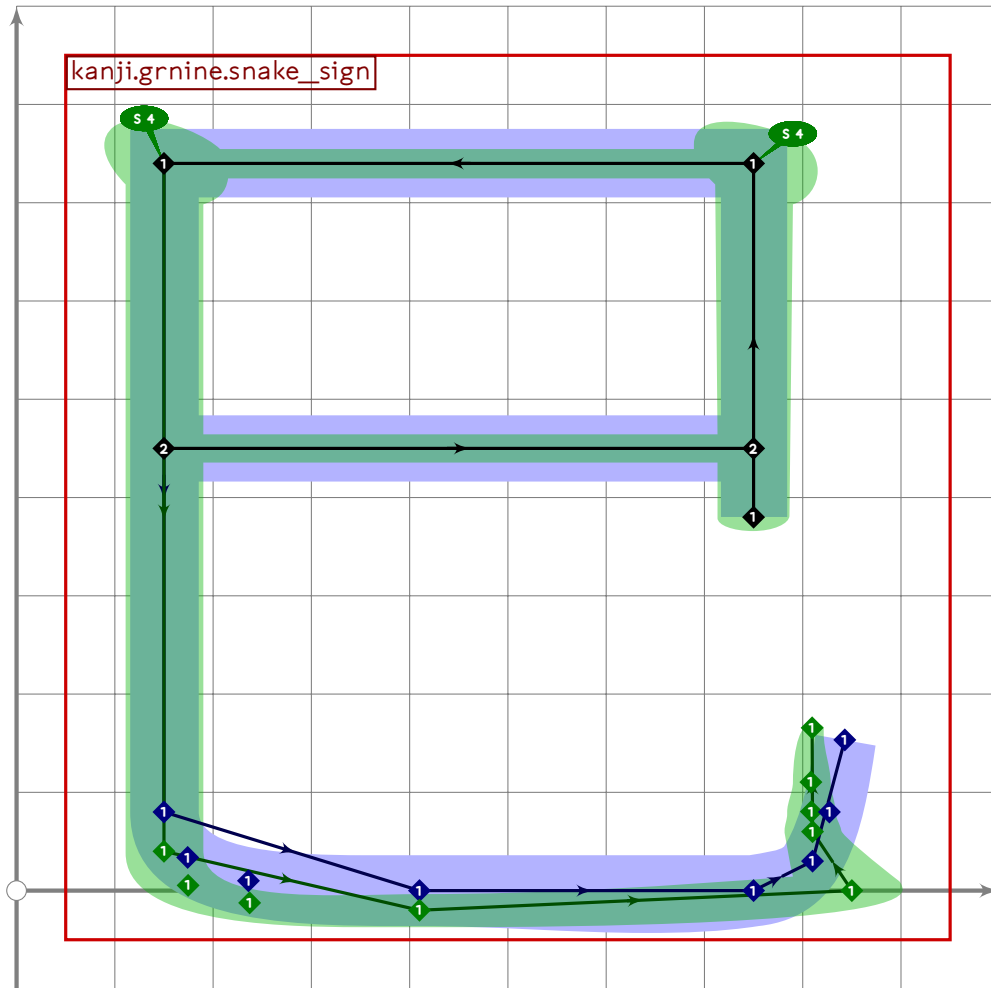


```

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



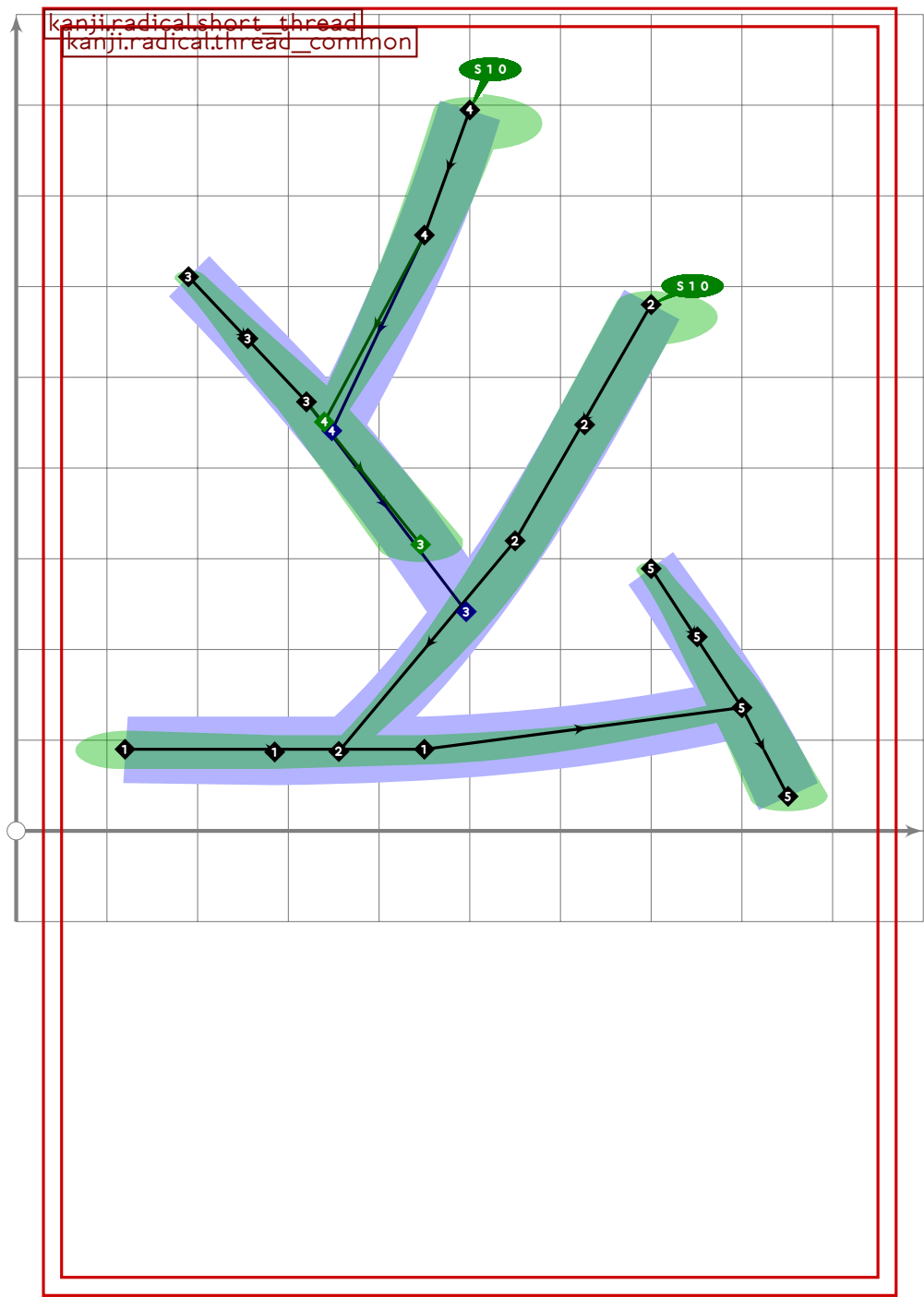
```

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

```

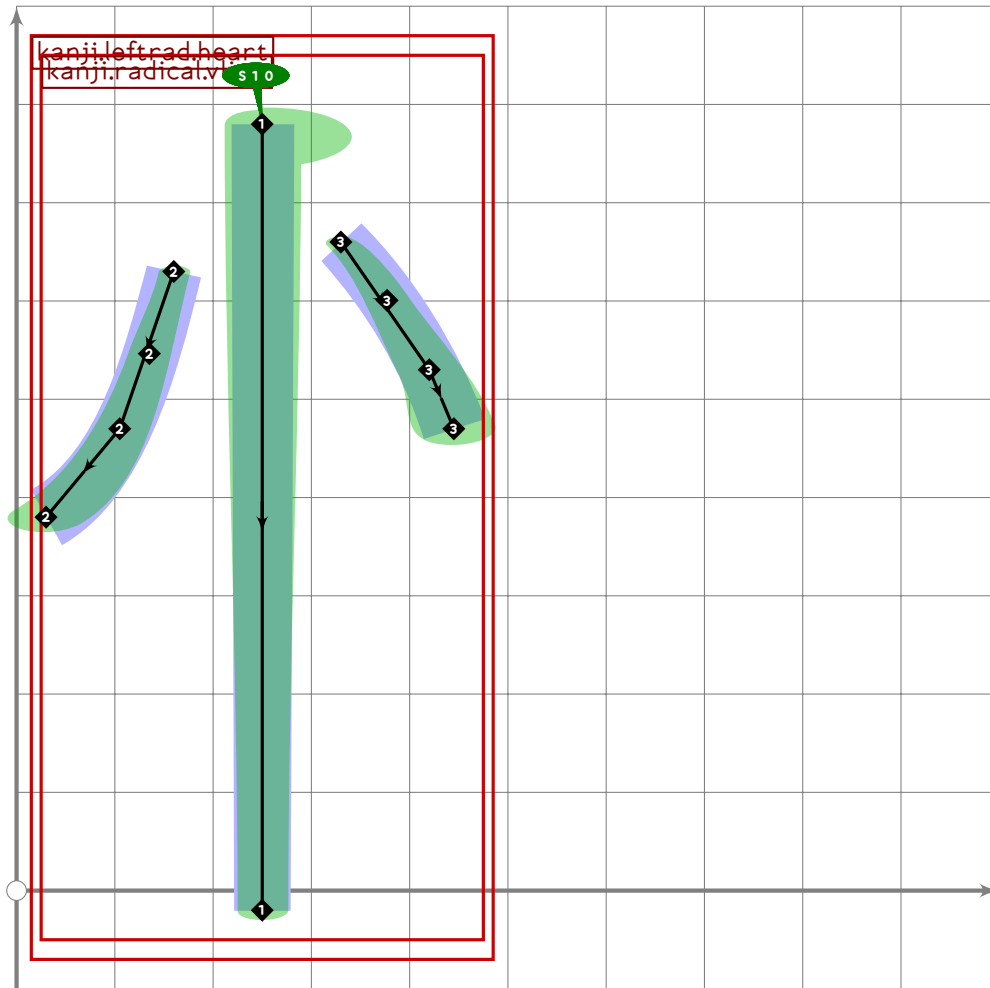


U+2E93  
tsuku.uni2E93



2E

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

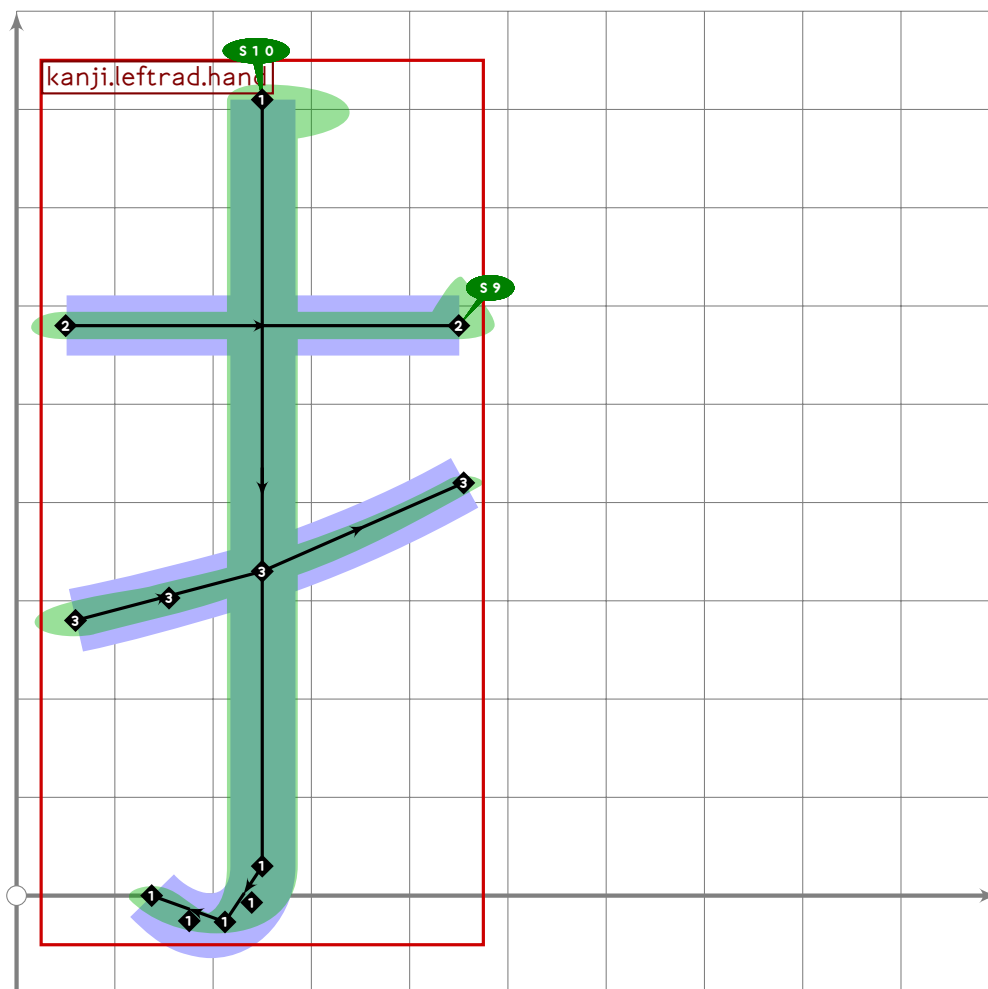


```

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

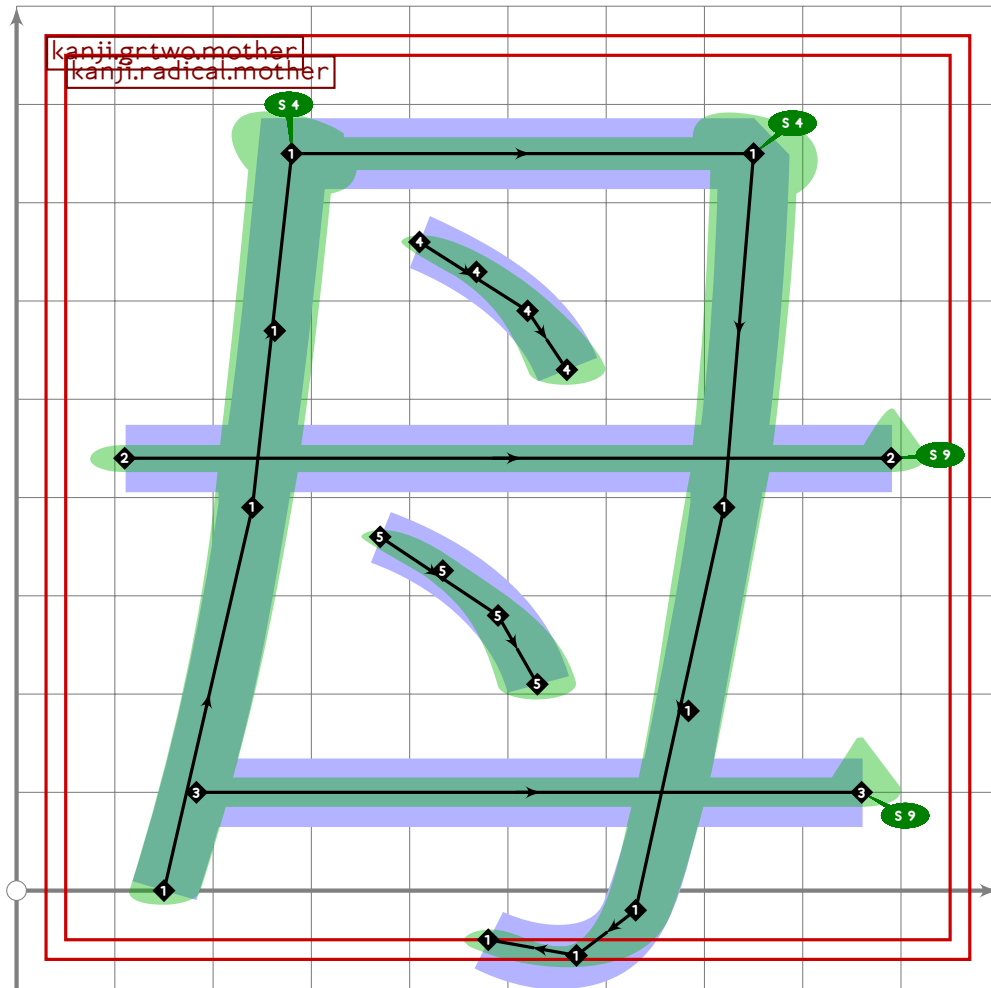


```

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 809]

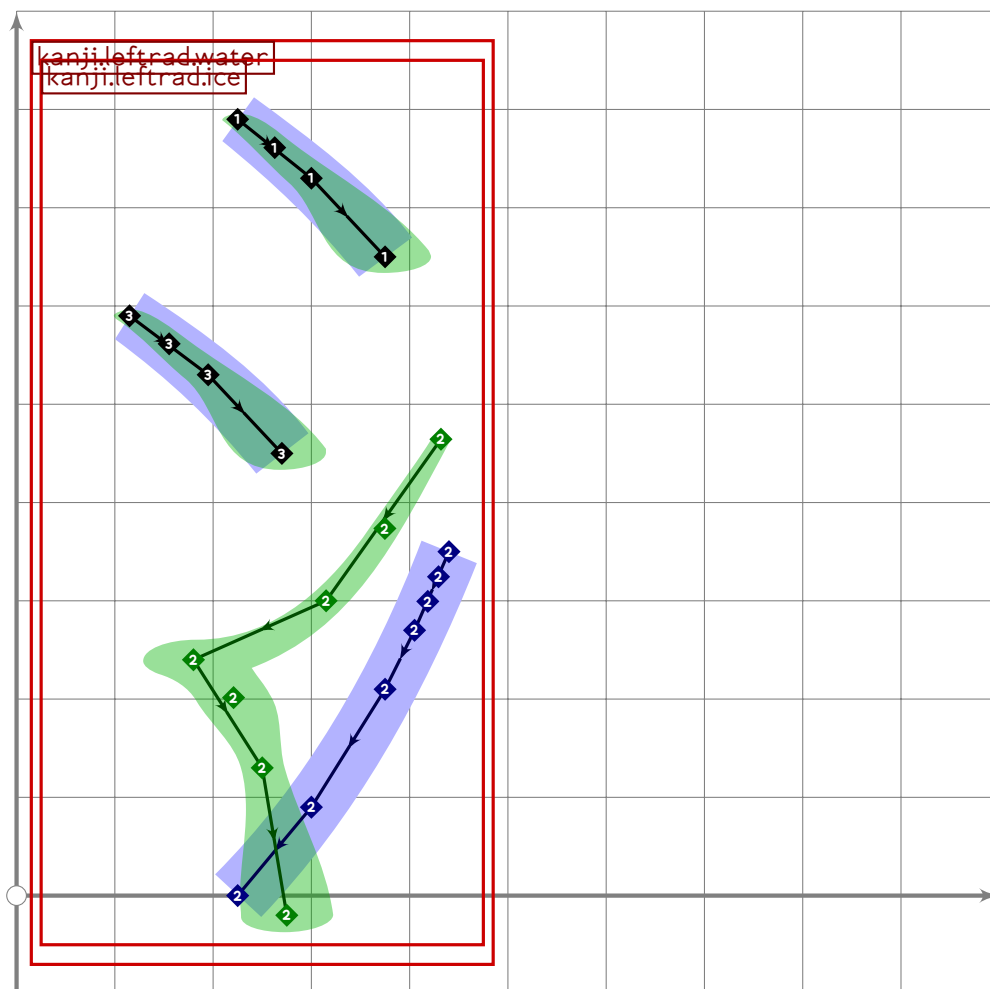


```

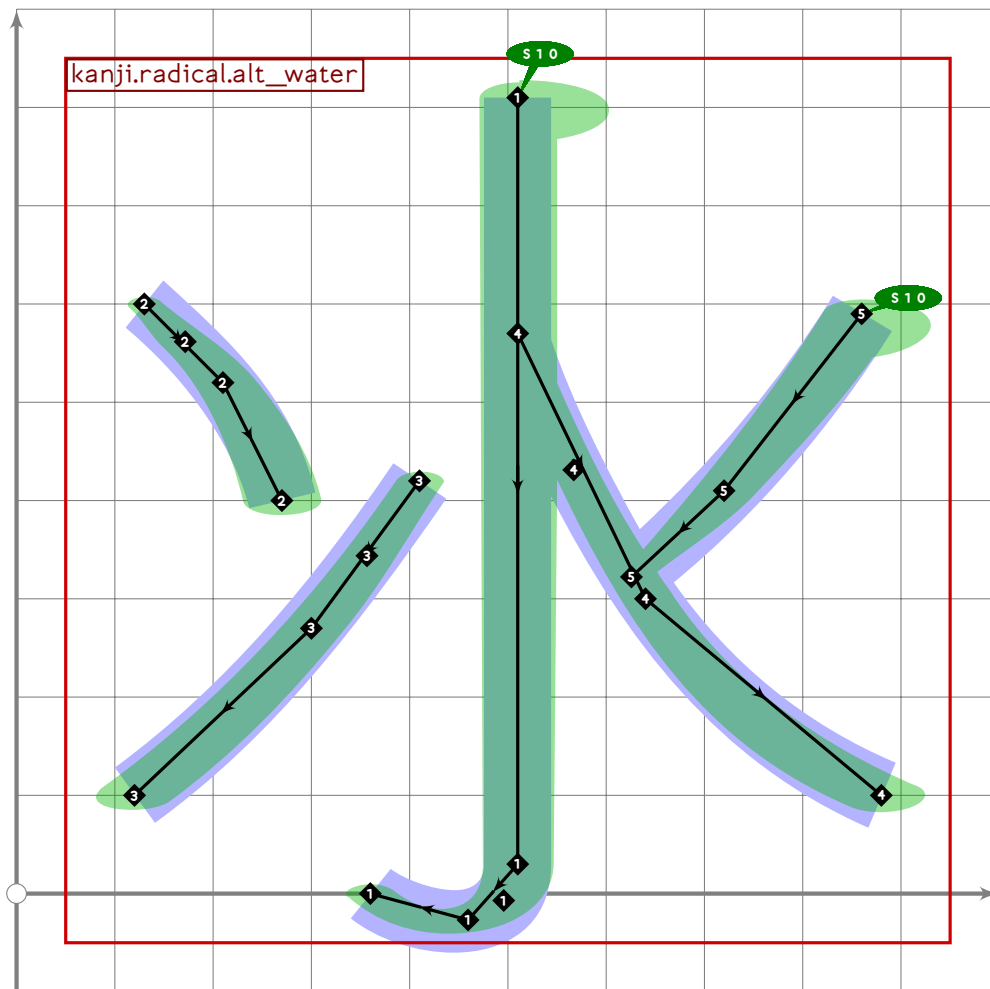
122 % bo/haha "mother"
123 beginsuglyph("uni2E9F",159);
124   kanji.grtwo.mother;
125   tsu_render;
126 endsuglyph;
127

```

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
```

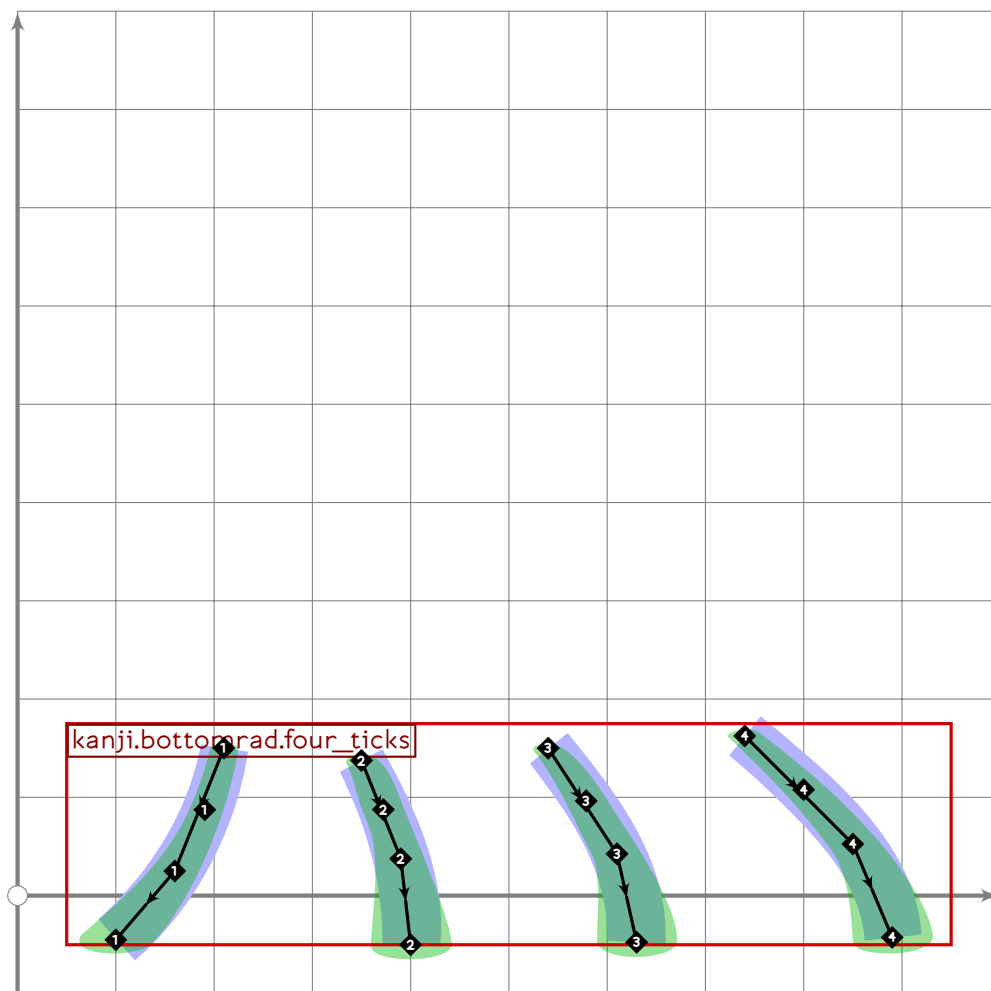


```

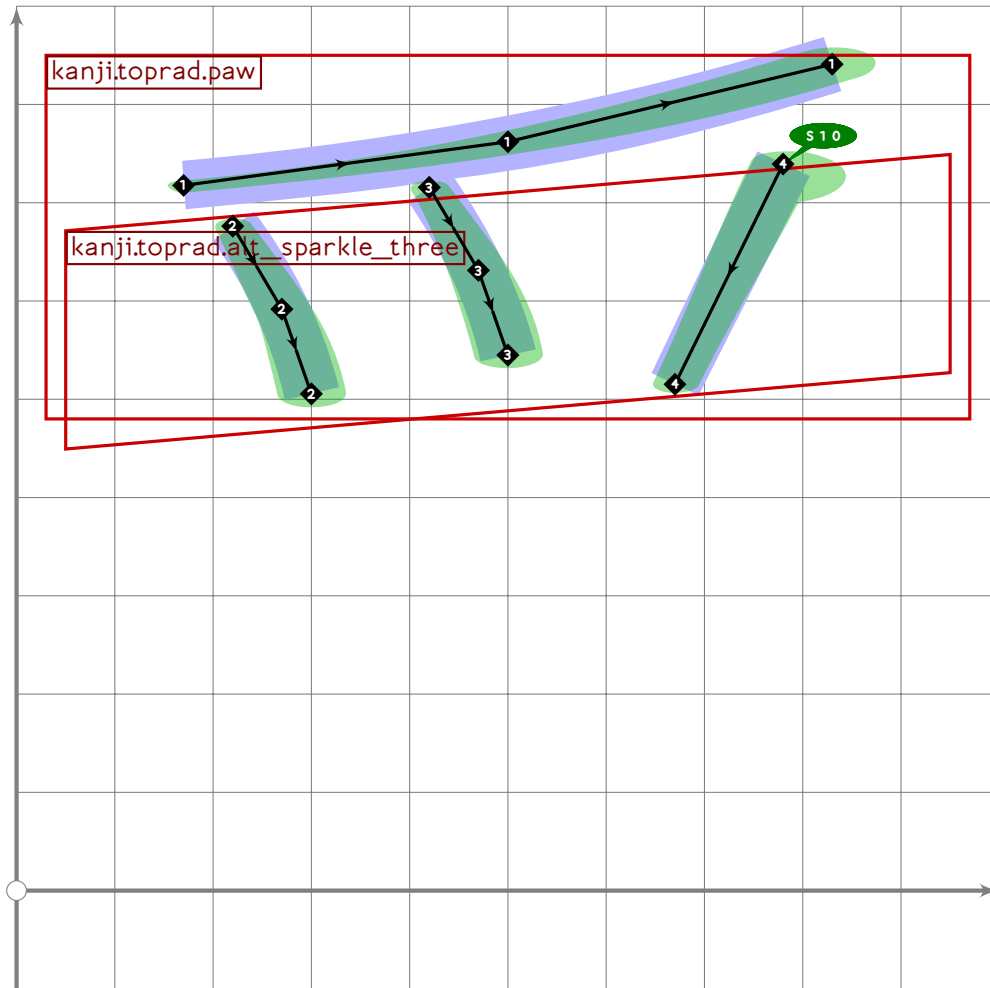
134 % water radical variant
135 beginsuglyph("uni2EA2";162);
136   kanji.radical.alt_water;
137   tsu_render;
138 endsuglyph;
139

```

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
```



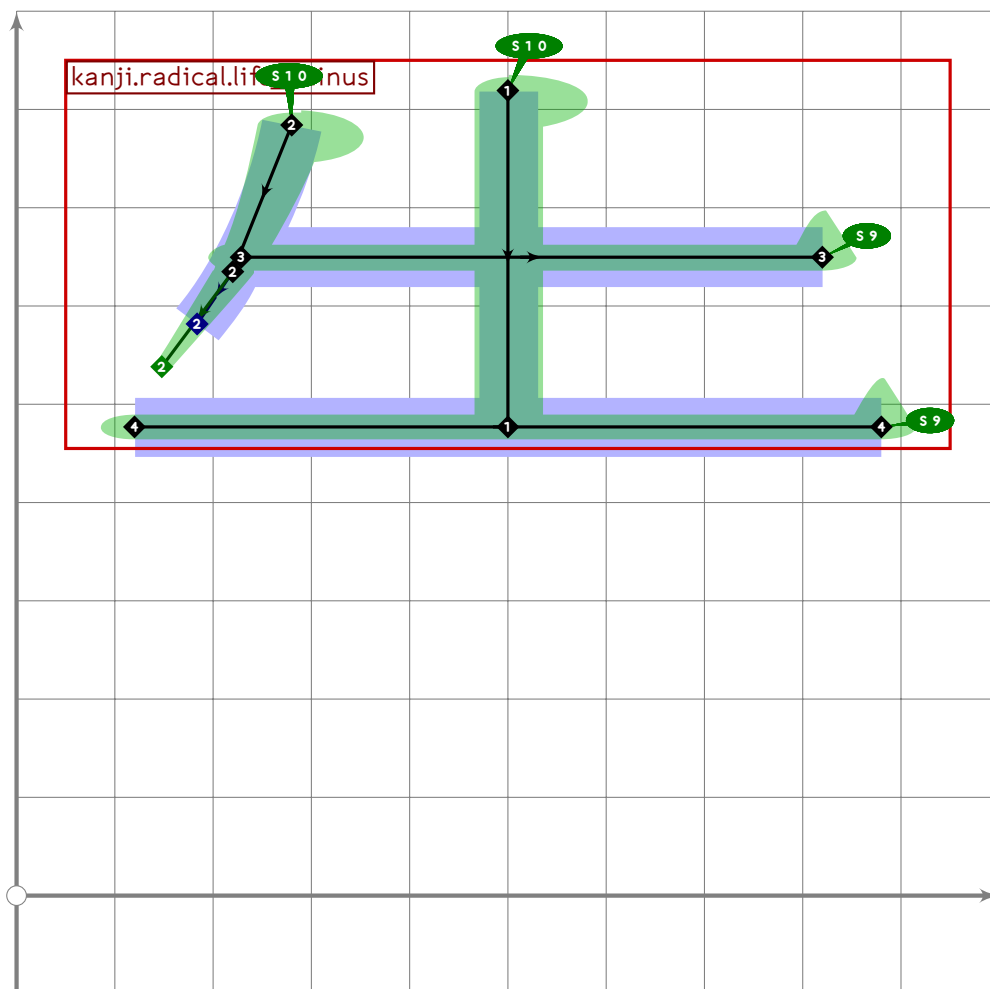
```

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

```

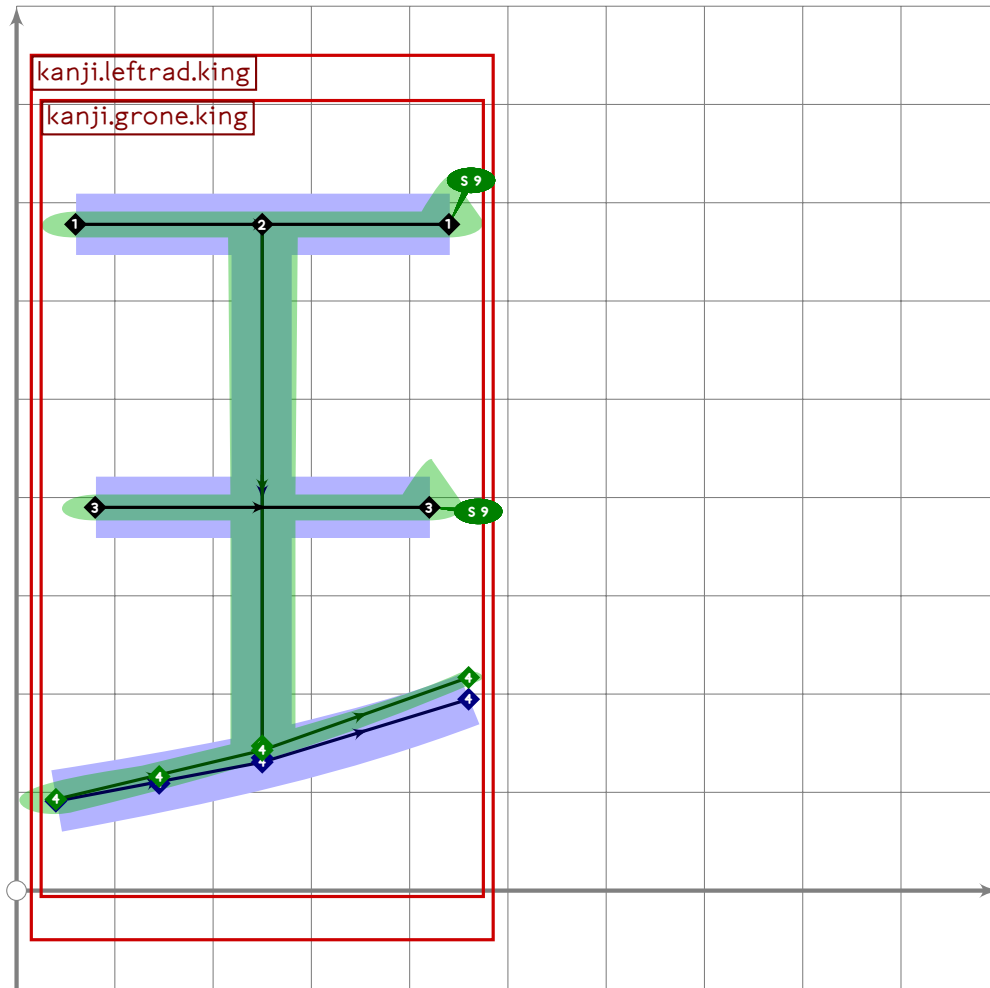


U+2EA7  
tsuku.uni2EA7



```
156 % Unicode calls it "cow"  
157 begint Suglyph("uni2EA7",167);  
158   build_kanji.tb(440,30)  
159     (kanji.radical.life_minus)  
160     ();  
161   tsu_render;  
162 endtsuglyph;  
163
```

2E

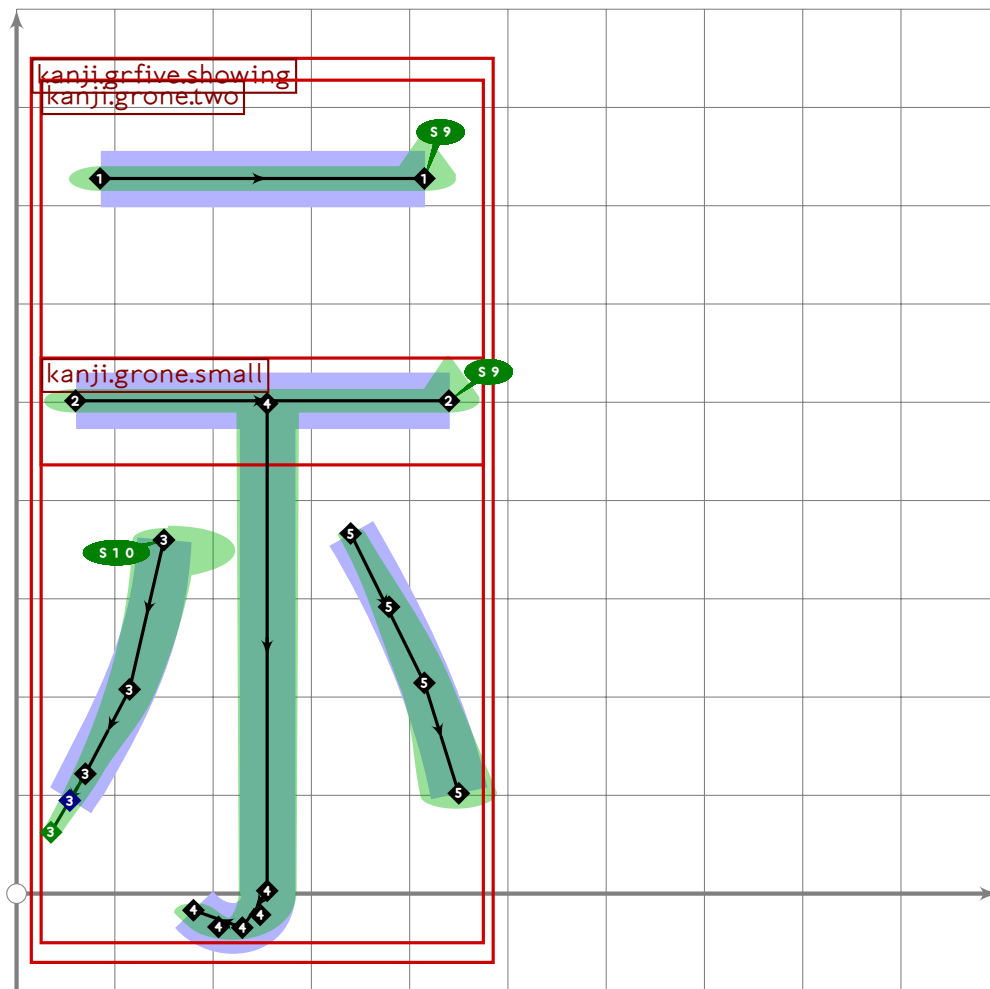


```

164 % Unicode calls it "jade"
165 begintsuglyph("uni2EA9",169);
166 tsu_xform(identity xscaled 0.5)(kanji.leftrad.king);
167 tsu_render;
168 endtsuglyph;
169

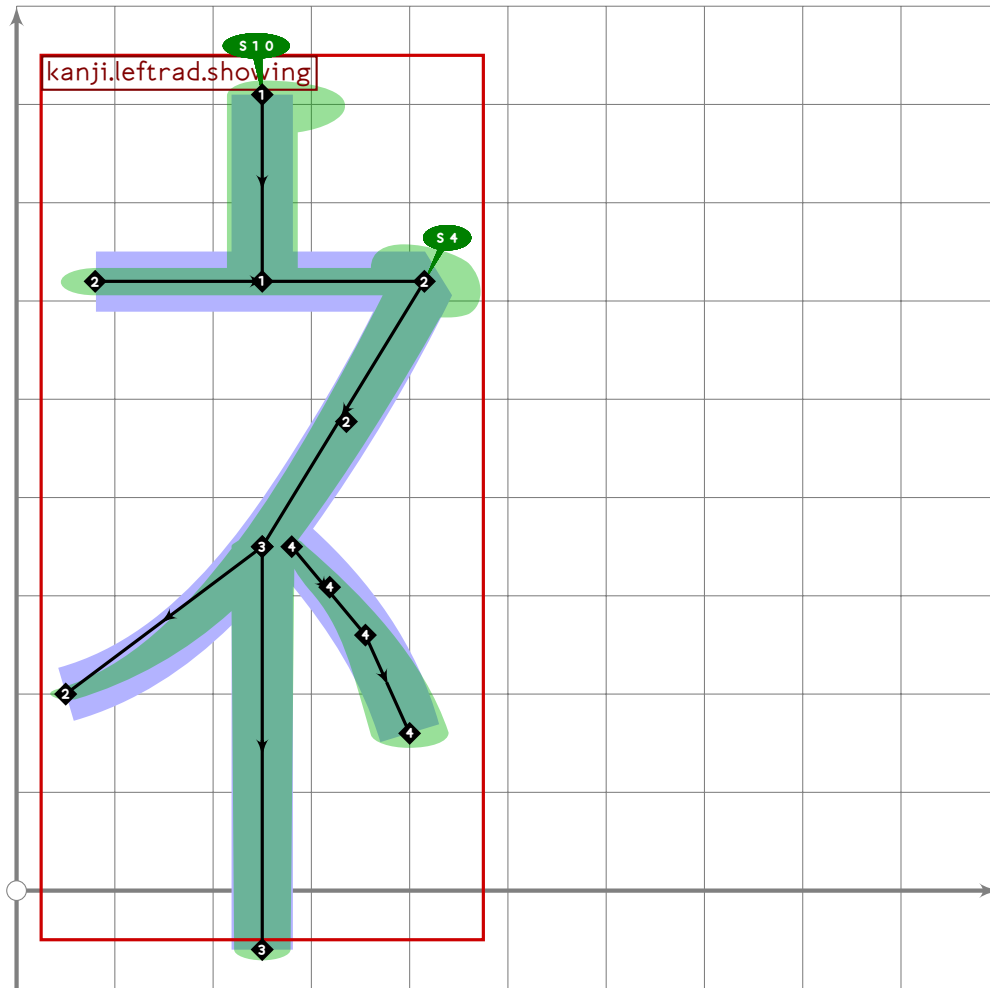
```

U+2EAC  
tsuku.uni2EAC



```
170 % Unicode calls it "spirit one"
171 begintsuglyph("uni2EAC";172);
172   tsu_xform(identity xscaled 0.5)(kanji.grfive.showing);
173   tsu_render;
174 endsuglyph;
175
```

2E

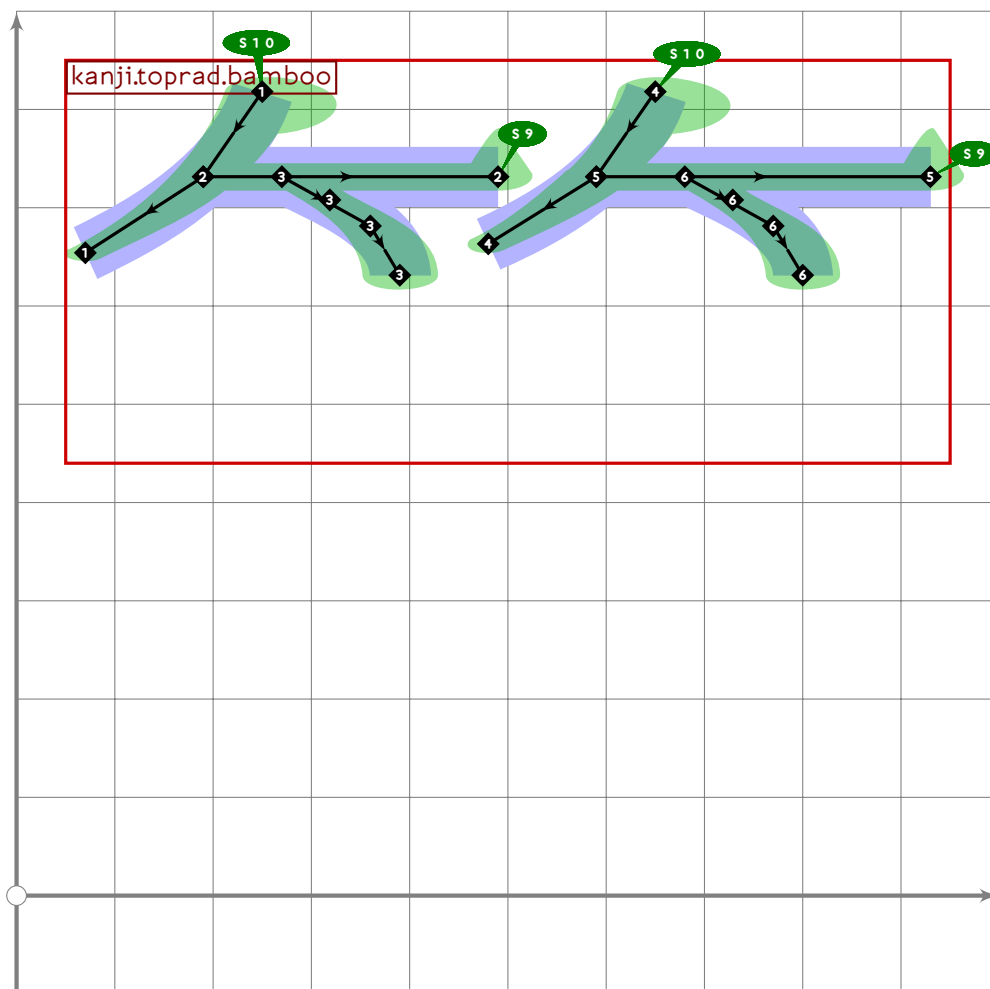


```

176 % Unicode calls it "spirit two"
177 begintsuglyph("uni2EAD";173);
178   tsu_xform(identity xscaled 0.5)(kanji.leftrad.showing);
179   tsu_render;
180 endsuglyph;
181

```

U+2EAE  
tsuku.uni2EAE

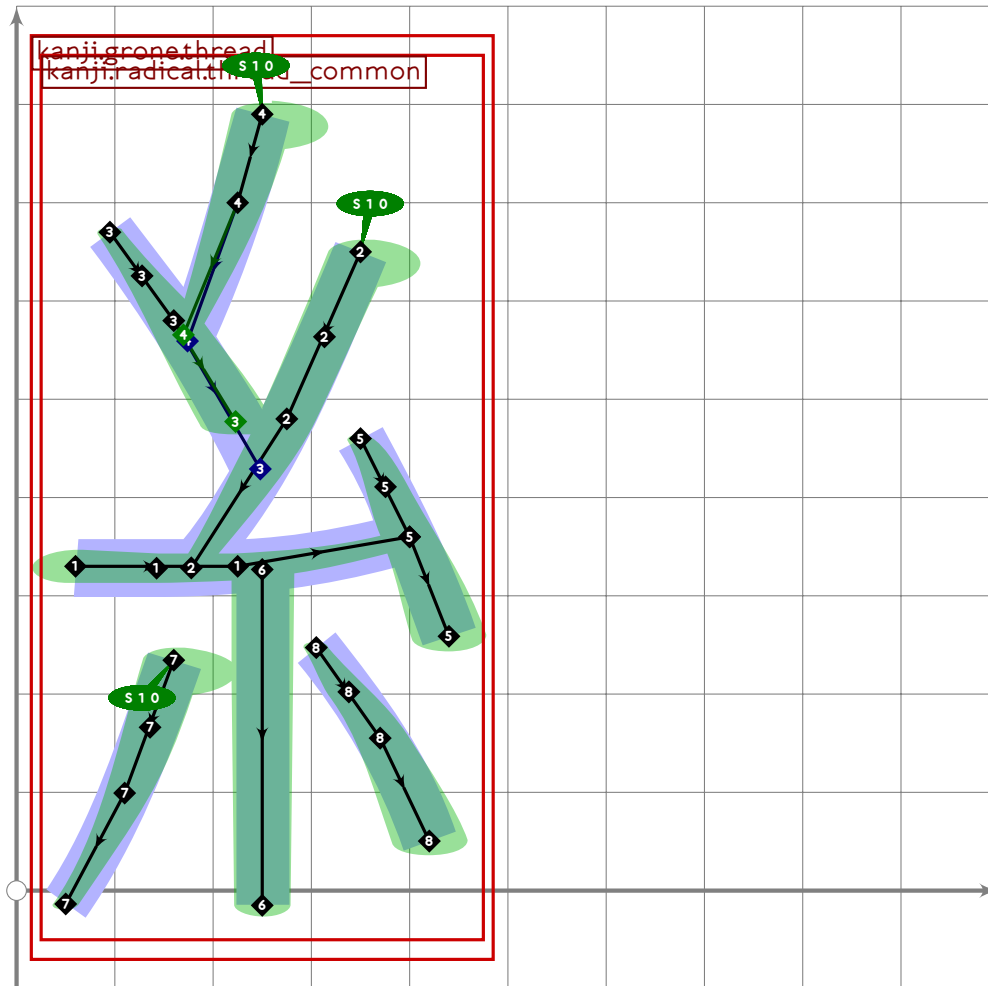


```

182 % "bamboo" top radical
183 begintsuglyph("uni2EAE";174);
184   build_kanji.tb(540,200)
185     (kanji.toprad.bamboo)
186   ();
187   tsu_render;
188 endtsuglyph;
189

```

2E

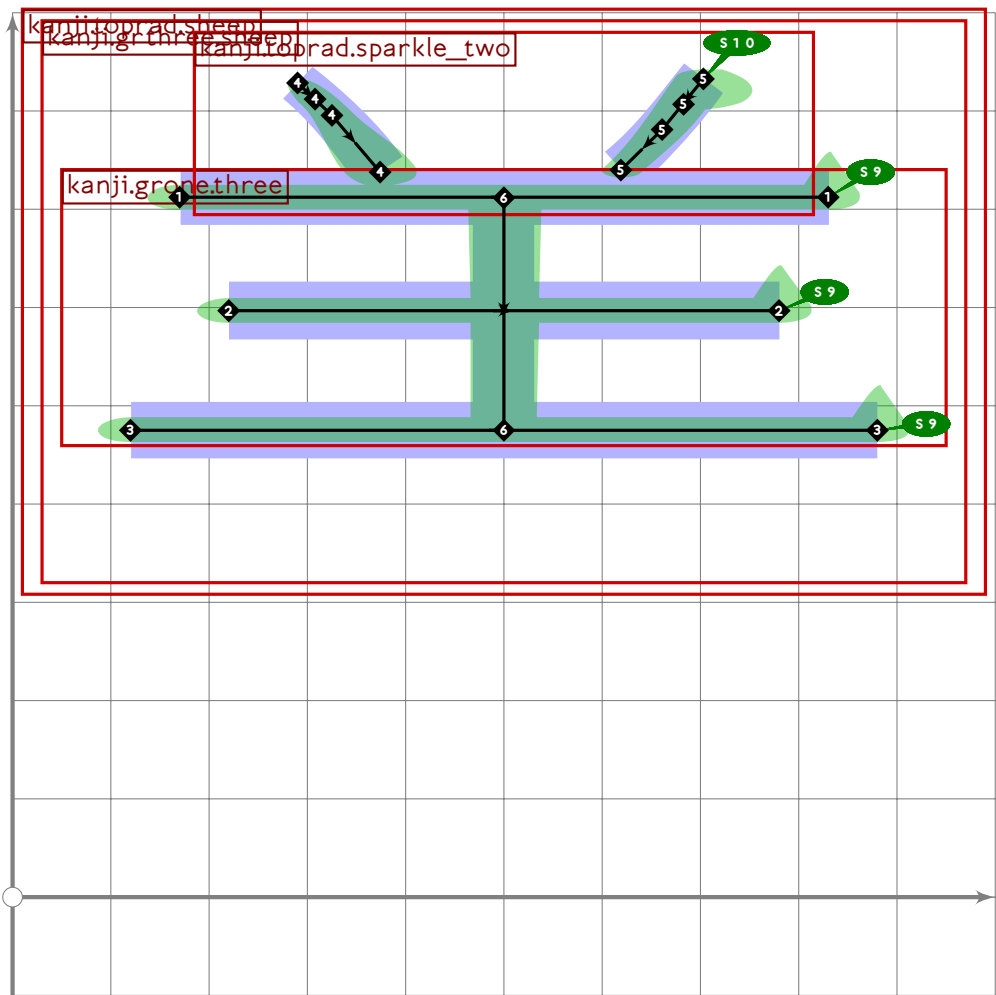


```

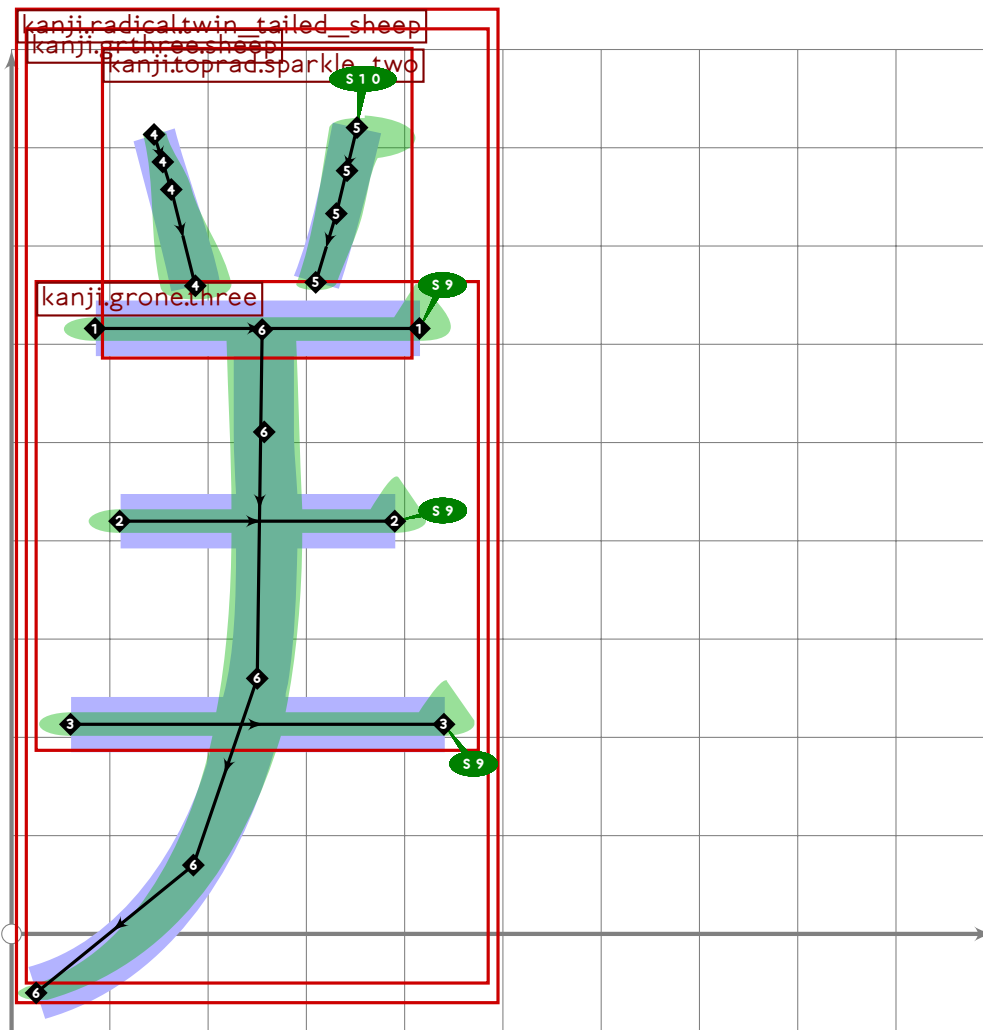
190 % Unicode calls it "silk"
191 begintsuglyph("uni2EAF";175);
192   tsu_xform(identity xscaled 0.5)
193     (build_kanji.lift_skirt(300,60)(kanji.grone.thread));
194   tsu_render;
195 endtsuglyph;
196

```

U+2EB7  
tsuku.uni2EB7



```
197 % "sheep" (ram) top radical
198 begintsuglyph("uni2EB7",183);
199   build_kanji.tb(420,200)
200     (kanji.toprad.sheep)
201     ();
202   tsu_render;
203 endtsuglyph;
204
```



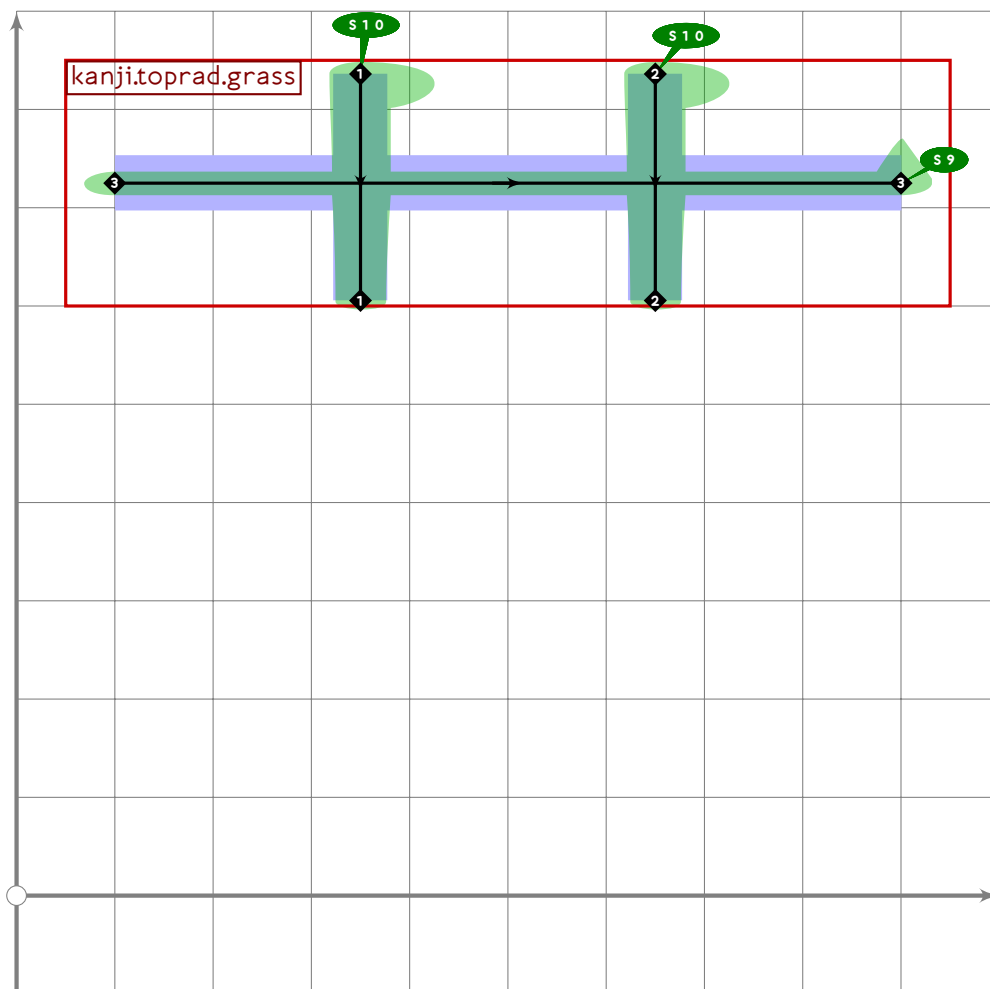
```

205 % "sheep" left-side radical
206 begintsuglyph("uni2EB8",184);
207   tsu_xform(identity xscaled 0.5)
208     (kanji.radical.twin_tailed_sheep;
209       pop_stroke);
210   tsu_render;
211 endtsuglyph;
212

```



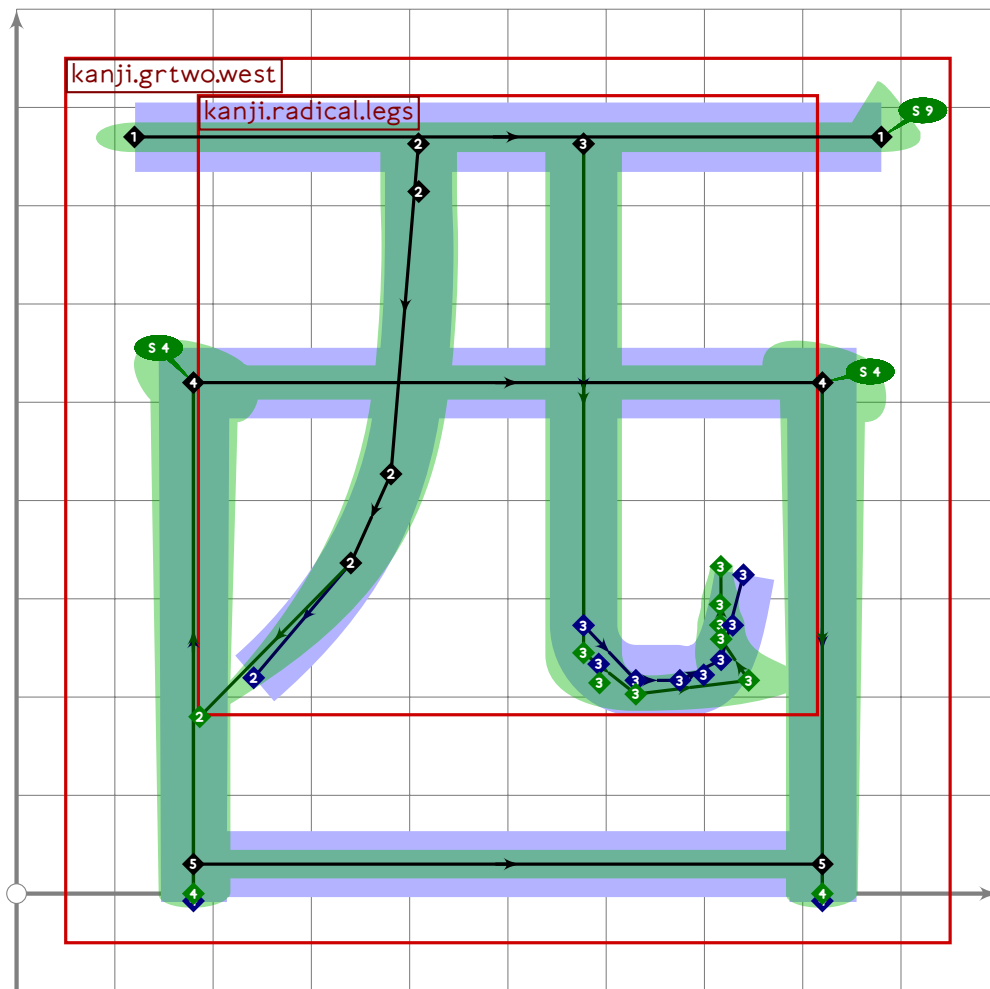
U+2EBE  
tsuku.uni2EBE



```

213 % Japanese form of "grass" top radical
214 beginsuglyph("uni2EBE",190);
215   build_kanji.tb(600,0)
216     (kanji.toprad.grass)
217   ();
218   tsu_render;
219 endtsuglyph;
220

```

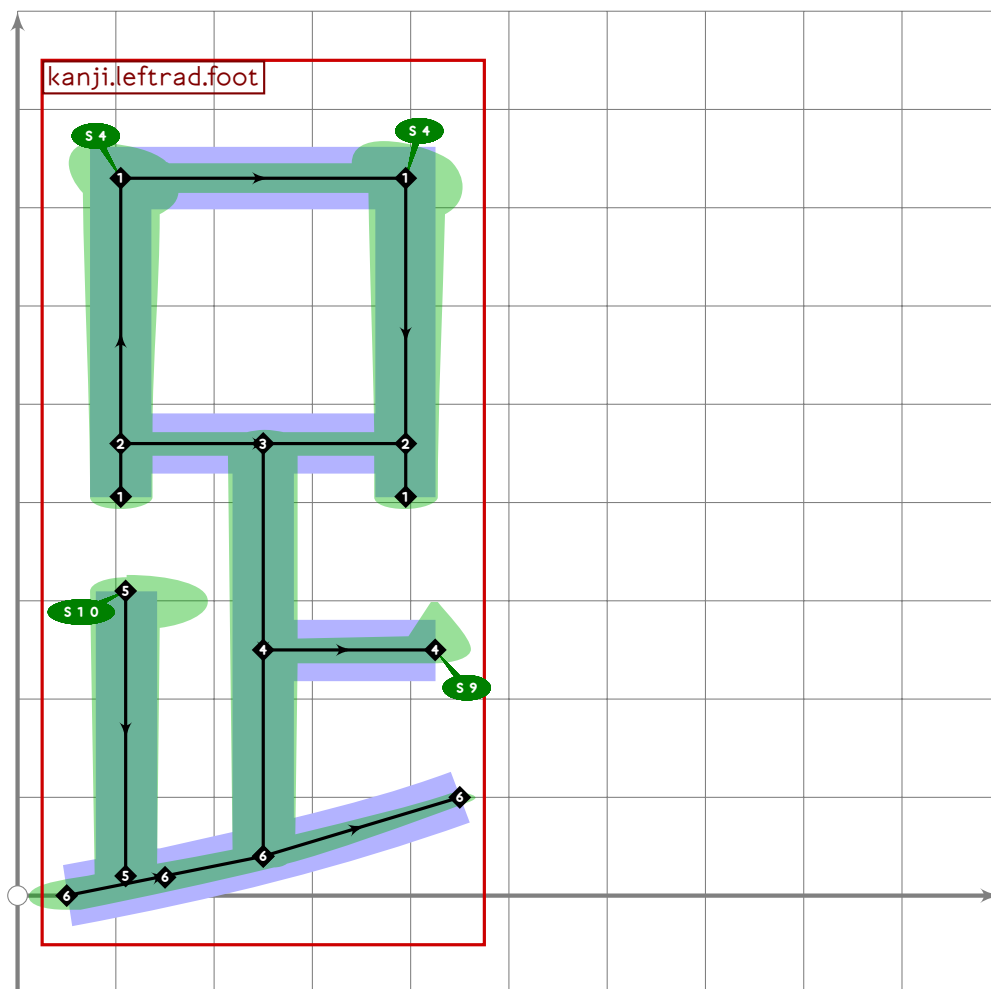


```

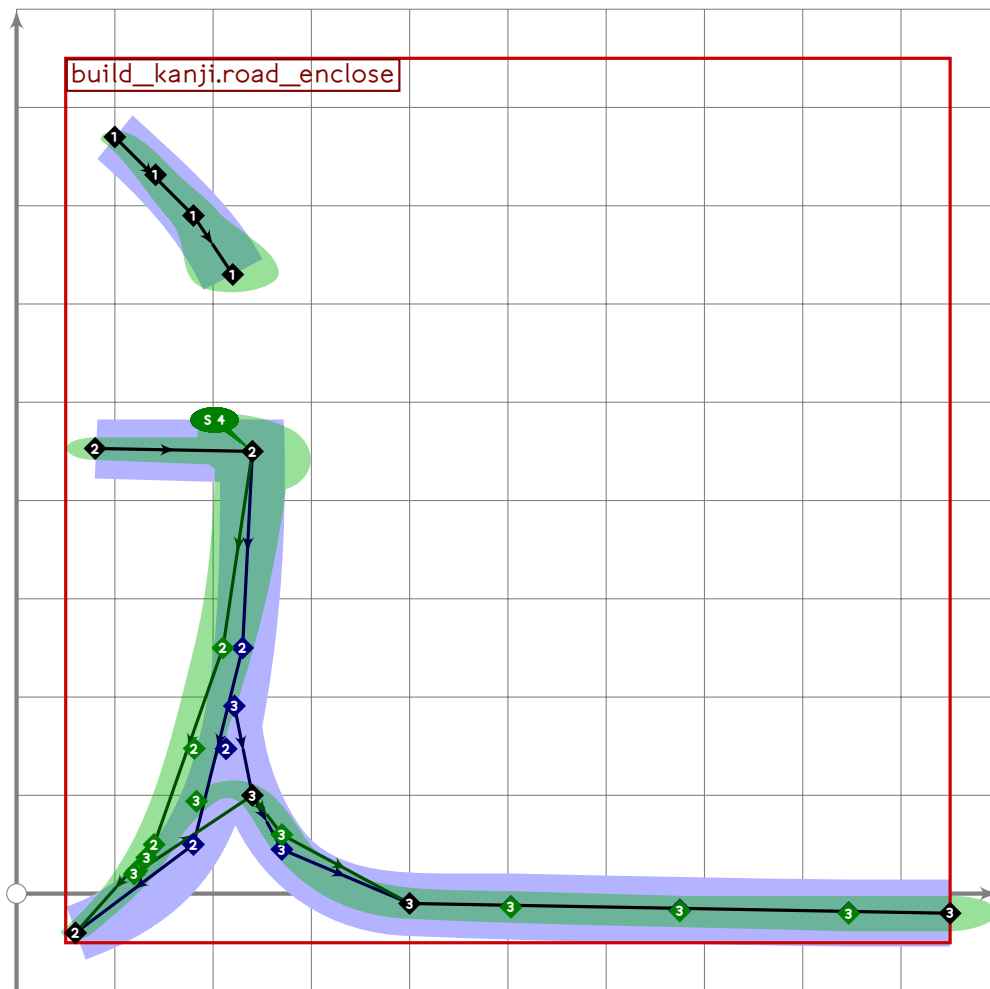
221 % sai/nishi "West" or "Spain"
222 begintsuglyph("uni2EC4",196);
223   kanji.grtwo.west;
224   tsu_render;
225 endtsuglyph;
226

```

U+2ECA  
tsuku.uni2ECA



```
227 % foot radical
228 begintsuglyph("uni2ECA";202);
229 tsu_xform(identity xscaled 0.5)(kanji.leftrad.foot);
230 tsu_render;
231 endtsuglyph;
232
```

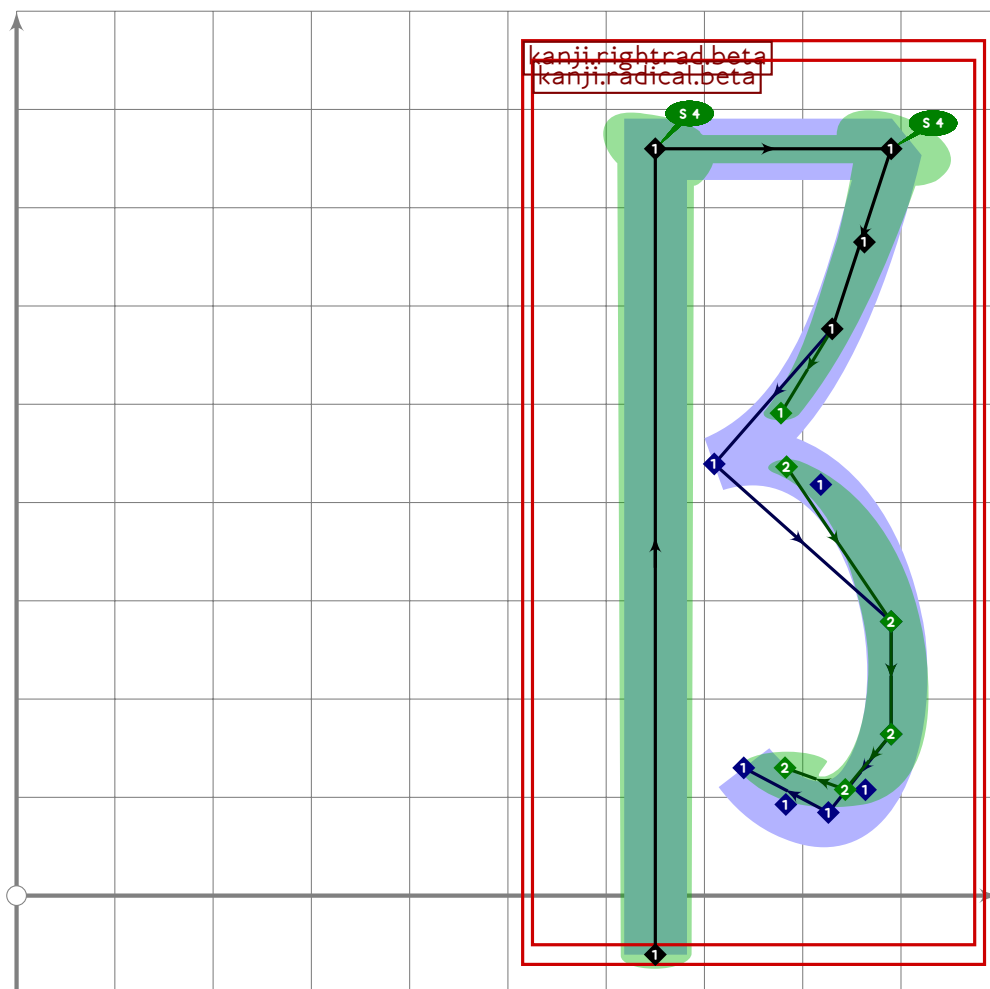


```

233 % Unicode calls it "simplified walk"
234 begintsuglyph("uni2ECC";204);
235   build_kanji.road_enclose();
236   tsu_render;
237 endtsuglyph;
238

```

U+2ECF  
tsuku.uni2ECF

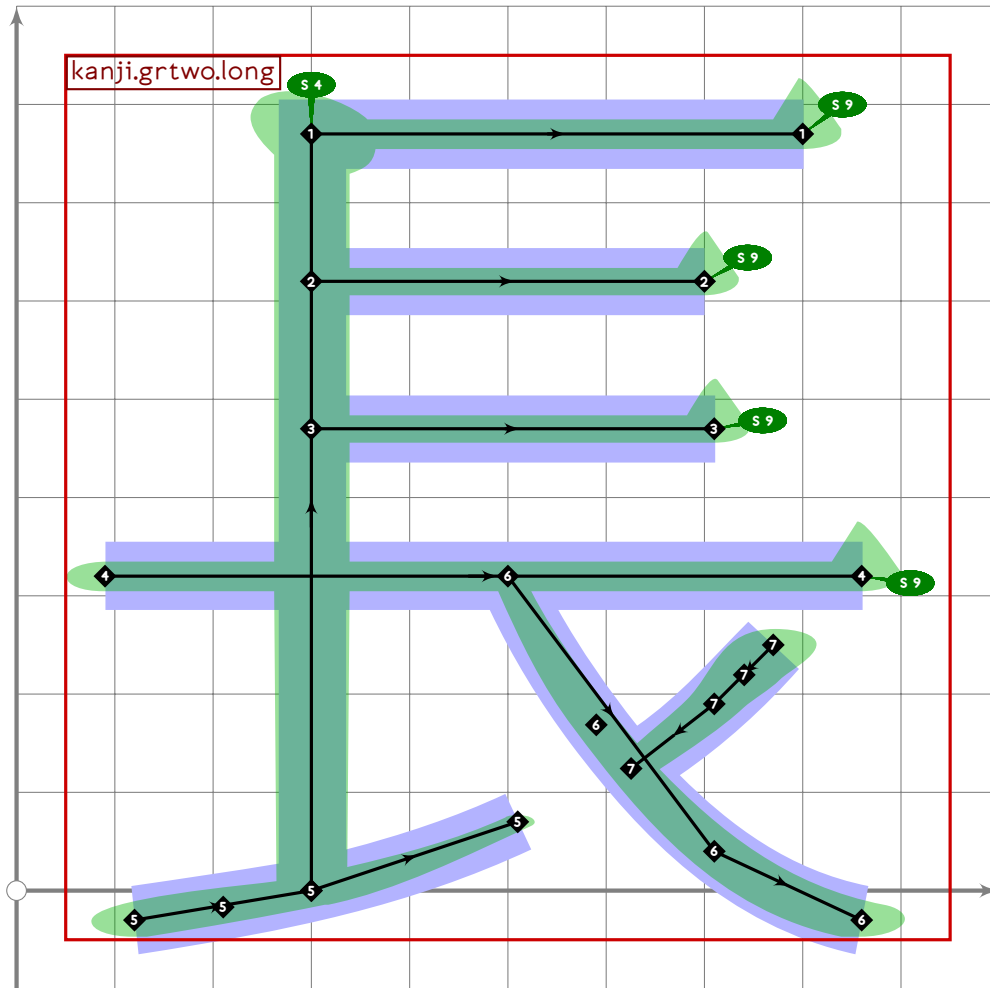


```

239 % Unicode calls it "city"
240 begint Suglyph("uni2ECF";207);
241   tsu_xform(identity xscaled 0.5 shifted (500,0))
242     (kanji.rightrad.beta);
243   tsu_render;
244 endtsuglyph;
245

```

2E

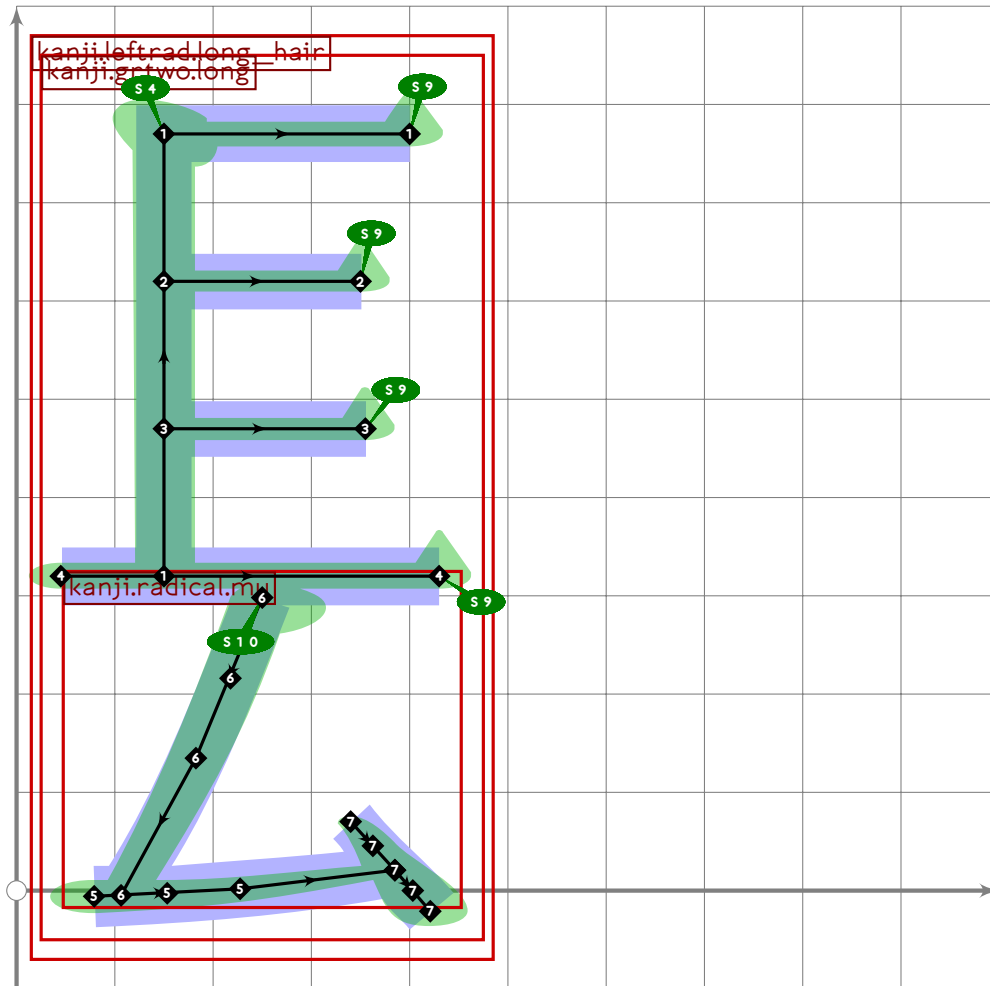


```

246 % chou/naga "long"
247 begintsuglyph("uni2ED1",209);
248   kanji.grtwo.long;
249   tsu_render;
250 endtsuglyph;
251

```

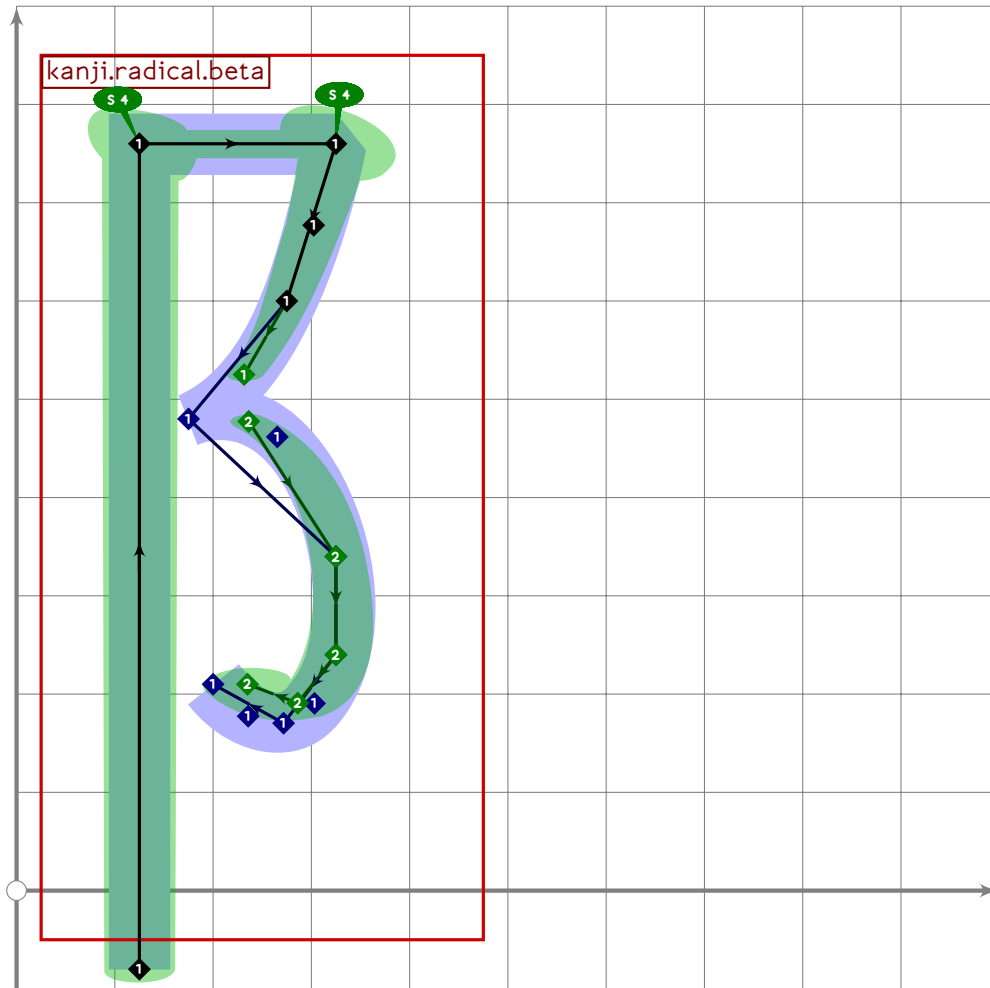
U+2ED2  
tsuku.uni2ED2



```

252 % Unicode calls it "long two"
253 beginsuglyph("uni2ED2";210);
254   tsu_xform(identity xscaled 0.5)(kanji.leftrad.long_hair);
255   tsu_render;
256 endsuglyph;
257

```



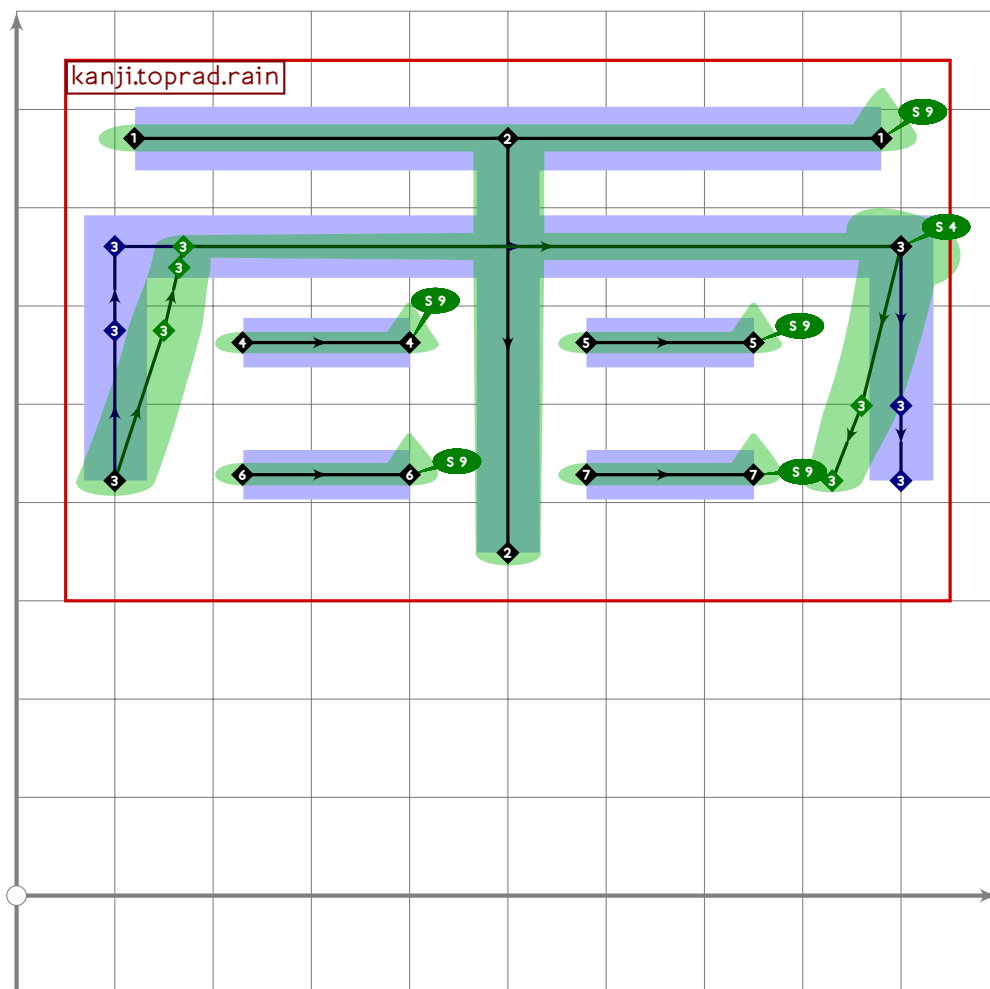
```

258 % Unicode calls it "mound two"
259 begintsuglyph("uni2ED6";214);
260   tsu_xform(identity xscaled 0.5)
261     (kanji.radical.beta);
262   tsu_render;
263 endtsuglyph;
264

```

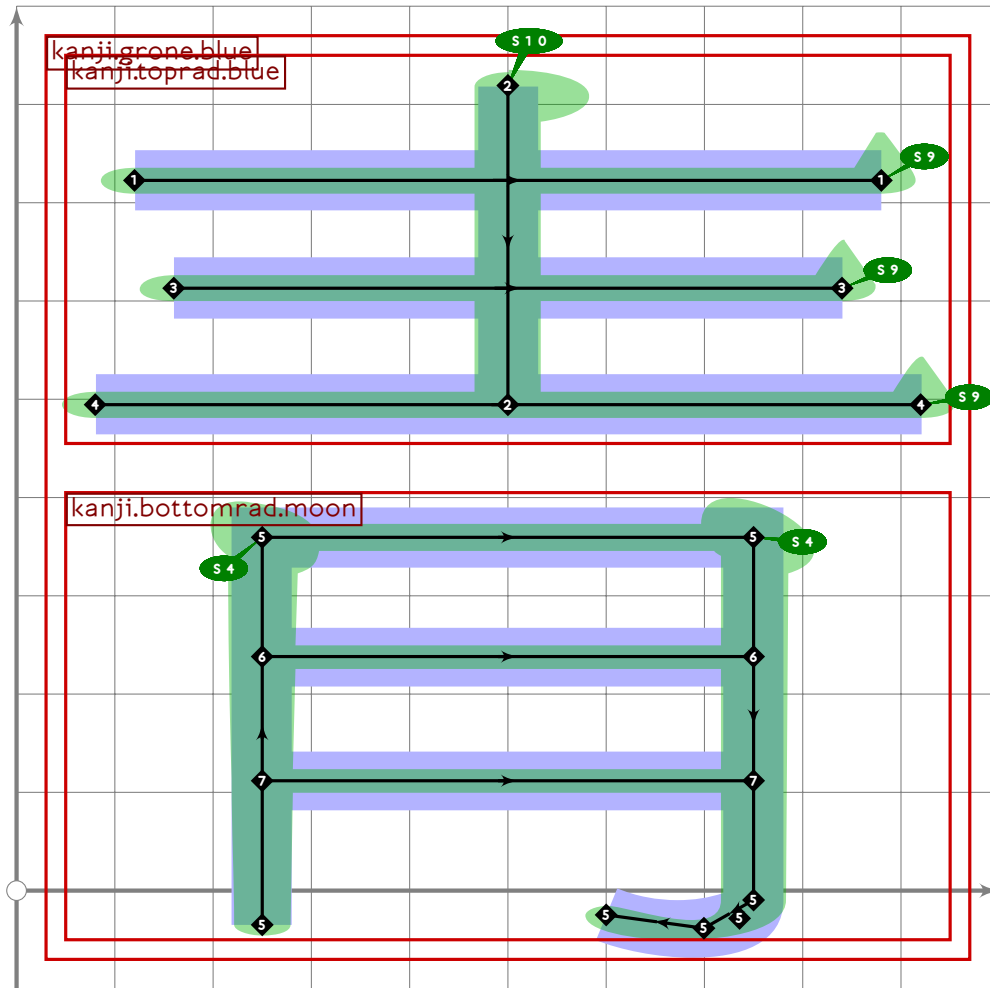


U+2ED7  
tsuku.uni2ED7



```
265 % "rain" top radical
266 begint Suglyph("uni2ED7";215);
267   build_kanji.tb(300,0)
268     (kanji.toprad.rain)
269   ();
270   tsu_render;
271 endtsuglyph;
272
```

2E

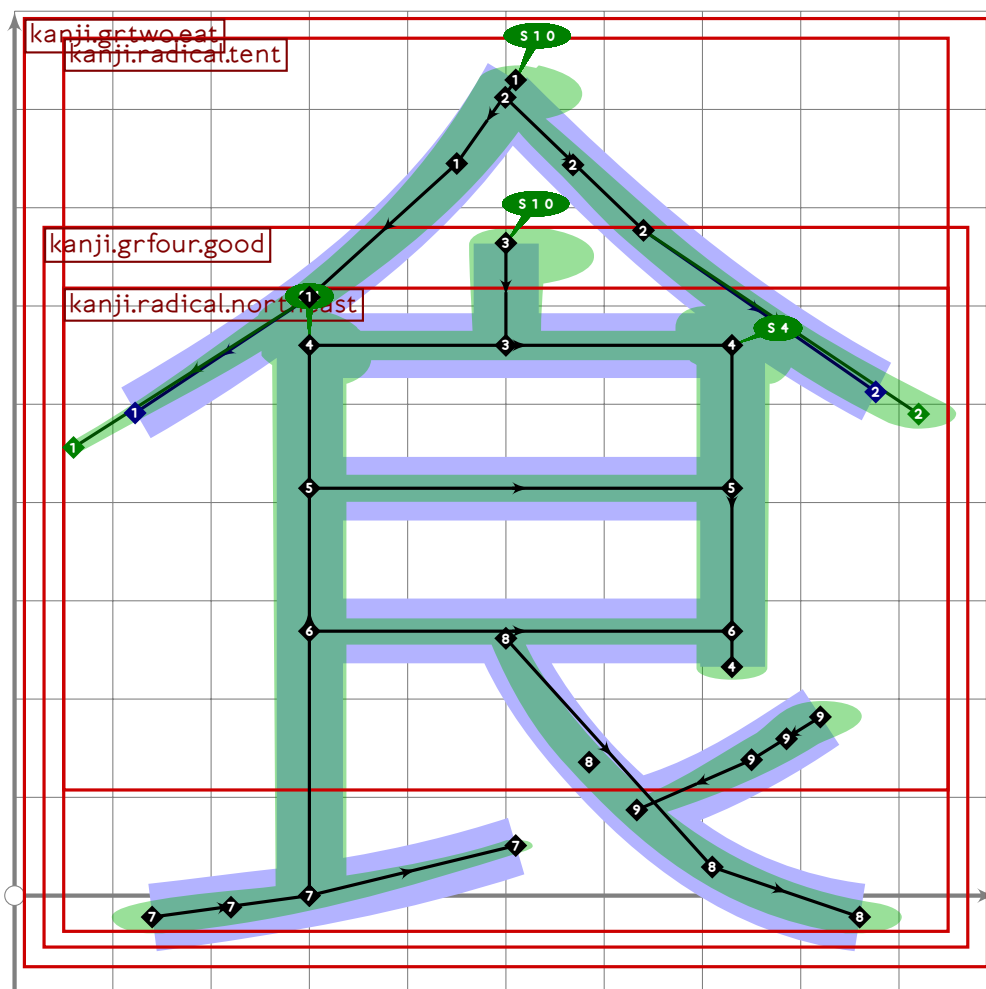


```

273 % ao "blue"
274 begintsuglyph("uni2ED8";216);
275   kanji.grone.blue;
276   tsu_render;
277 endtsuglyph;
278

```

U+2EDD  
tsuku.uni2EDD

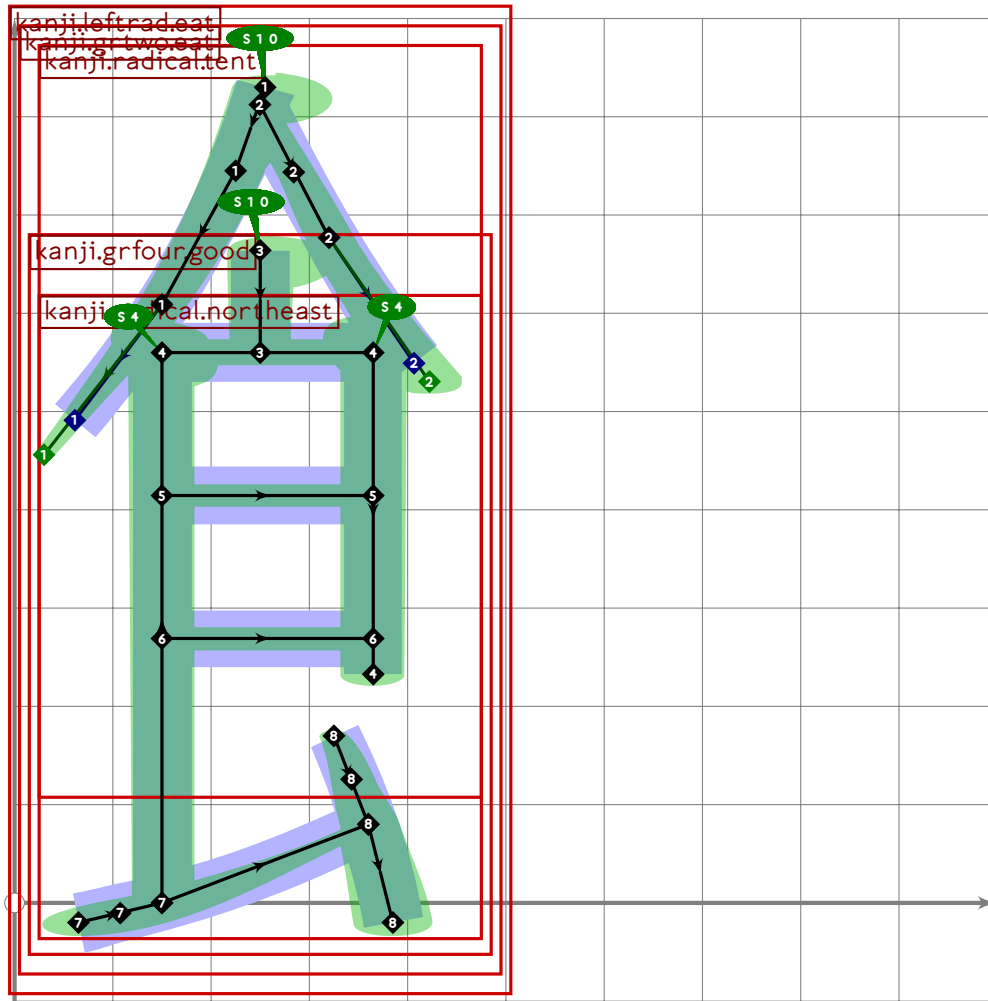


```

279 % shoku/ta "eat"
280 begintsuglyph("uni2EDD";221);
281   kanji.grtwo.eat;
282   tsu_render;
283 endtsuglyph;
284

```

2E

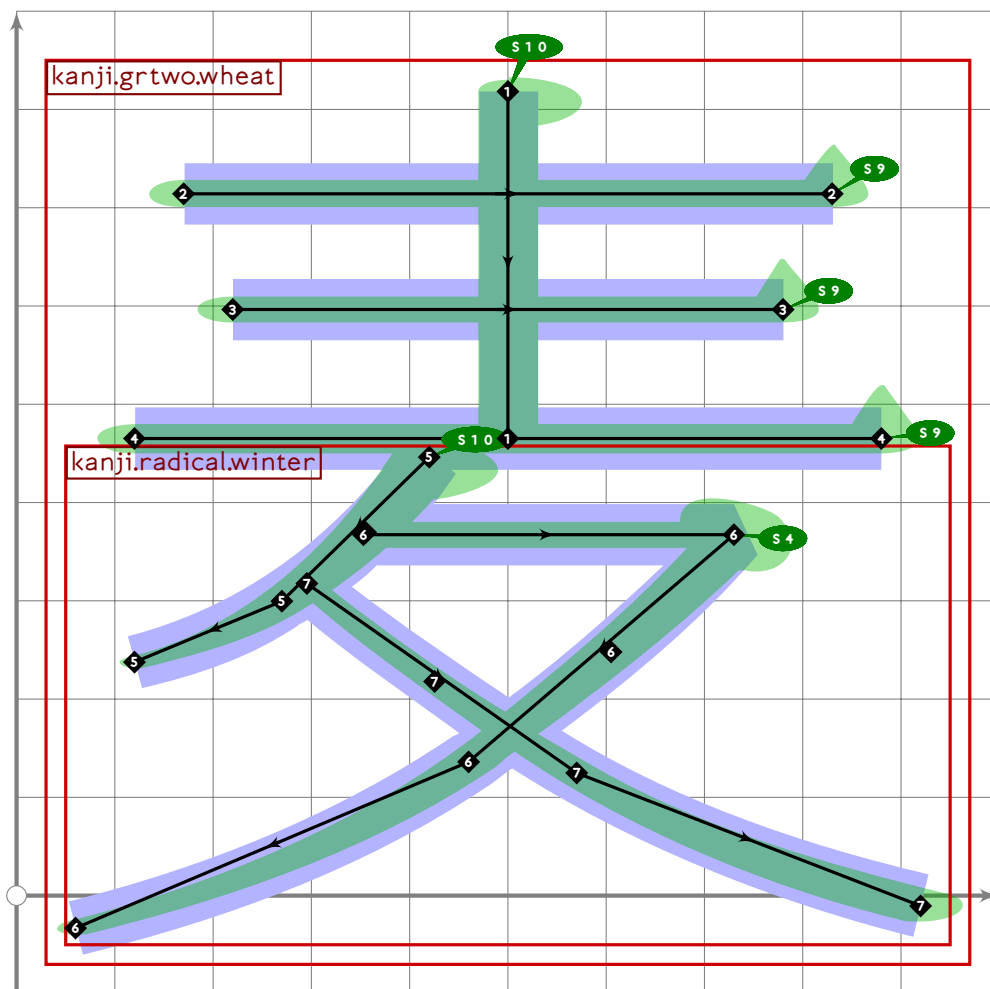


```

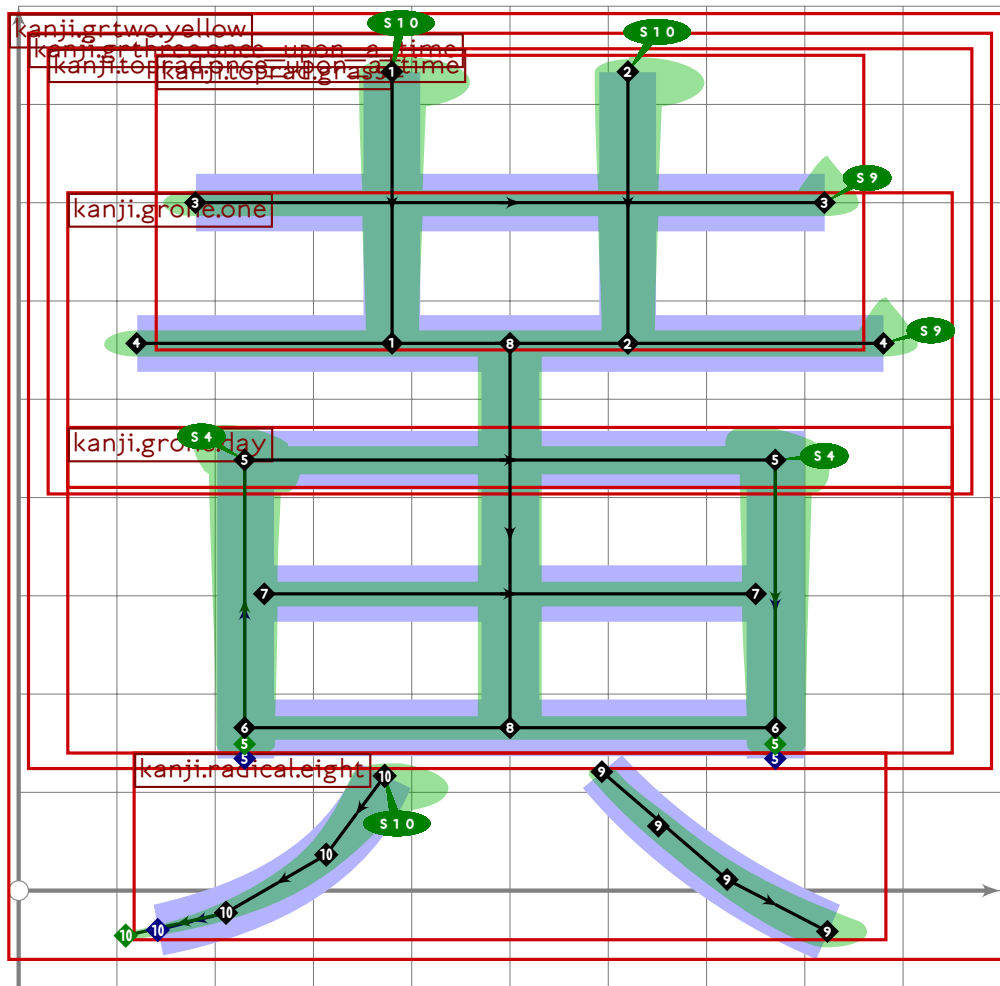
285 % simplified "eat" for use as radical
286 begintsuglyph("uni2EDF";223);
287   tsu_xform(identity xscaled 0.5)(kanji.leftrad.eat);
288   tsu_render;
289 endtsuglyph;
290

```

U+2EE8  
tsuku.uni2EE8



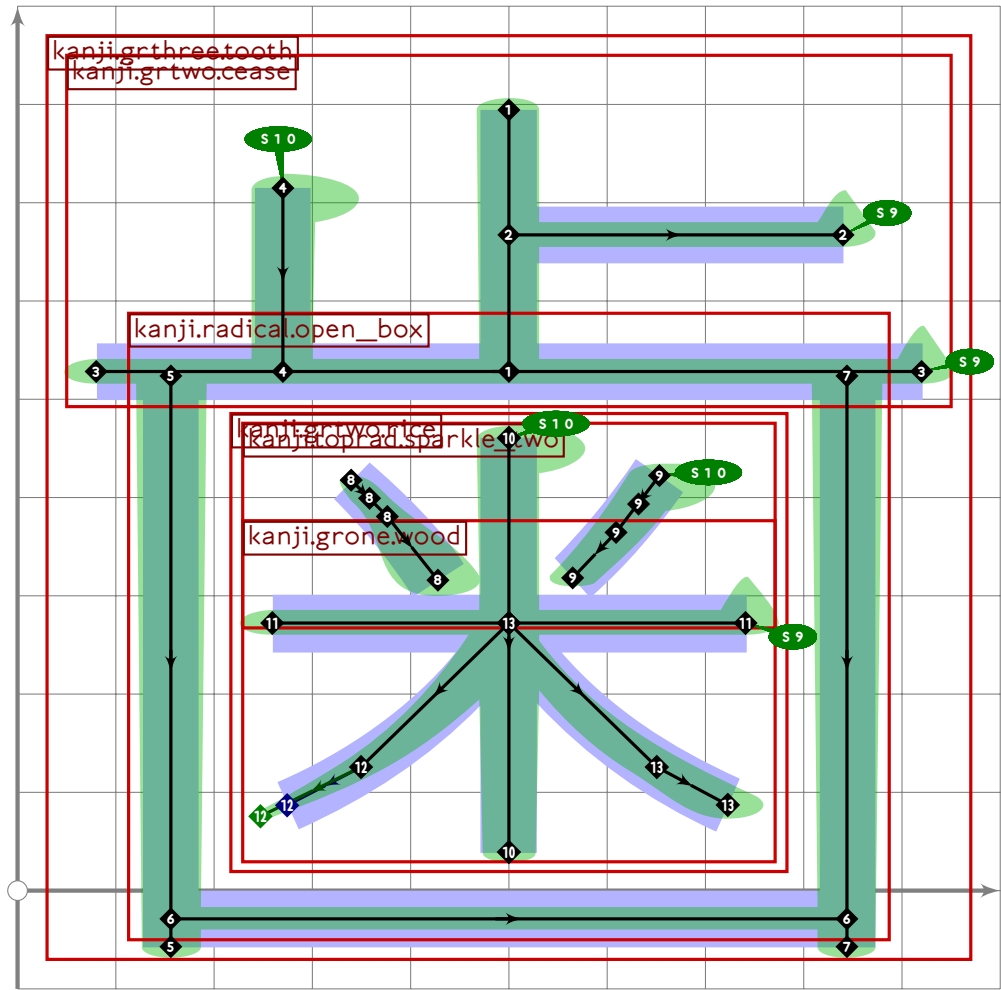
```
291 % baku/mugi "wheat"  
292 beginsuglyph("uni2EE8",232);  
293   kanji.grtwo.wheat;  
294   tsu_render;  
295 endsuglyph;  
296
```



```

297 % kou/ki "yellow"
298 begintsuglyph("uni2EE9",233);
299   kanji.grtwo.yellow;
300   tsu_render;
301 endtsuglyph;
302

```



```
303 % shi/ha "tooth"
304 begintsuglyph("uni2EED";237);
305   kanji.grthree.tooth;
306   tsu_render;
307 endsuglyph;
308
309 _____
310
311 endfont;
312
313 _____
```

# 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 

---

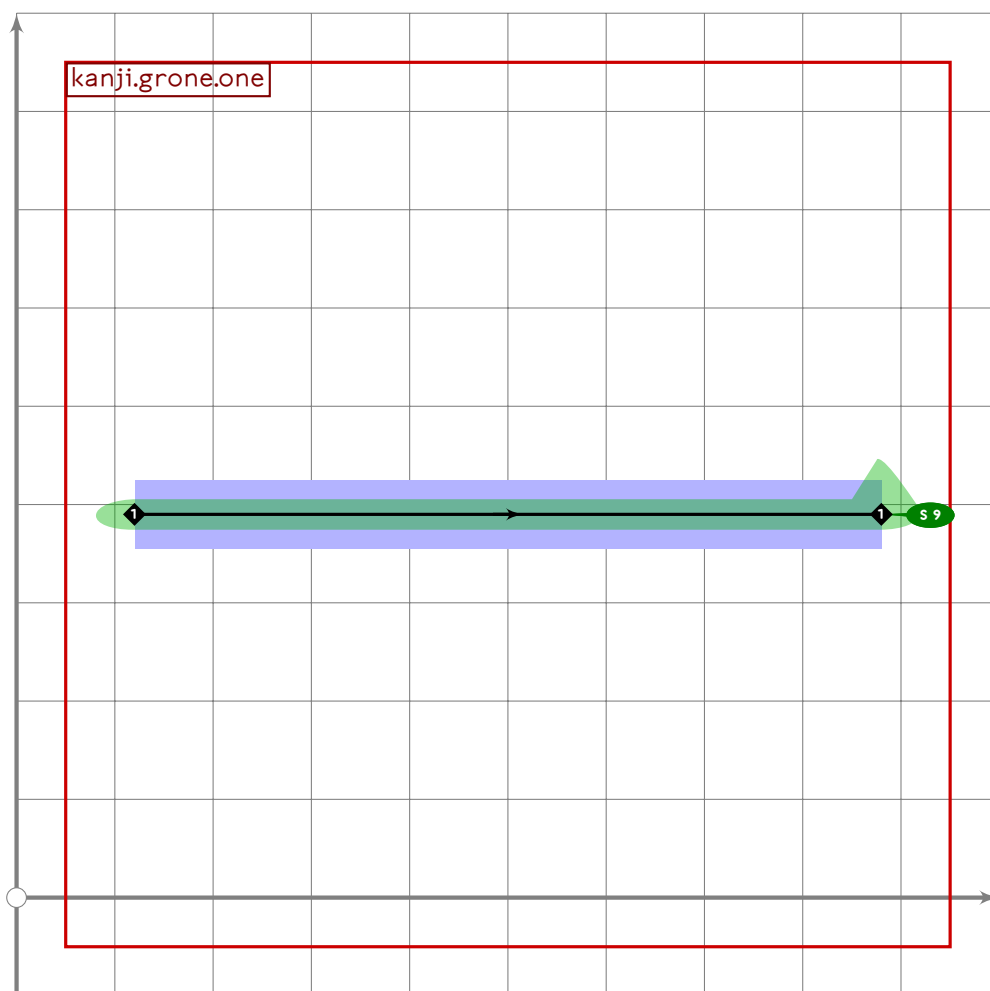

55
```

## Kangxi Radicals

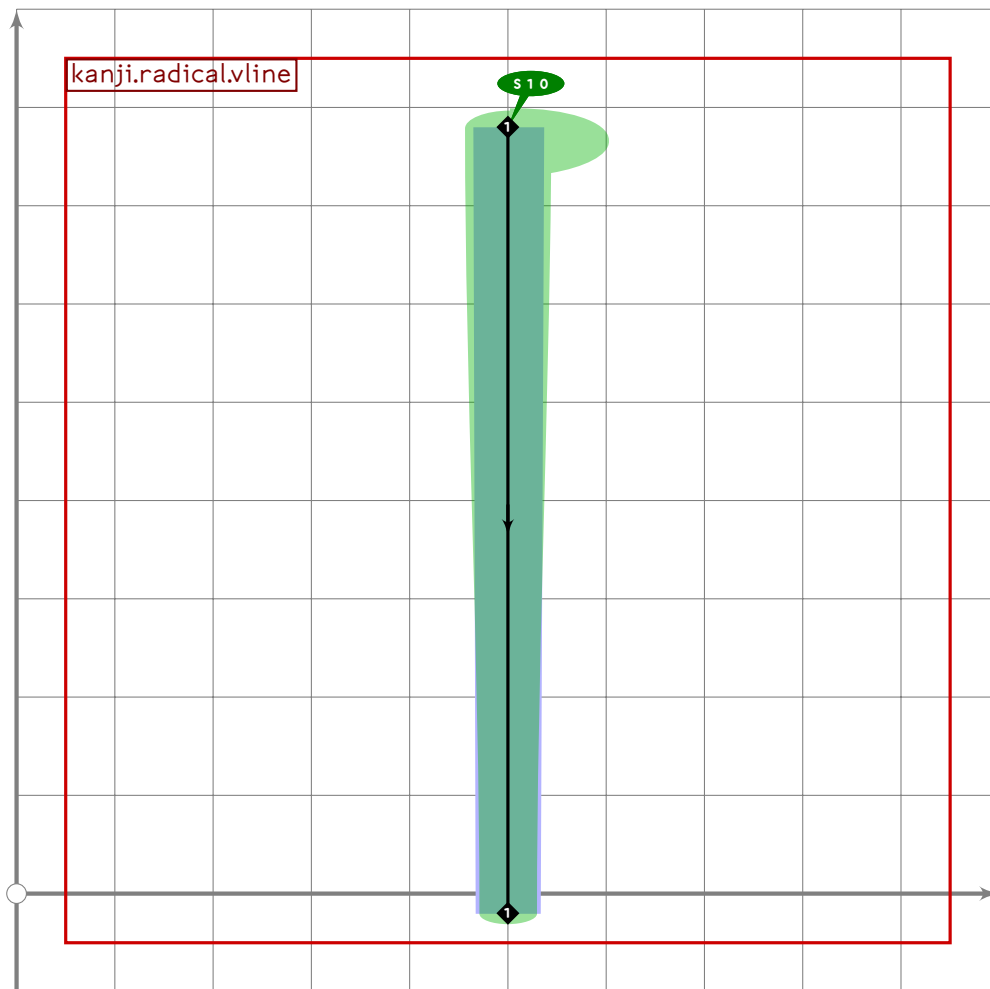
```
56 % KANGXI RADICALS
57
```



U+2F00  
tsuku.uni2F00



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

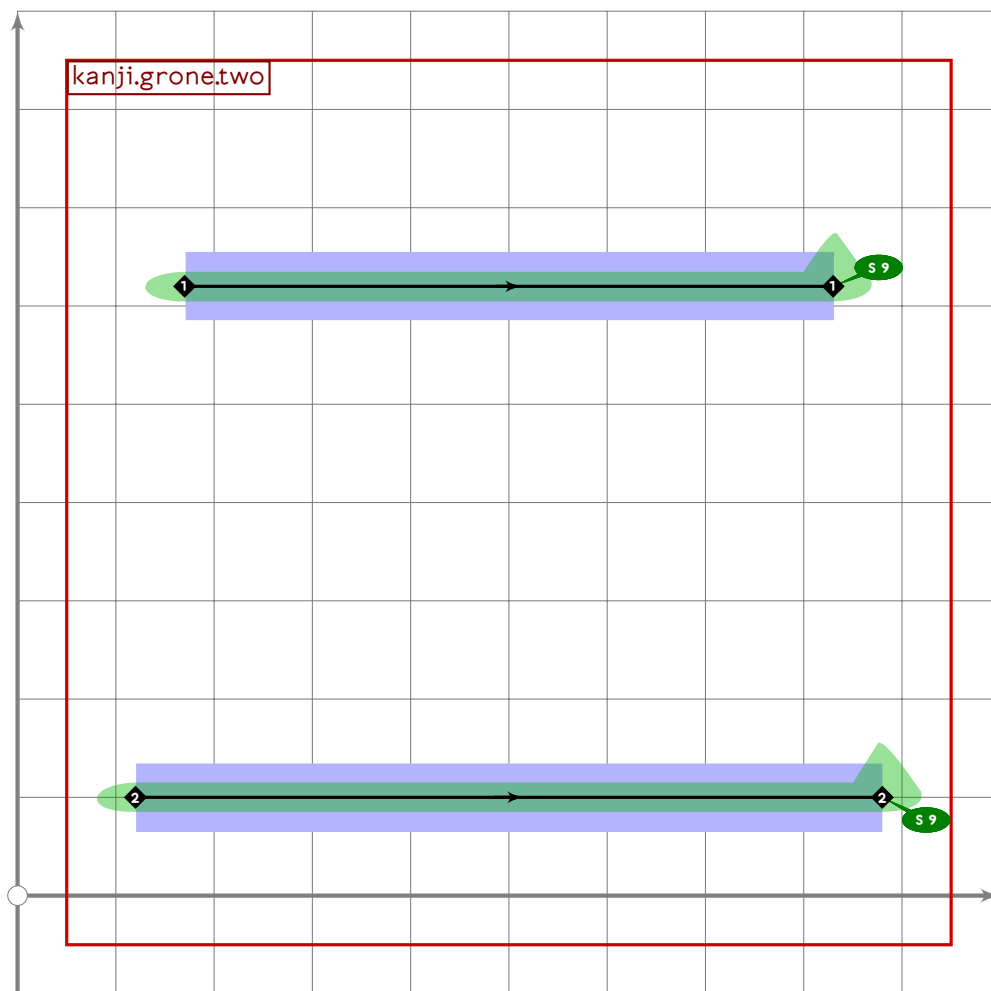


```

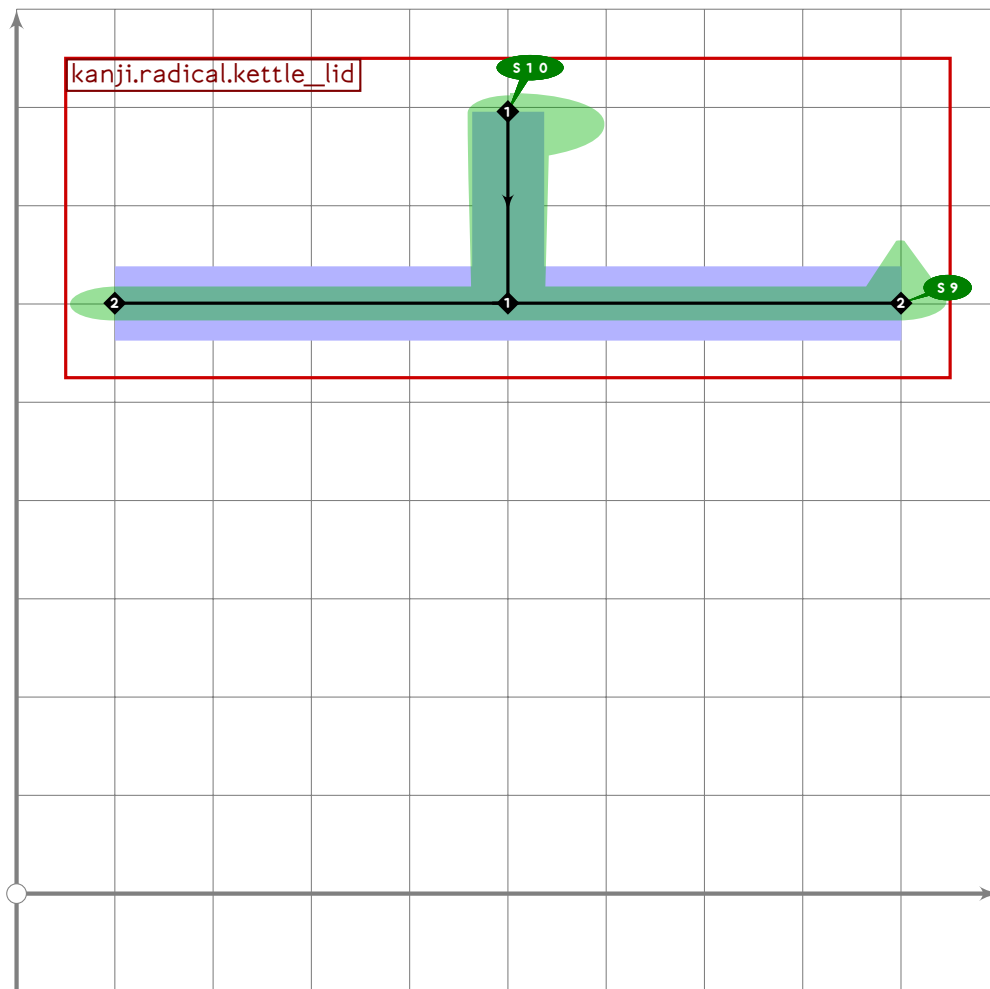
64 % extra "vertical line"
65 begintsuglyph("uni2F01";1);
66   kanji.radical.vline;
67   tsu_render;
68 endtsuglyph;
69

```

U+2F06  
tsuku.uni2F06



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

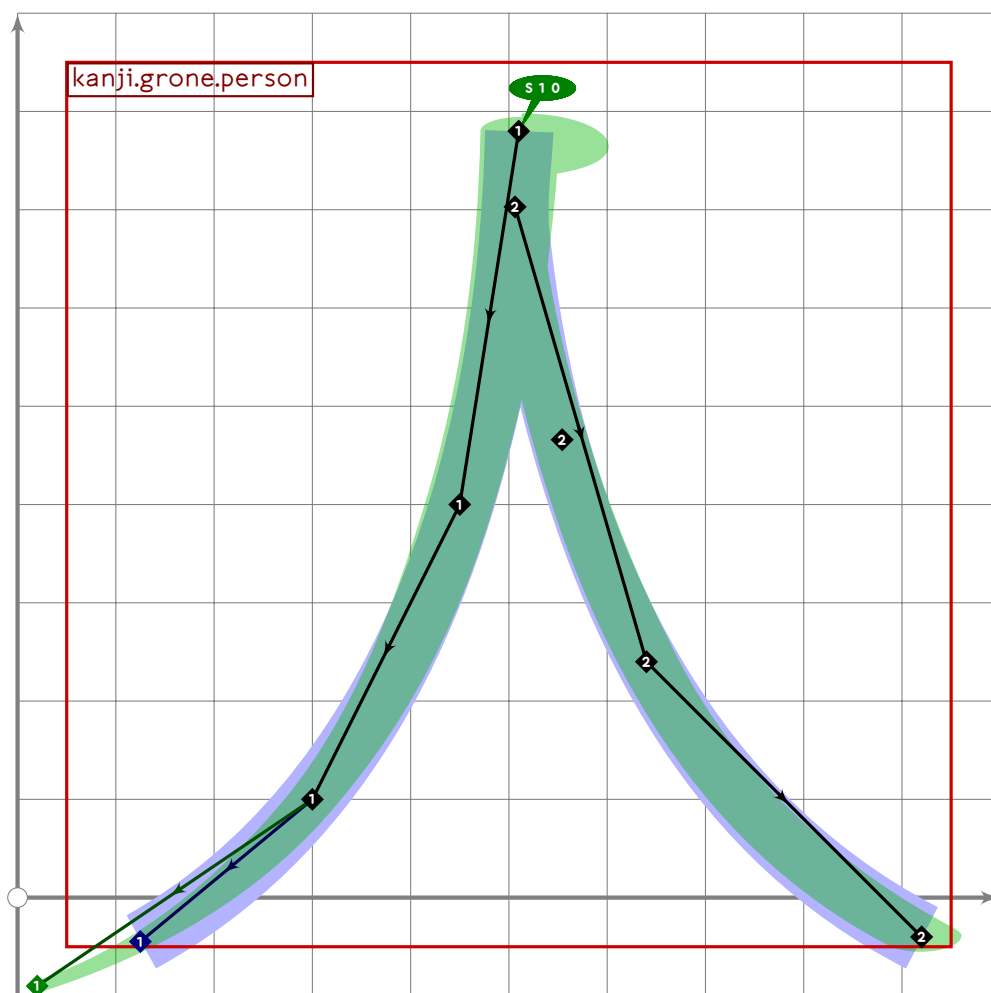


```

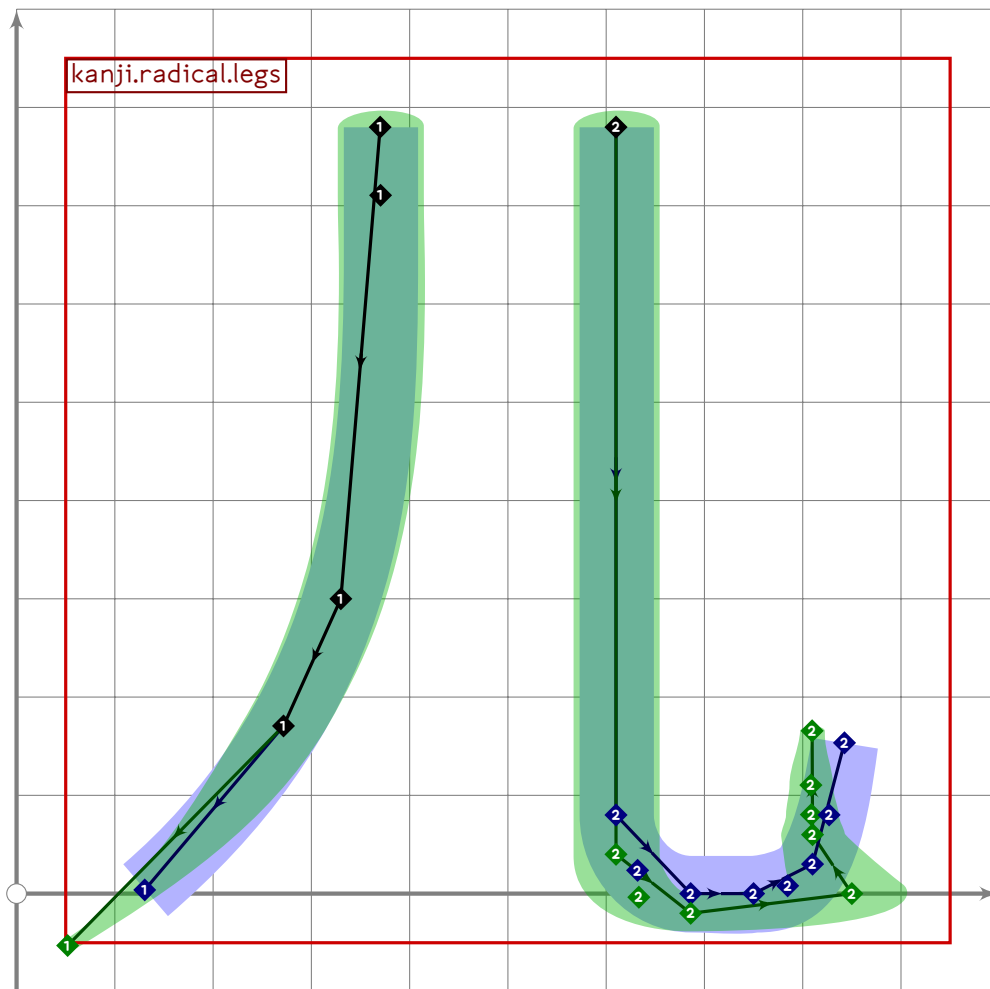
76 % "kettle lid radical"
77 begintsuglyph("uni2F07";7);
78   build_kanji.tb(500;50)
79     (kanji.radical.kettle_lid)
80   ();
81   tsu_render;
82 endtsuglyph;
83

```

U+2F08  
tsuku.uni2F08



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

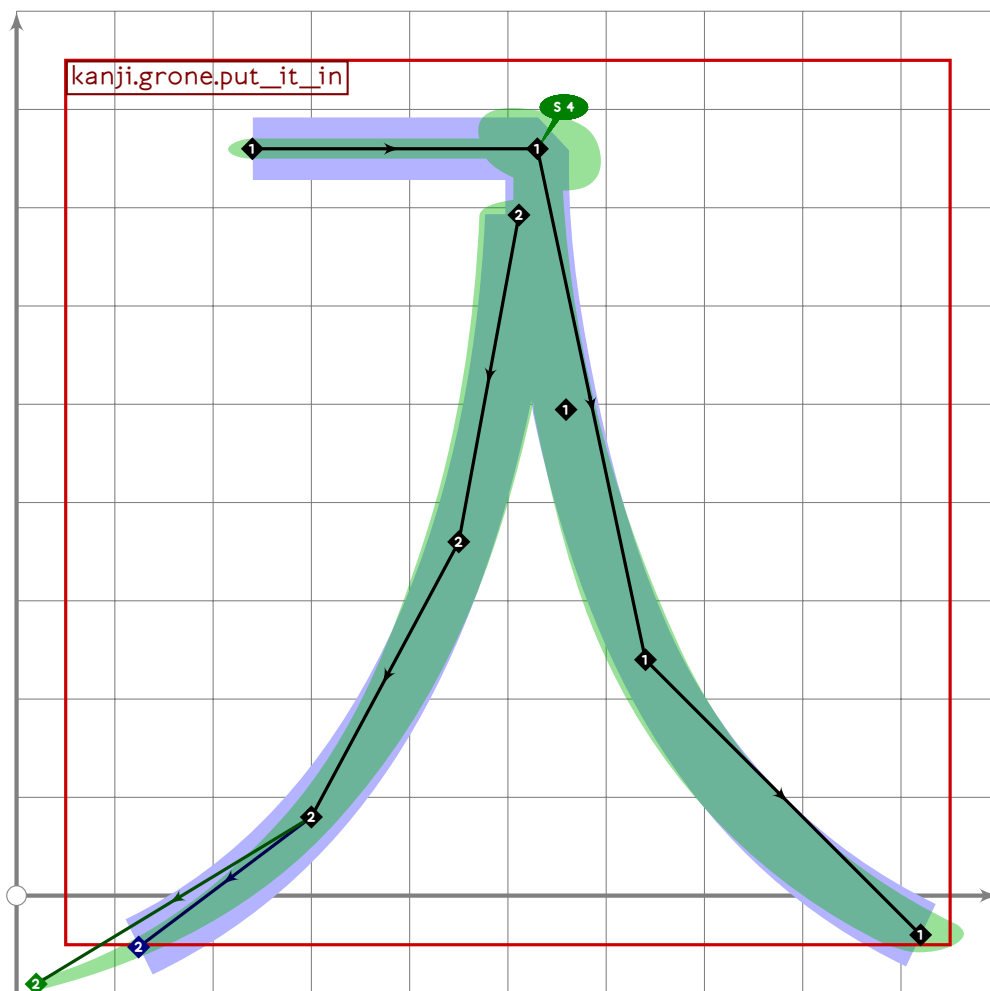


```

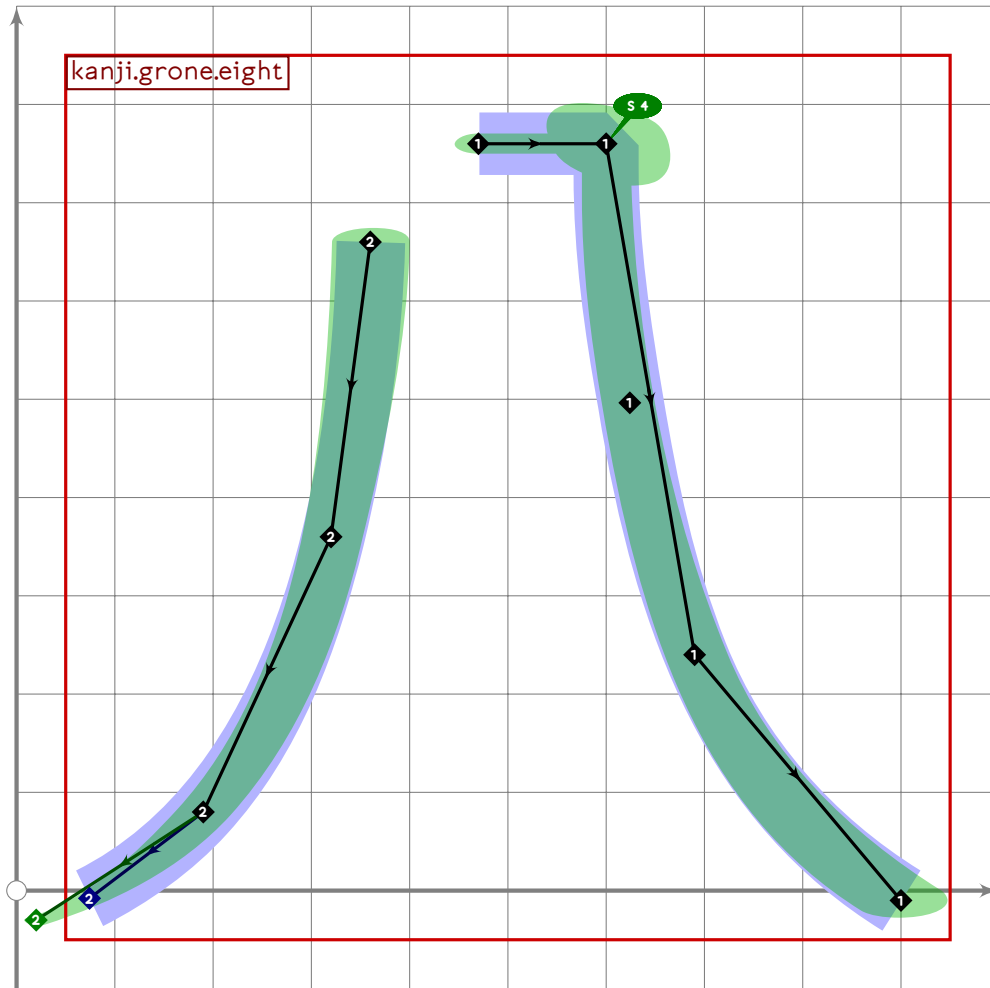
90 % legs radical
91 begintsuglyph("uni2F09";9);
92   kanji.radical.legs;
93   tsu_render;
94 endtsuglyph;
95

```

U+2F0A  
tsuku.uni2F0A



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



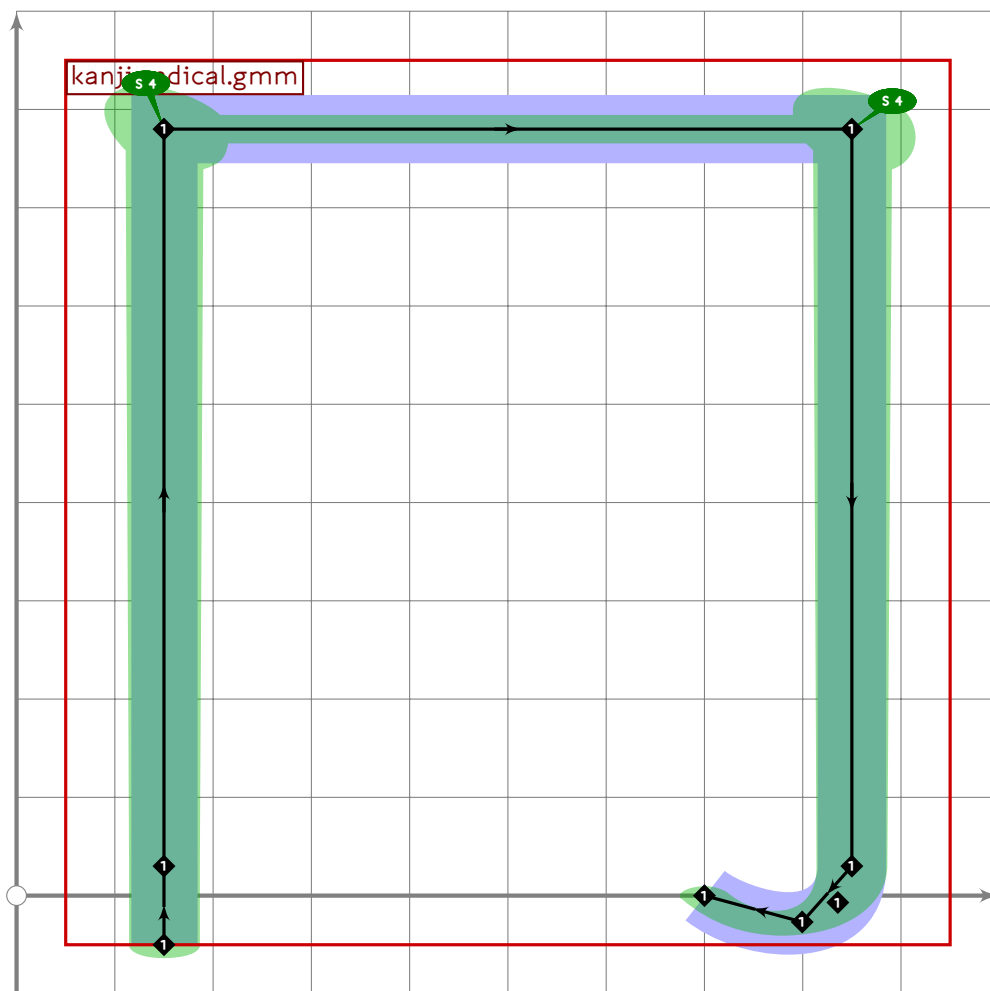
```

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

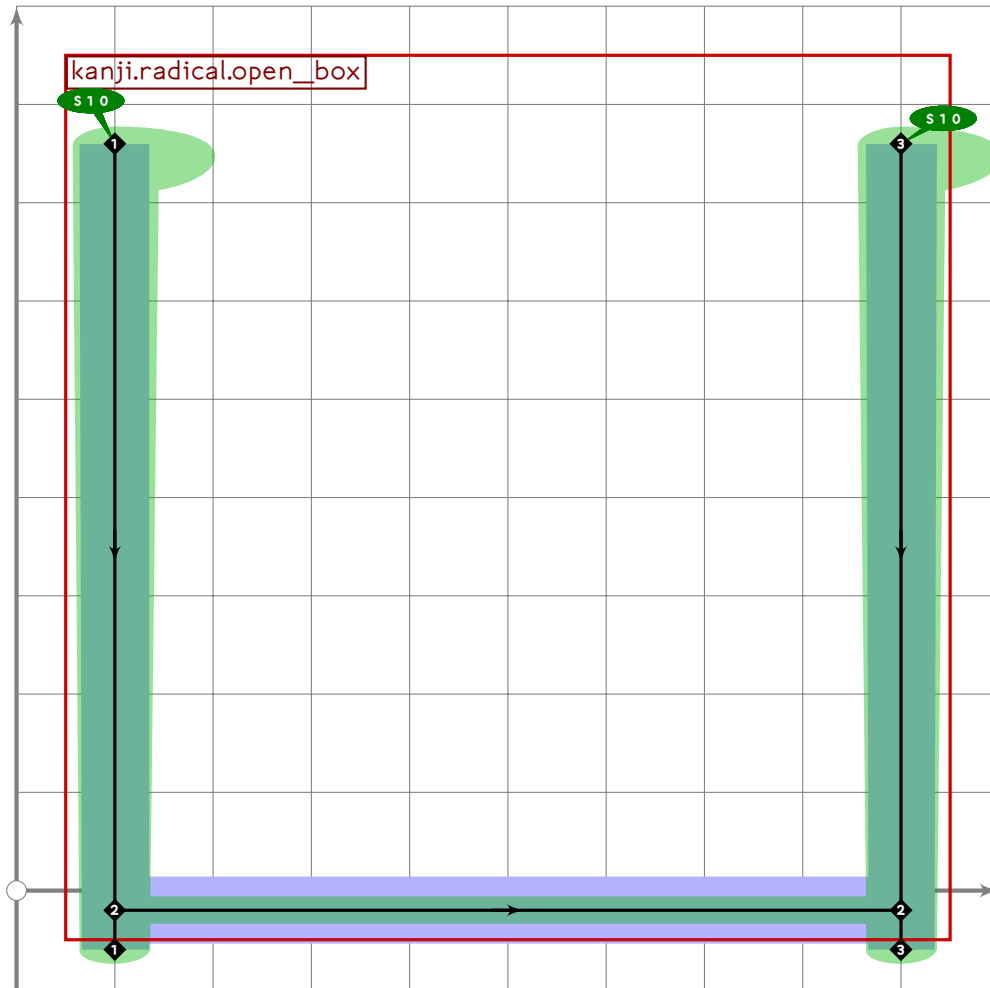
```



U+2F0C  
tsuku.uni2F0C



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

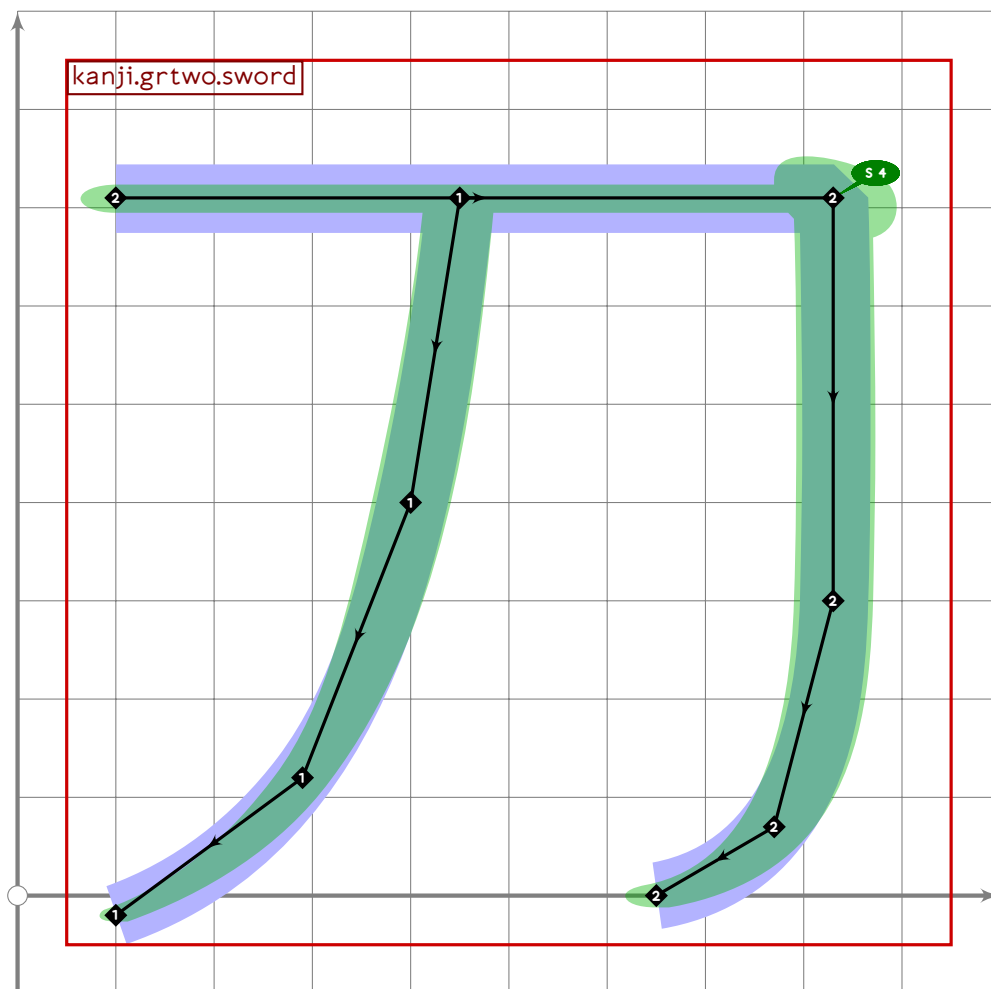


```

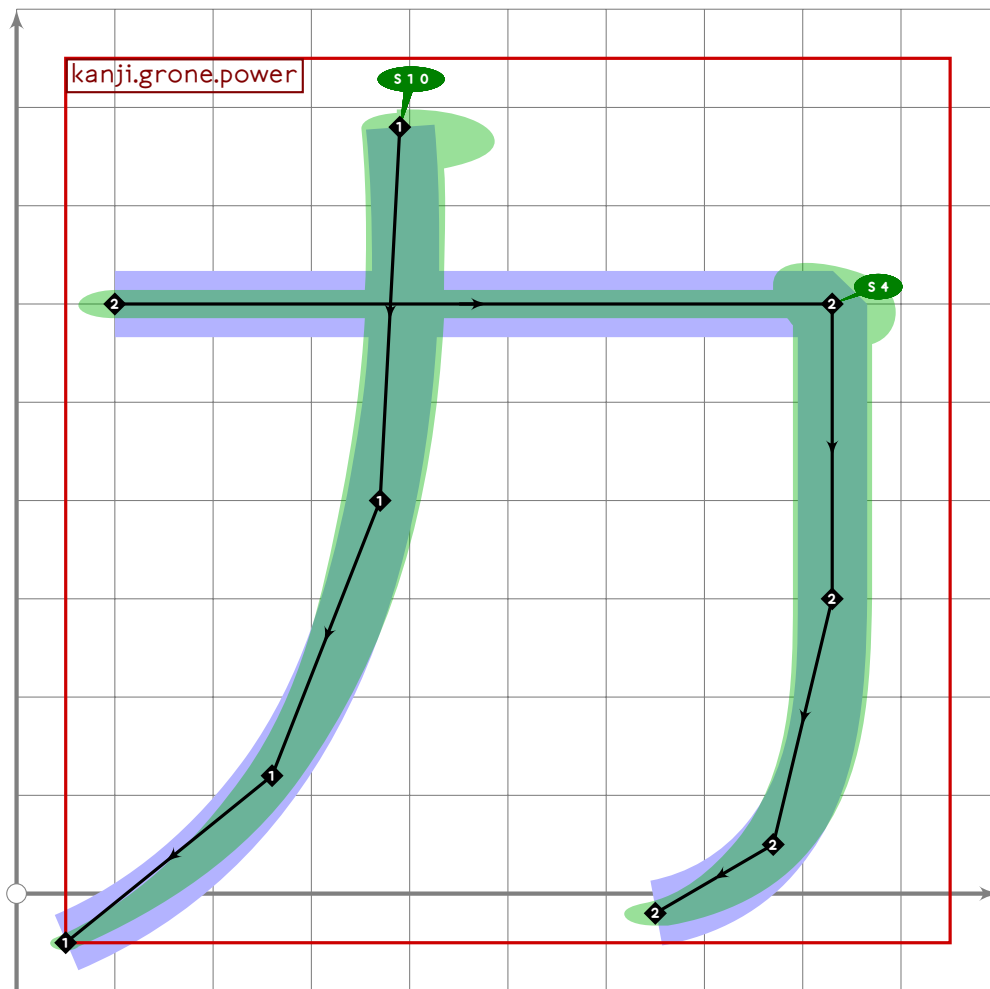
114 % kan "open box radical"
115 begintsuglyph("uni2F10",16);
116   kanji.radical.open_box;
117   tsu_render;
118 endtsuglyph;
119

```

U+2F11  
tsuku.uni2F11



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

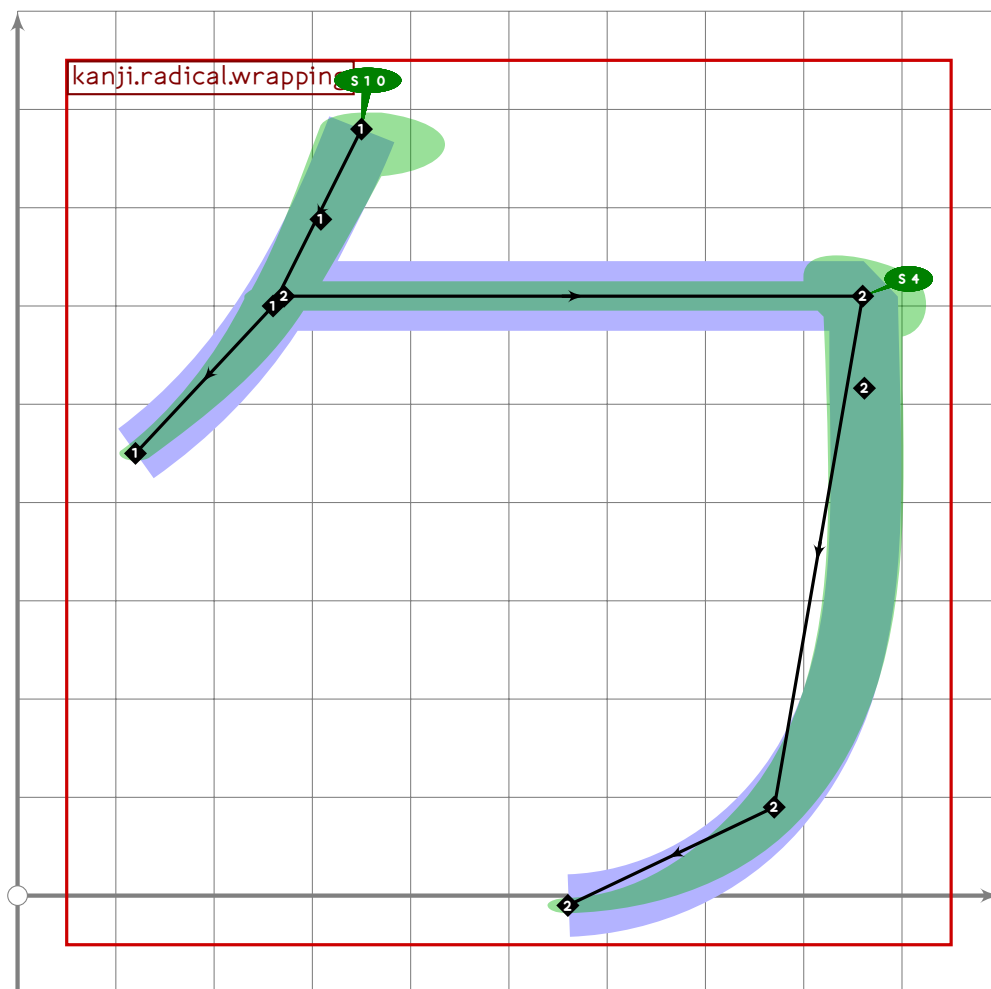


```

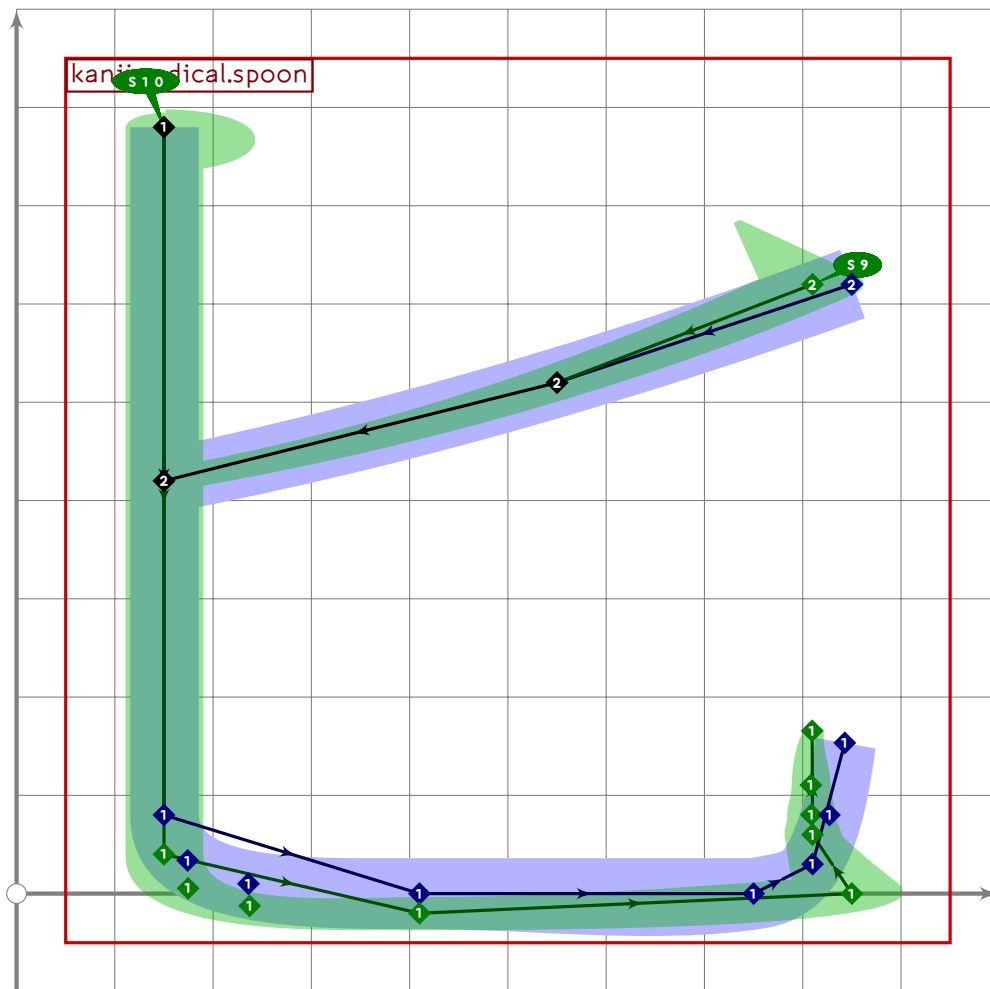
126 % ryoku "power"; as in Koizumi Itsuki has teh "chounouryoku"
127 begintsuglyph("uni2F12",18);
128   kanji.grone.power;
129   tsu_render;
130 endtsuglyph;
131

```

U+2F13  
tsuku.uni2F13



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

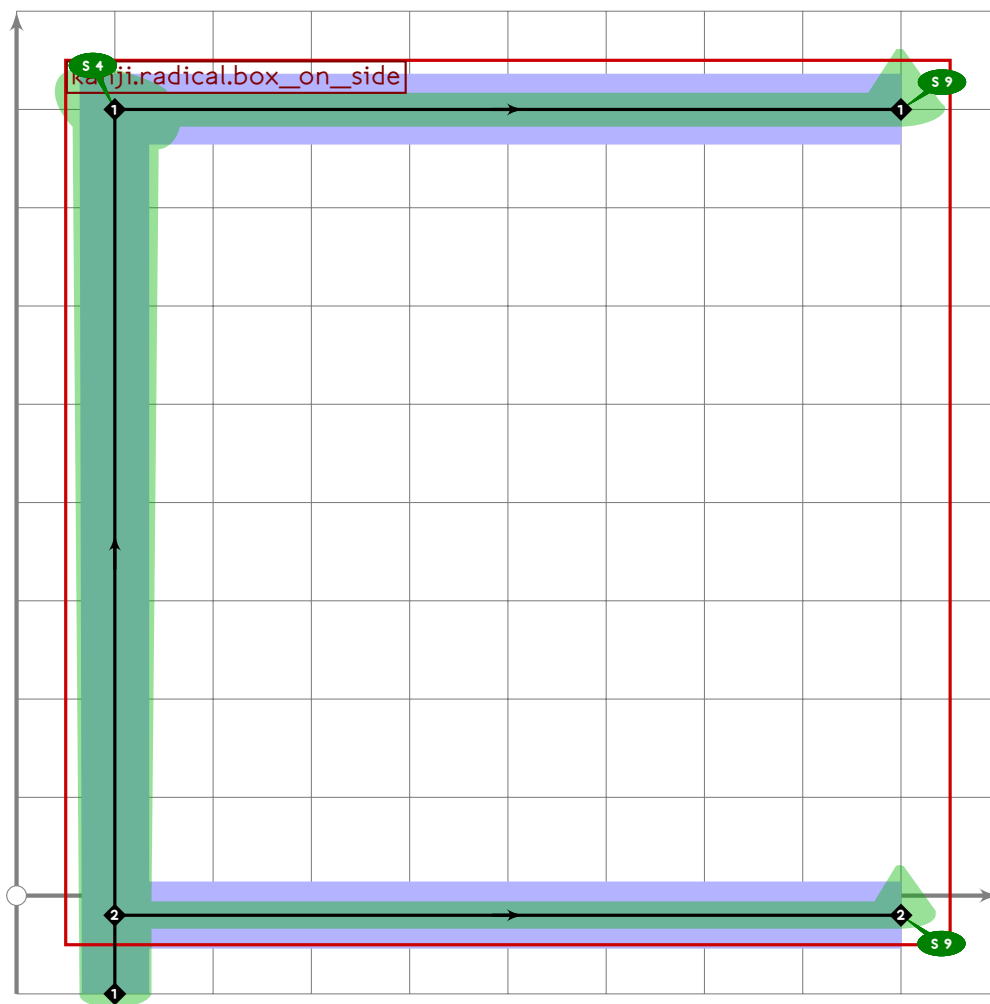


```

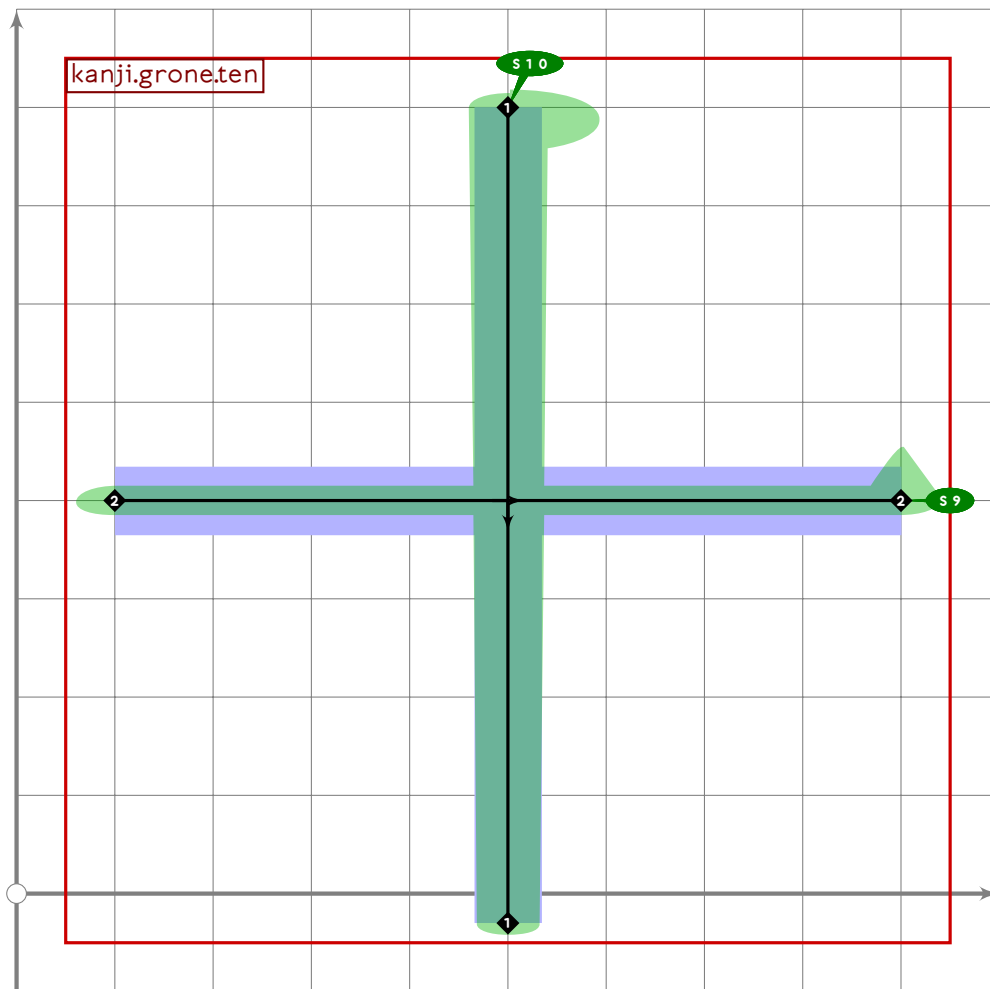
138 % hi/saji "spoon"
139 begintsuglyph("uni2F14";20);
140   kanji.radical.spoon;
141   tsu_render;
142 endtsuglyph;
143

```

U+2F15  
tsuku.uni2F15



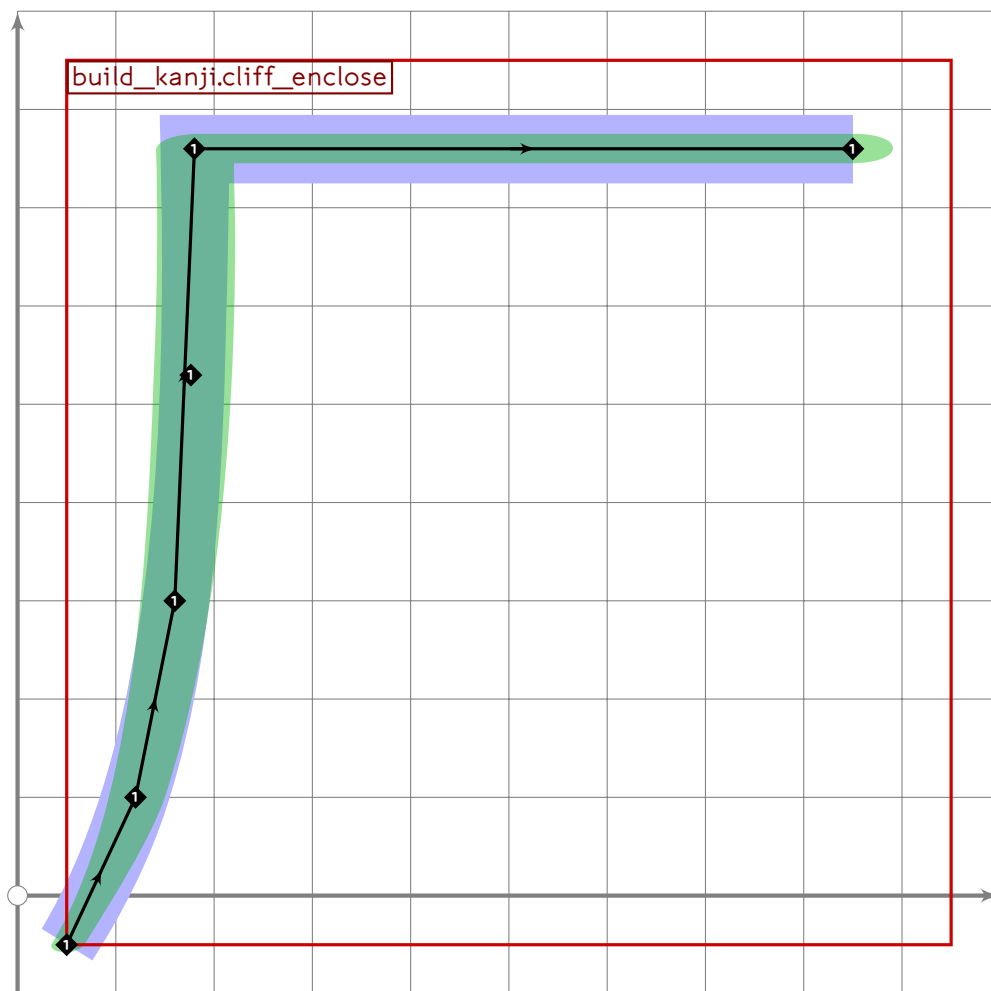
```
144 % hou/hakogamae "box on side radical"
145 beginsuglyph('uni2F15';21);
146 kanji.radical.box_on_side;
147 tsu_render;
148 endtsuglyph;
149
```



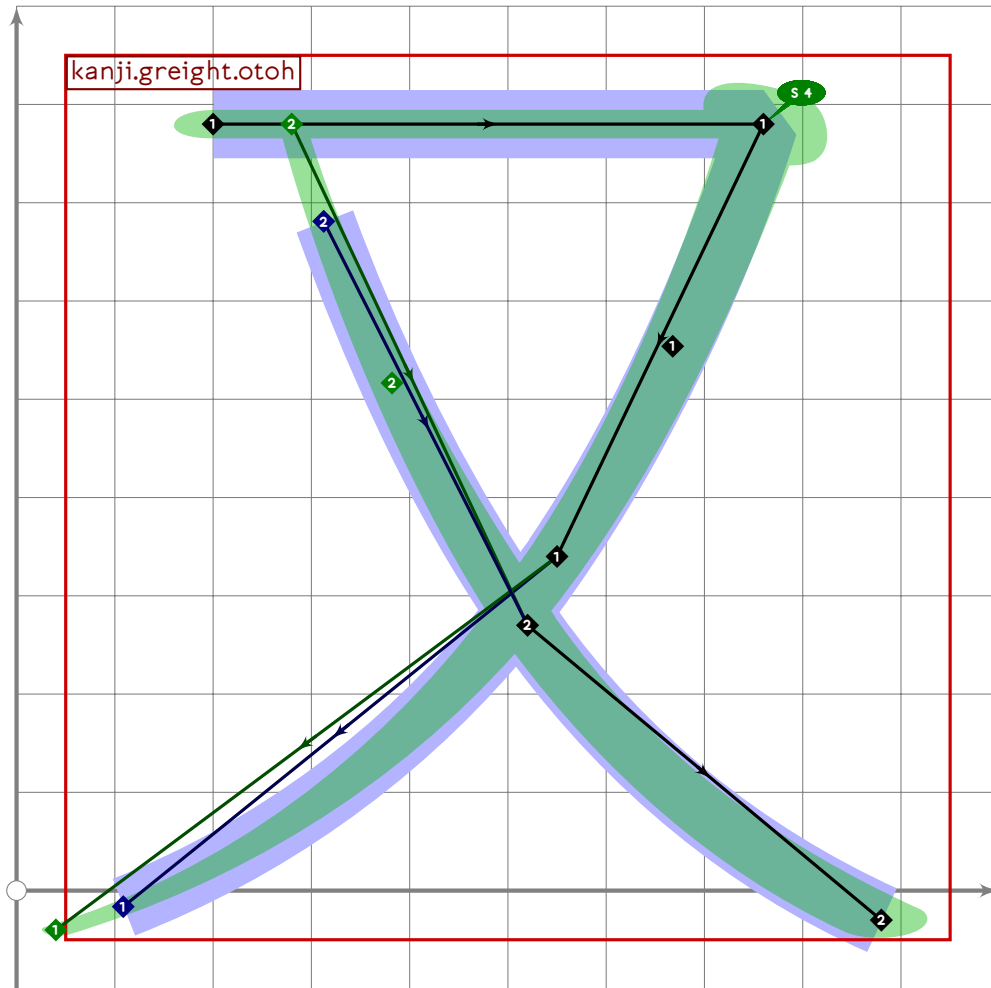
```
150 % juu/too "ten"  
151 begintsuglyph("uni2F17";23);  
152   kanji.grone.ten;  
153   tsu_render;  
154 endtsuglyph;  
155
```



U+2F1A  
tsuku.uni2F1A



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

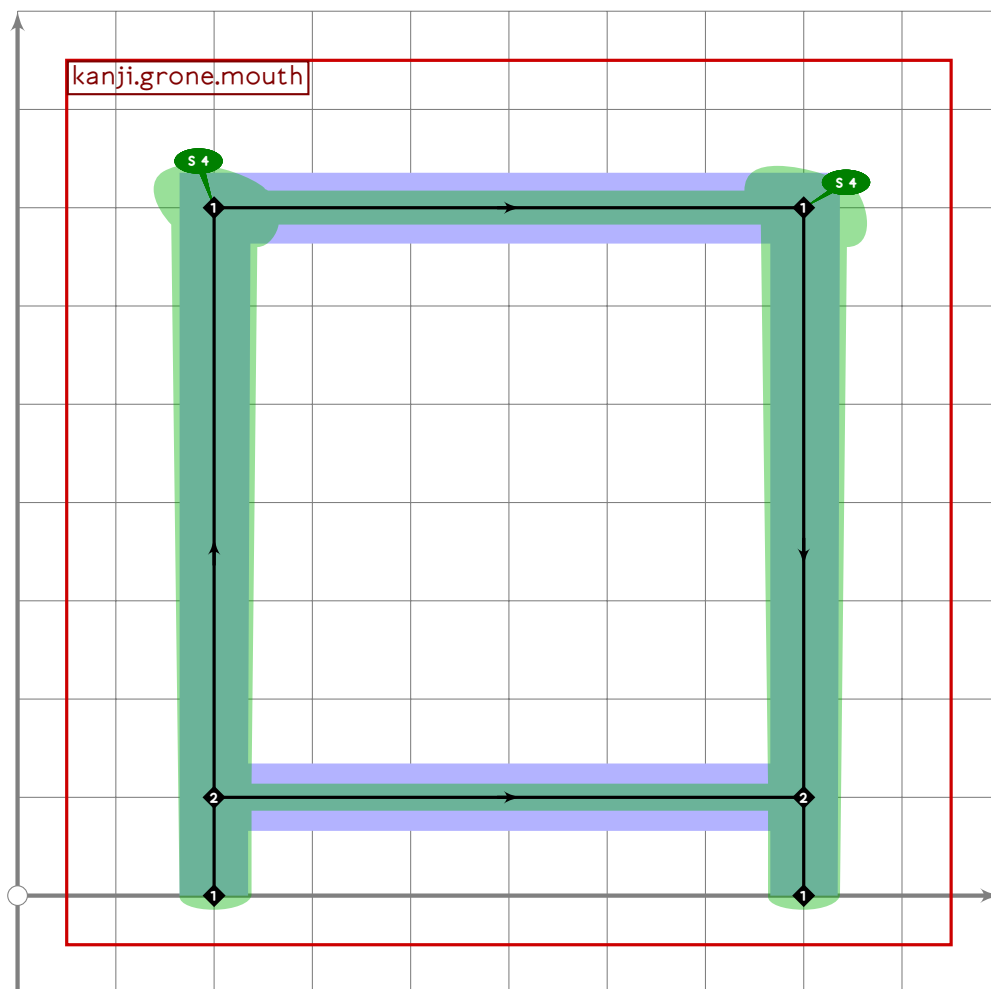


```

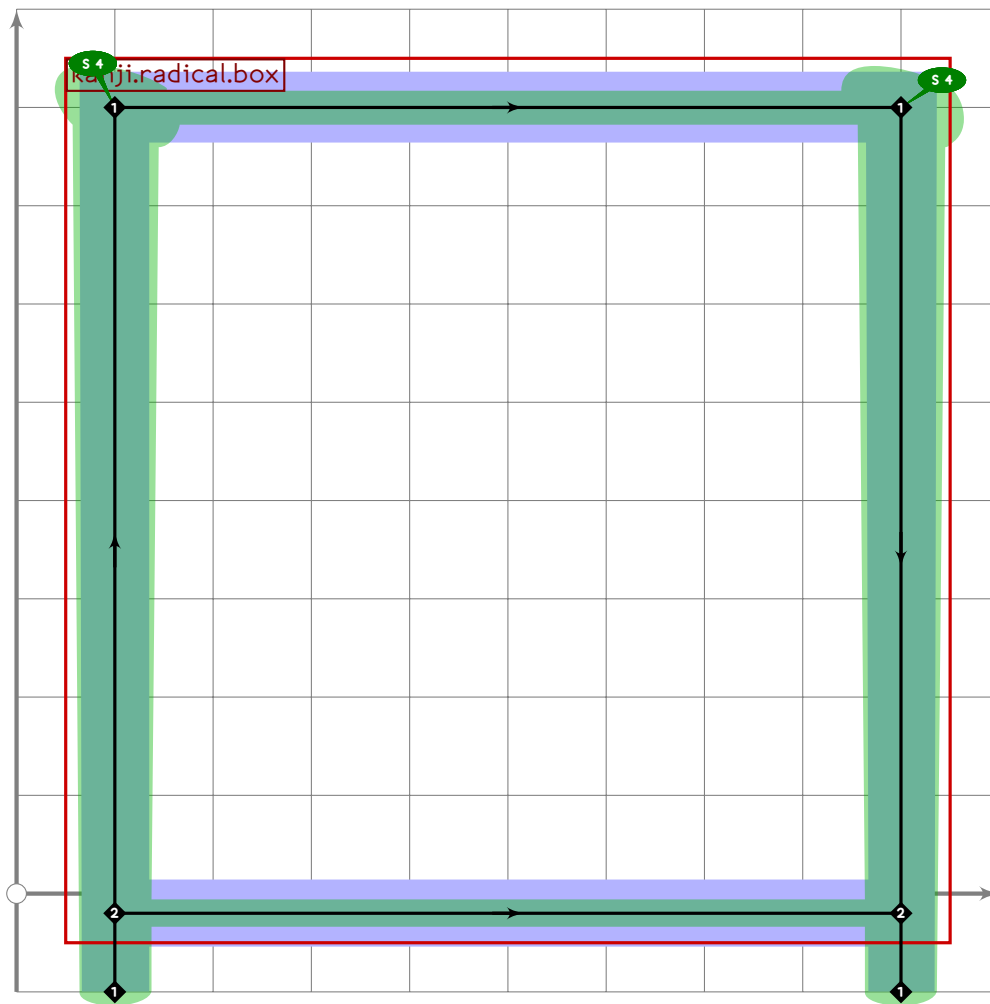
162 % yuu/mata "on the other hand"
163 begintsuglyph("uni2F1C",28);
164   kanji.greight.otoh;
165   tsu_render;
166 endtsuglyph;
167

```

U+2F1D  
tsuku.uni2F1D

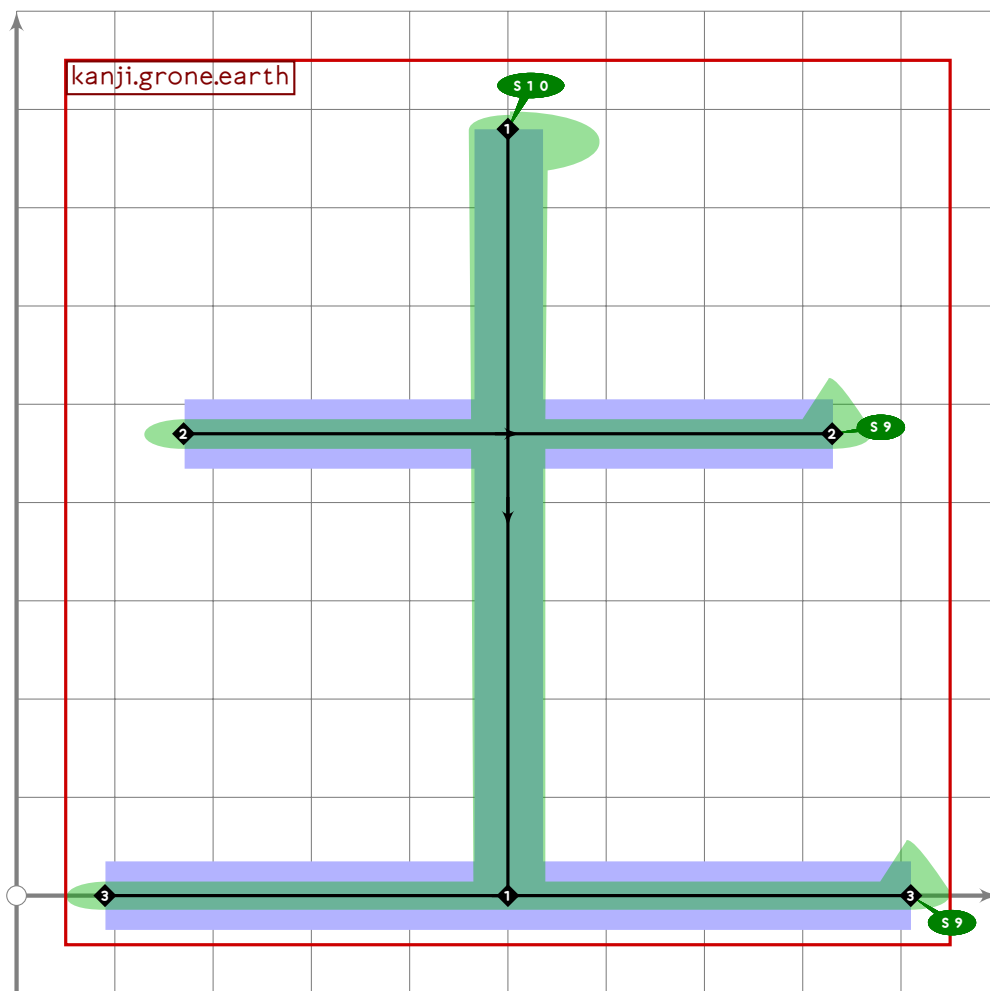


```
168 % kou/kuchi "mouth"  
169 begintsuglyph("uni2F1D",29);  
170   kanji.grone.mouth;  
171   tsu_render;  
172 endtsuglyph;  
173
```

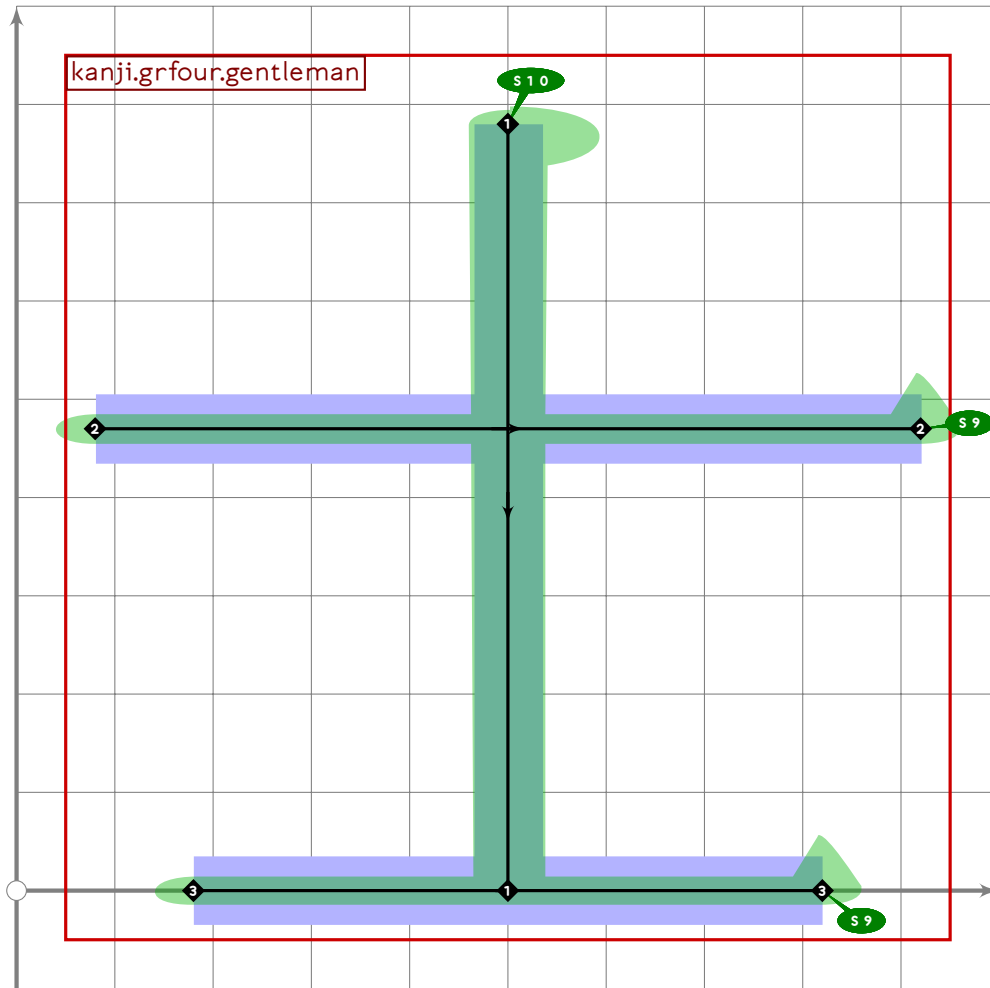


```
174 % box radical
175 begintsuglyph("uni2F1E";30);
176   kanji.radical.box;
177   tsu_render;
178 endtsuglyph;
179
```

U+2F1F  
tsuku.uni2F1F



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

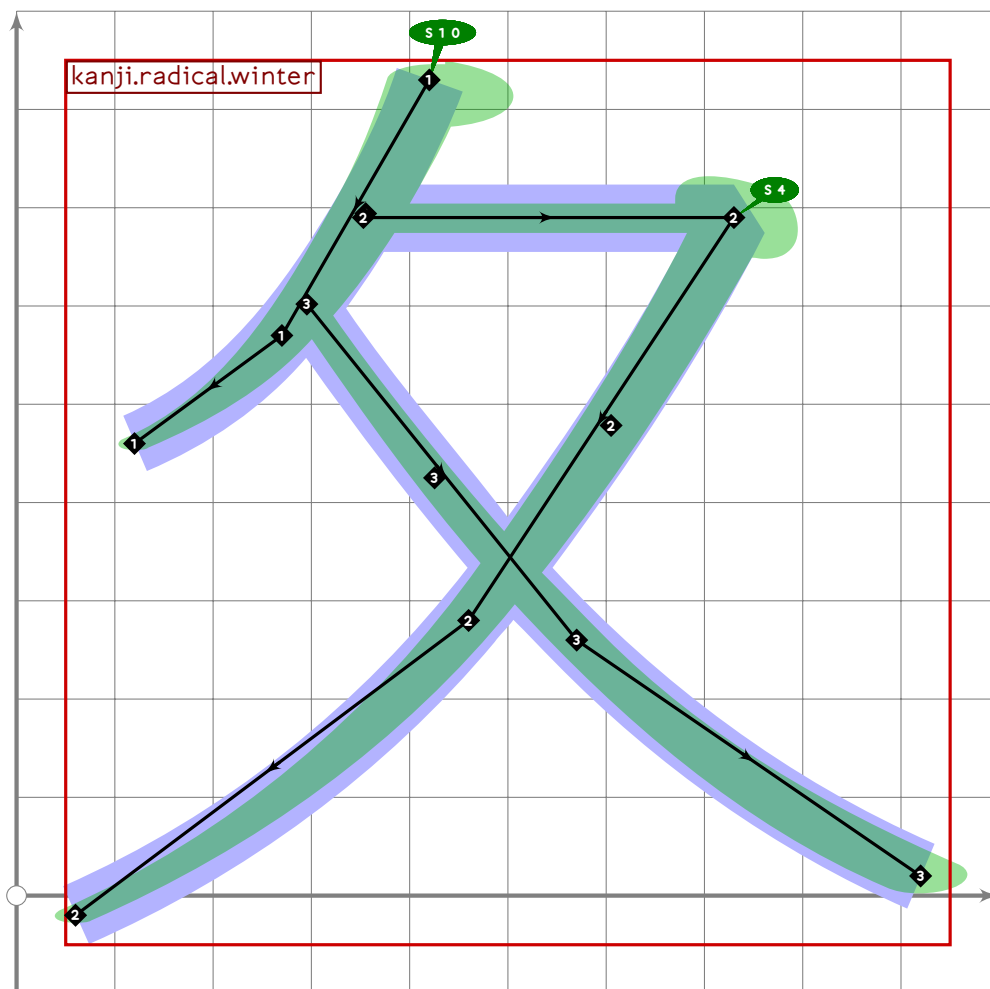


```

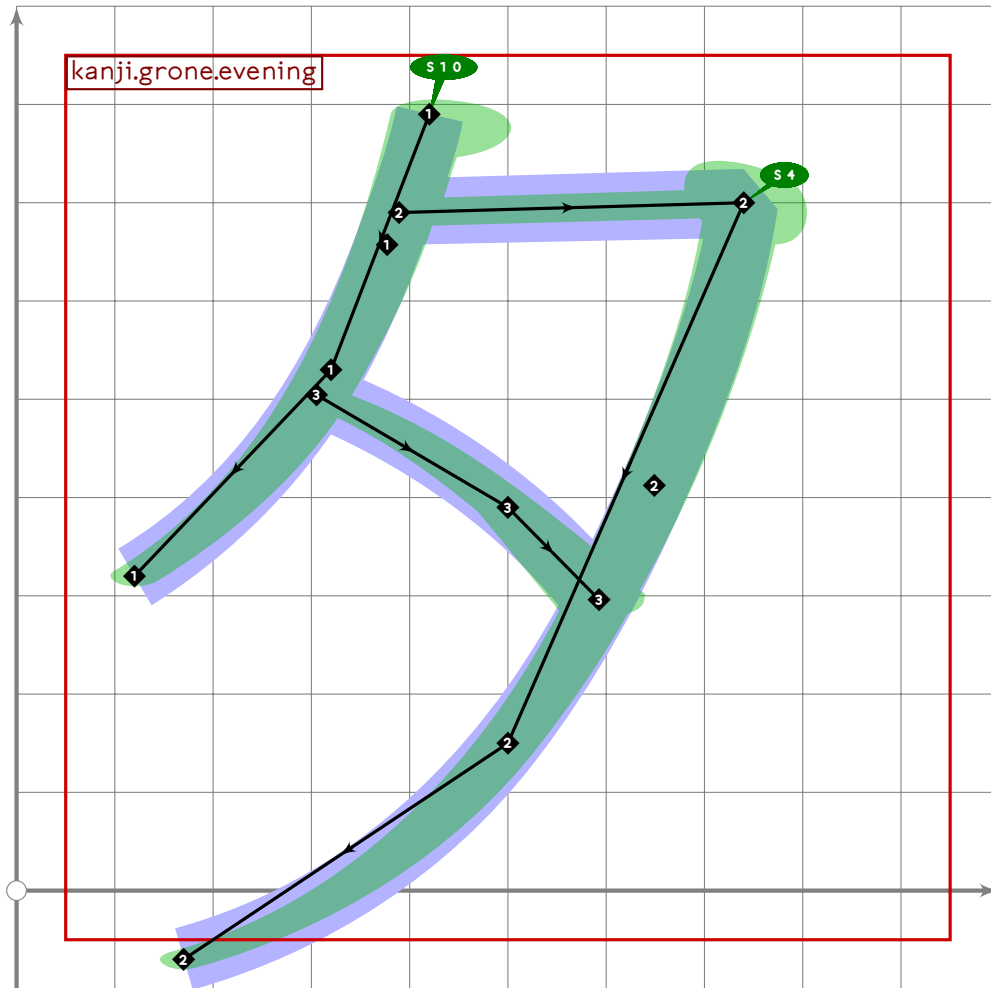
186 % shi "gentleman" ("samurai" radical)
187 begintsuglyph("uni2F20",32);
188   kanji.grfour.gentleman;
189   tsu_render;
190 endtsuglyph;
191

```

U+2F21  
tsuku.uni2F21



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



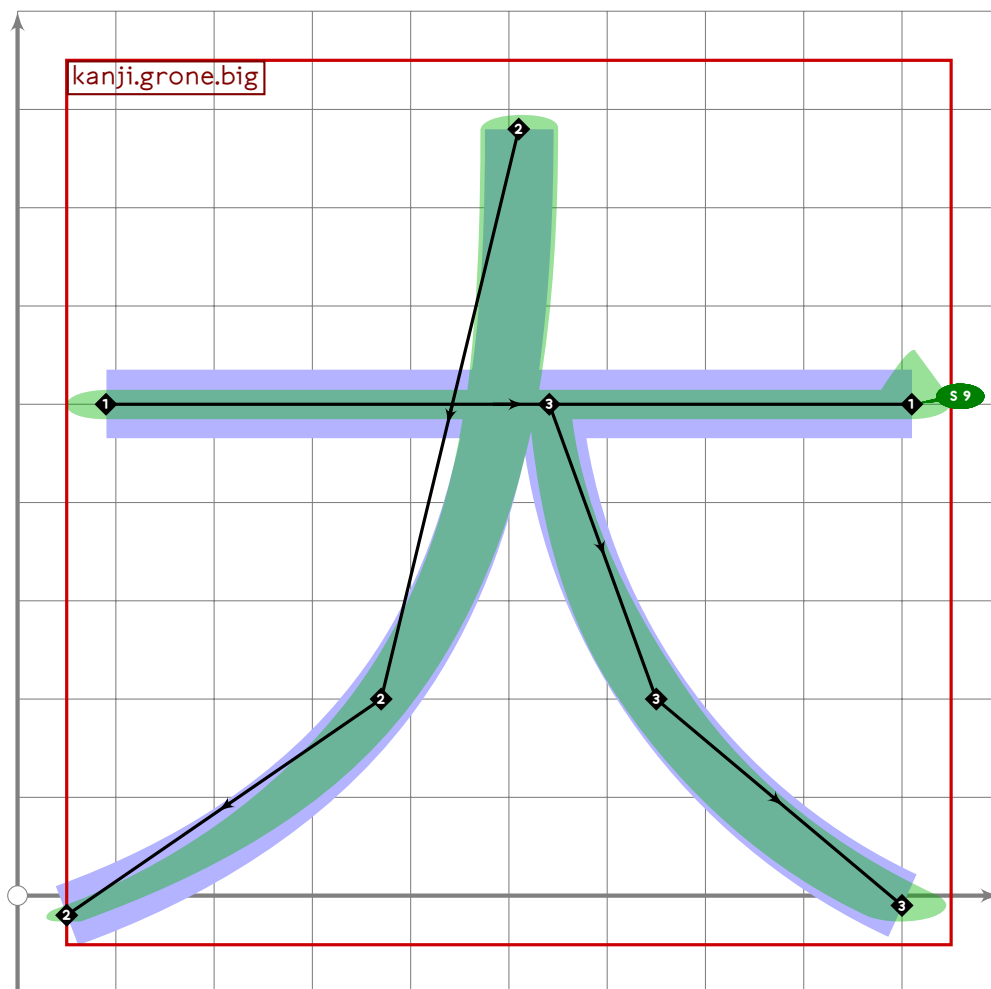
```

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

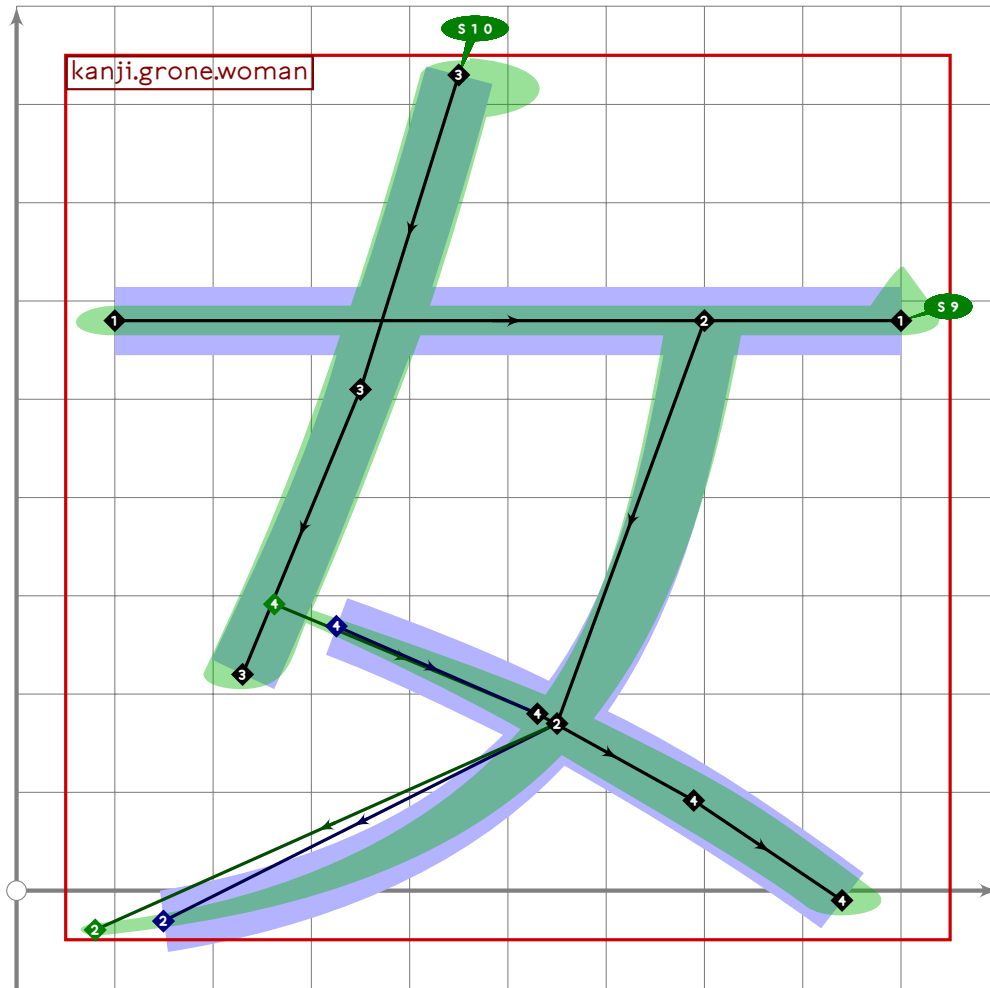
```



U+2F24  
tsuku.uni2F24



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

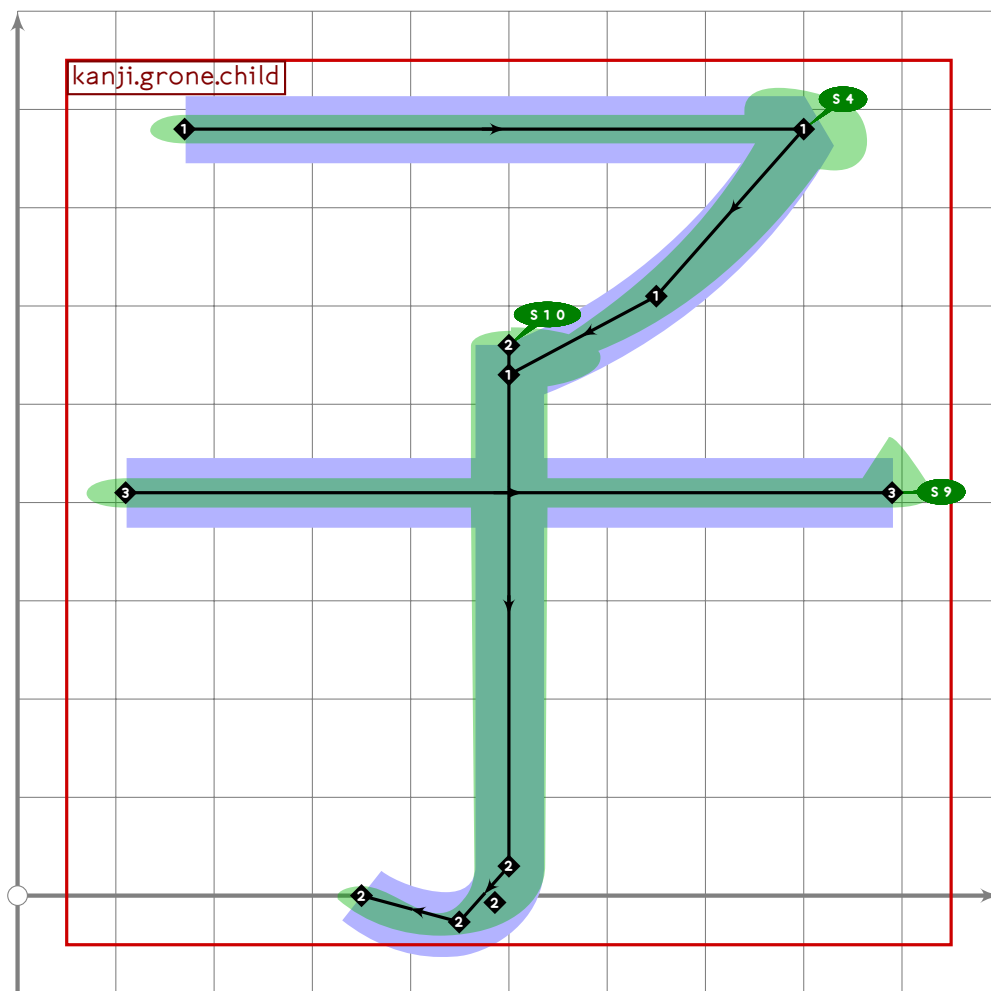


```

210 % jo/onna "woman"
211 begintsuglyph("uni2F25";37);
212   kanji.grone.woman;
213   tsu_render;
214 endtsuglyph;
215

```

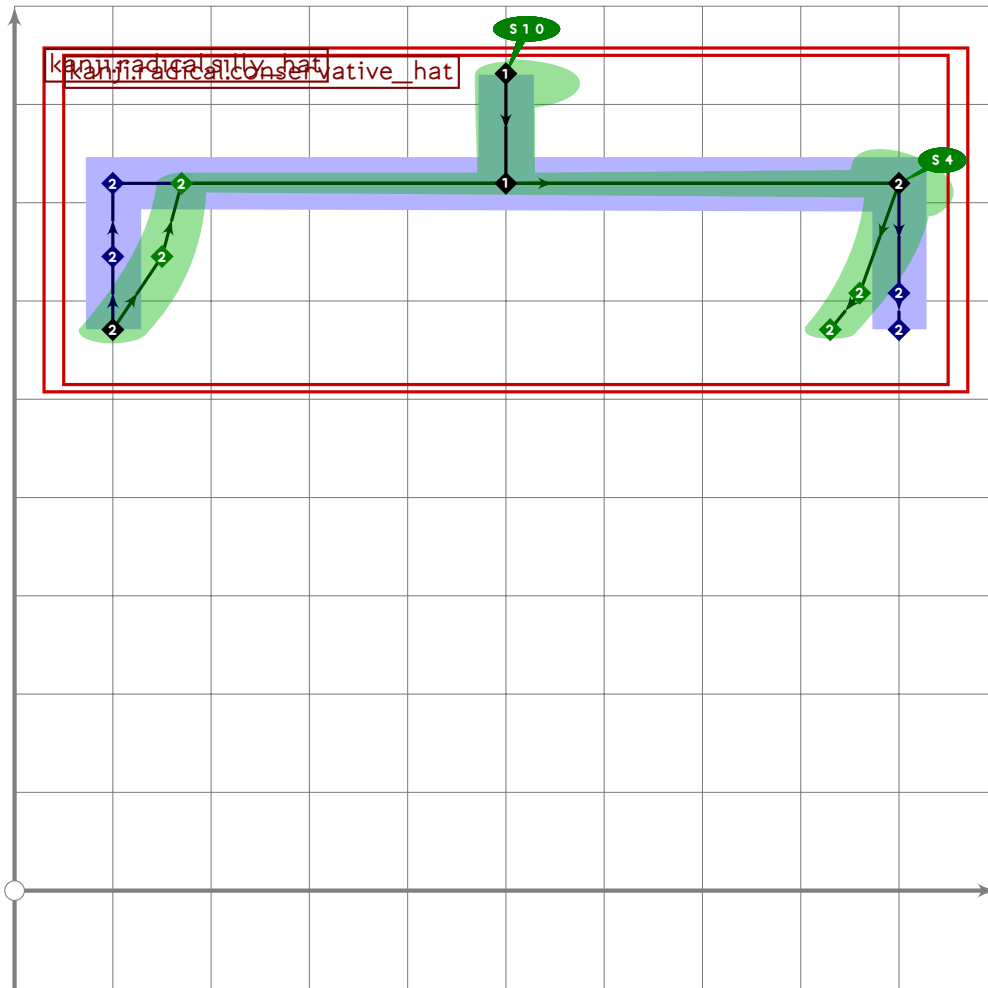
U+2F26  
tsuku.uni2F26



```

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

```

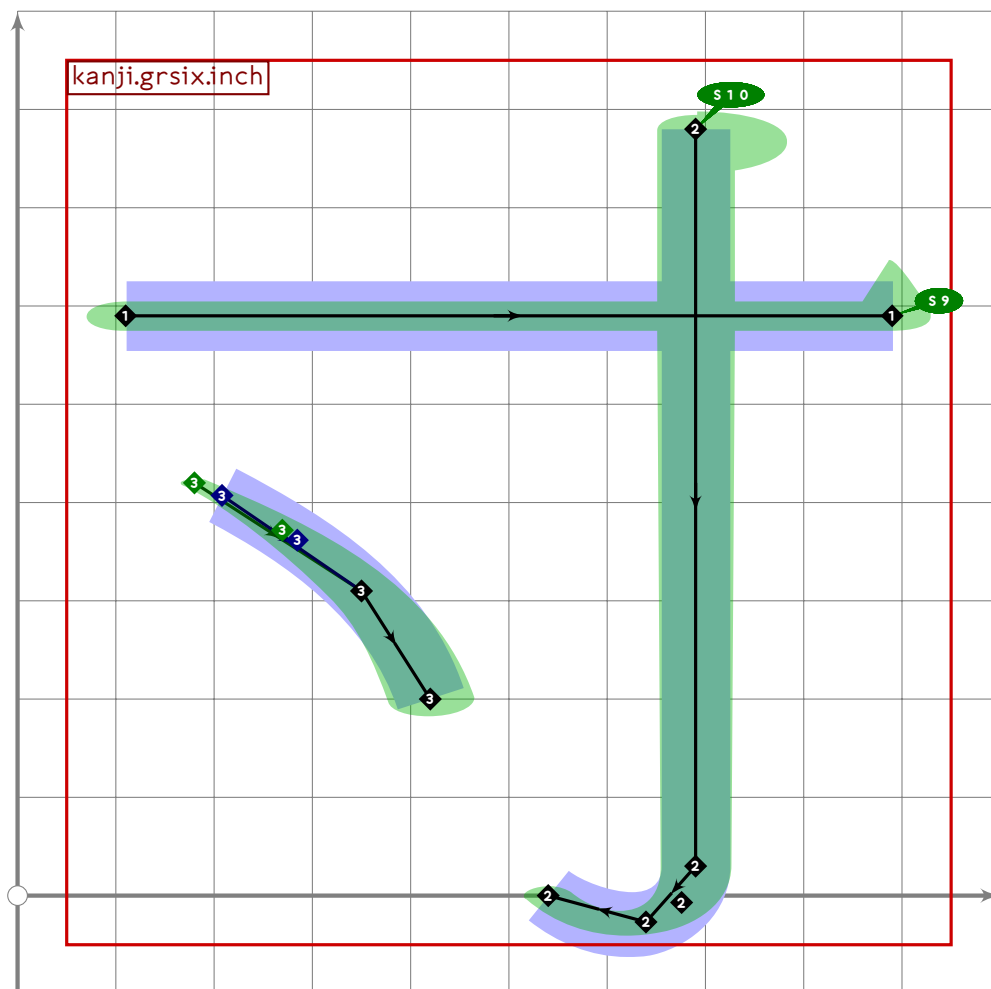


```

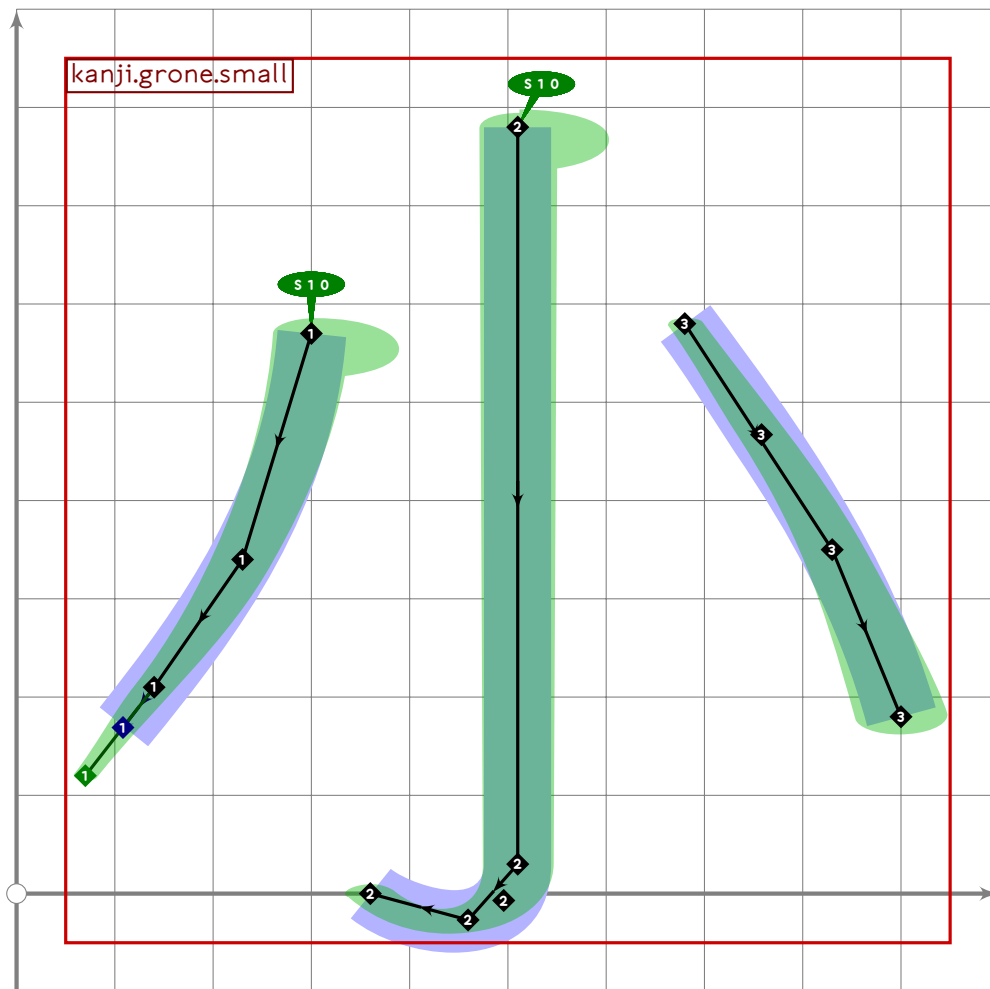
222 % silly hat radical
223 beginsuglyph("uni2F27";39);
224   build_kanji.tb(500;30)
225     (kanji.radical.silly_hat)
226   ();
227   tsu_render;
228 endsuglyph;
229

```

U+2F28  
tsuku.uni2F28



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

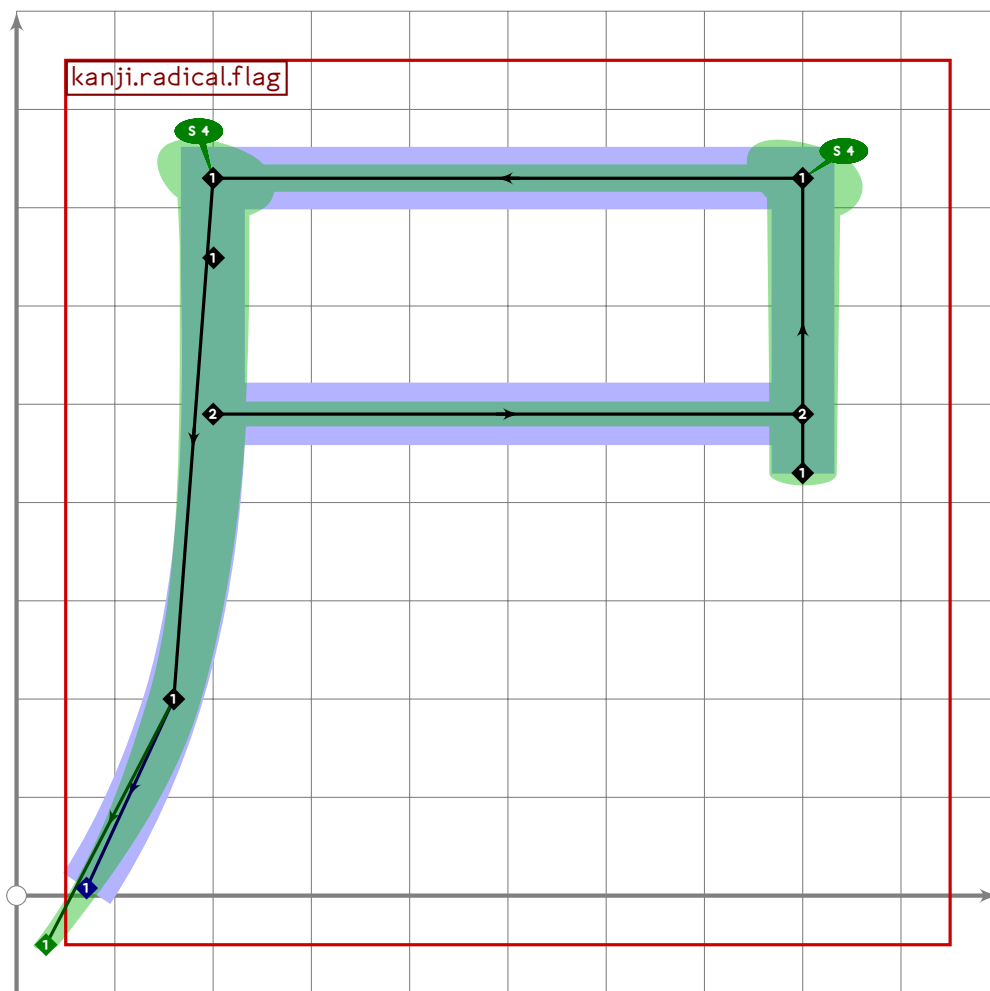


```

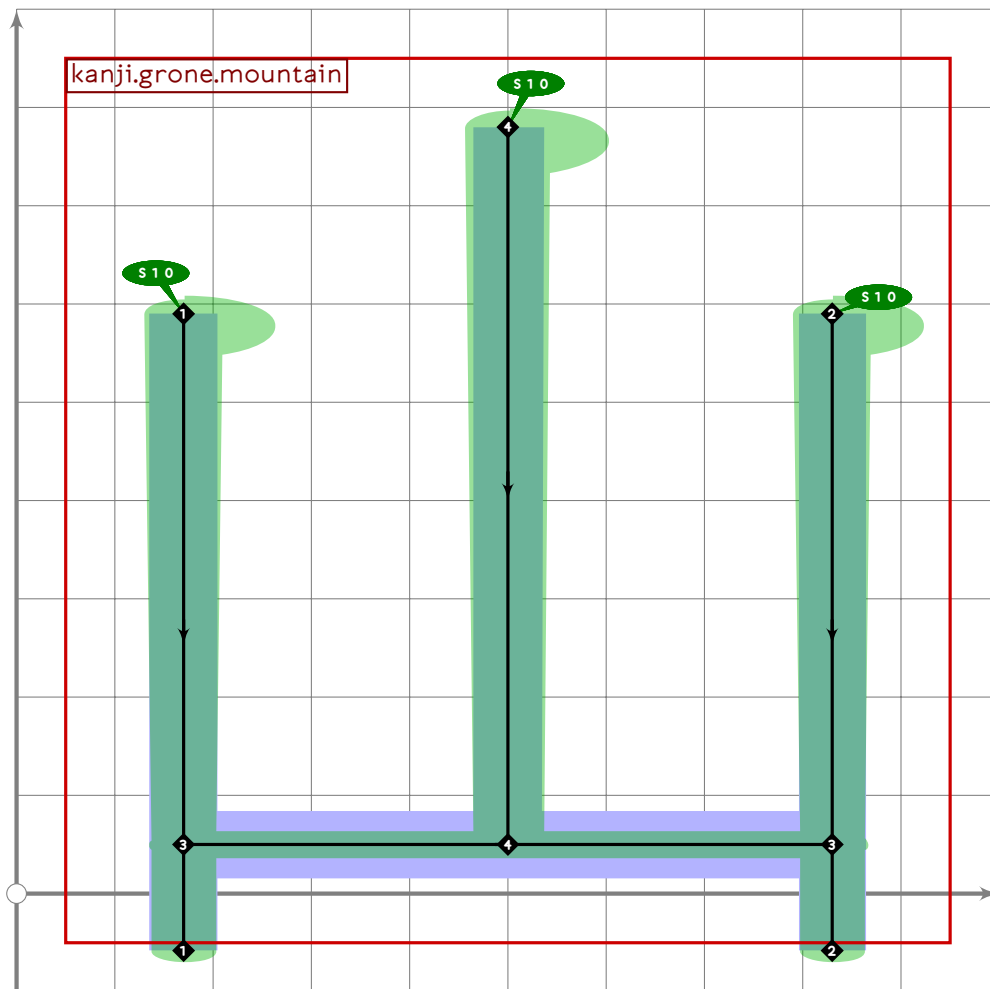
236 % shuu/chii "small"
237 begintsuglyph("uni2F29";41);
238   kanji.grone.small;
239   tsu_render;
240 endtsuglyph;
241

```

U+2F2B  
tsuku.uni2F2B



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



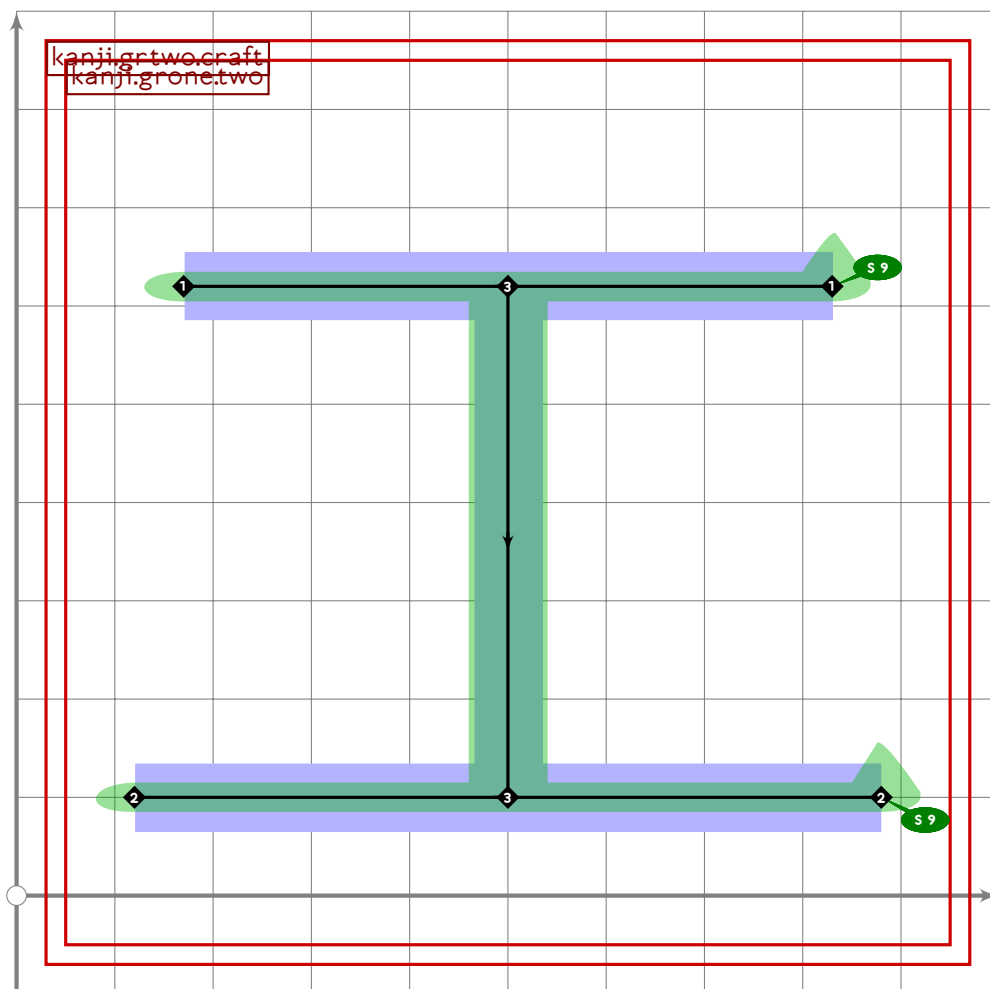
```

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

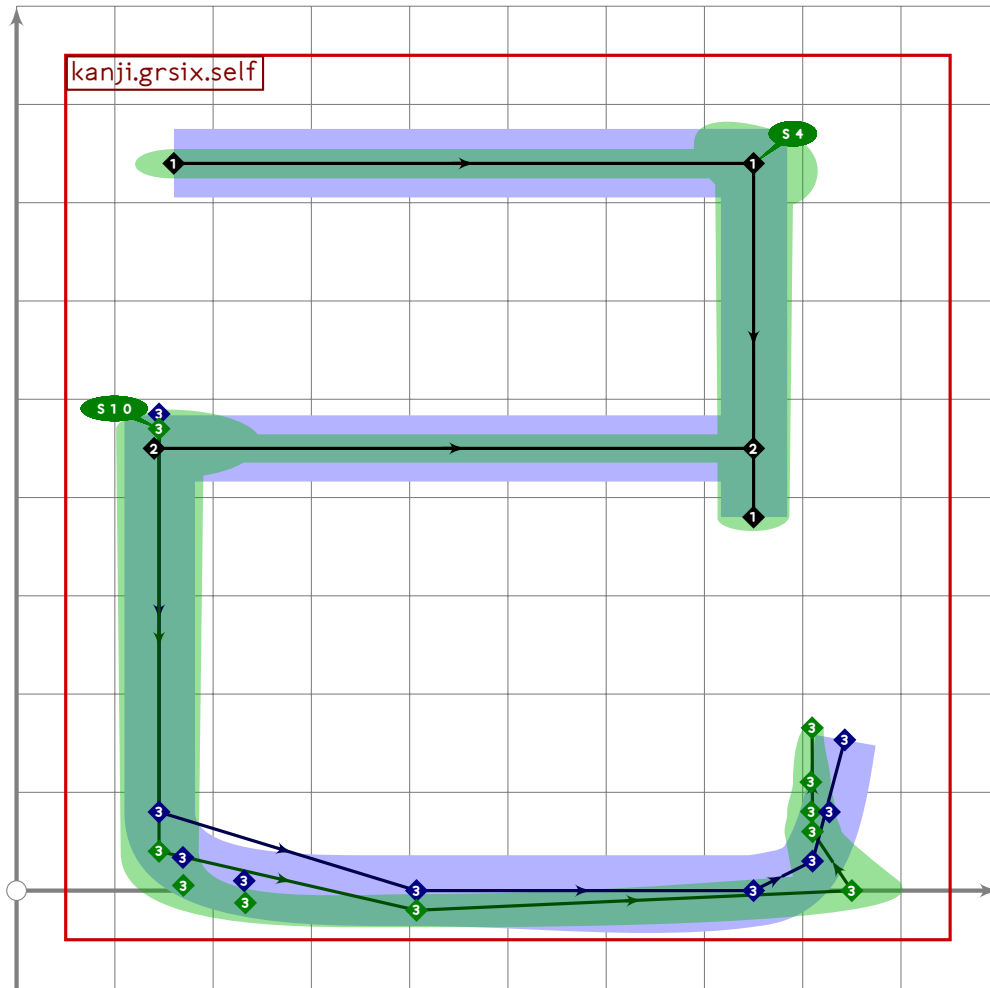
```



U+2F2F  
tsuku.uni2F2F



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

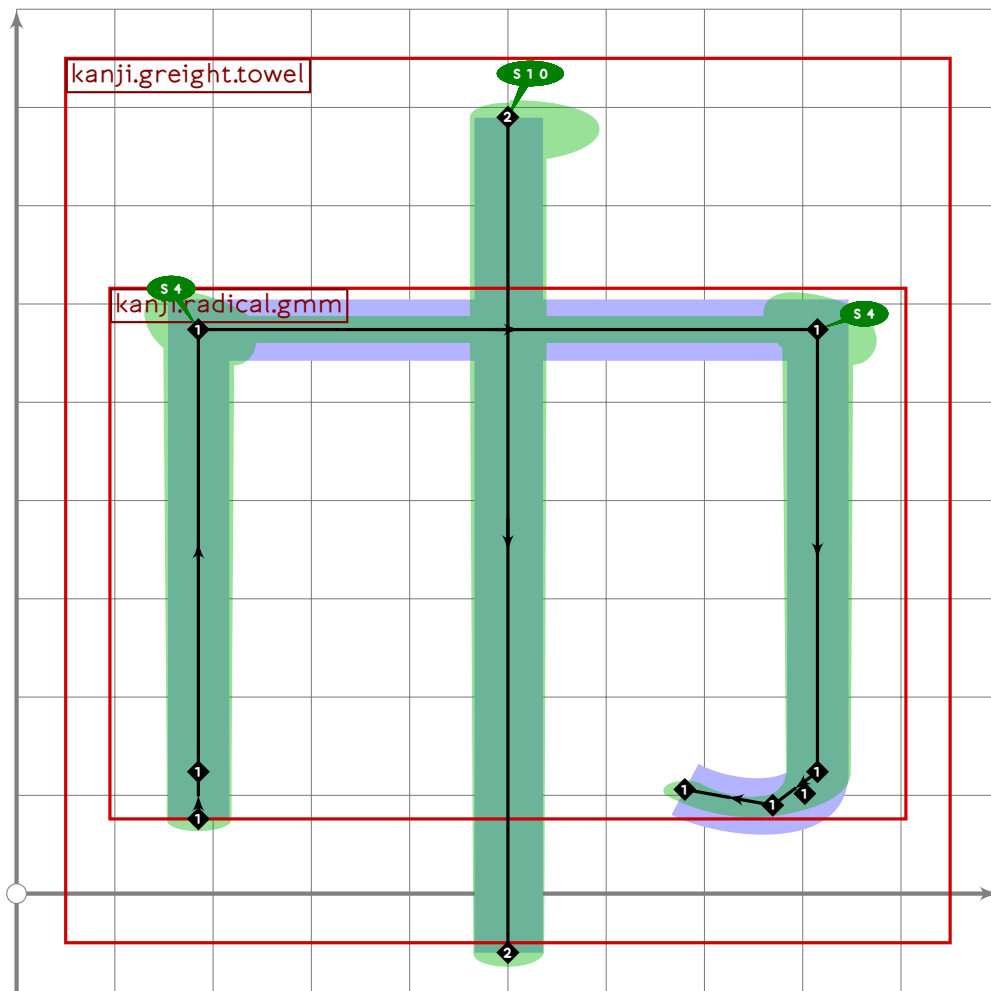


```

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

```

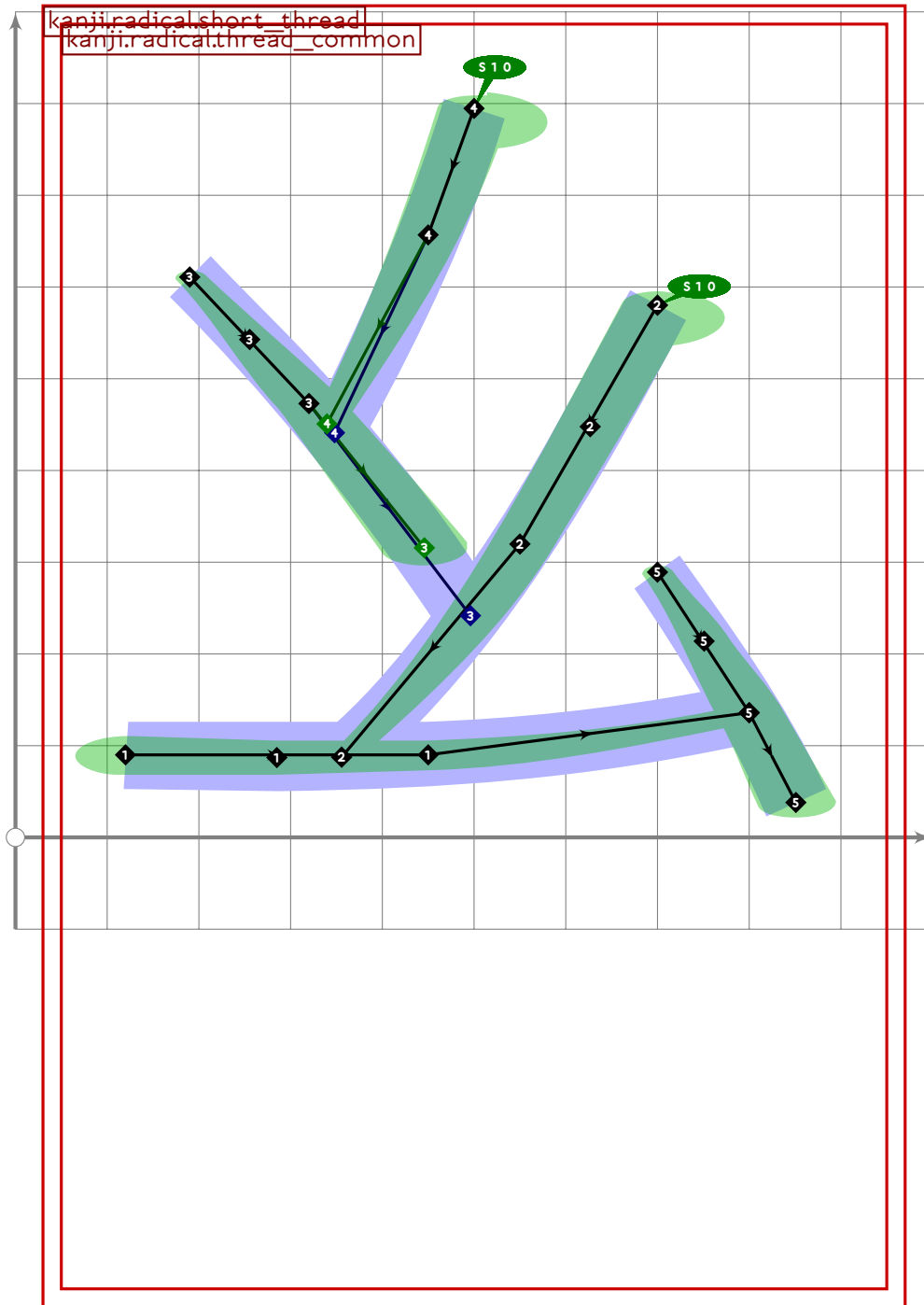
U+2F31  
tsuku.uni2F31



```

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

```

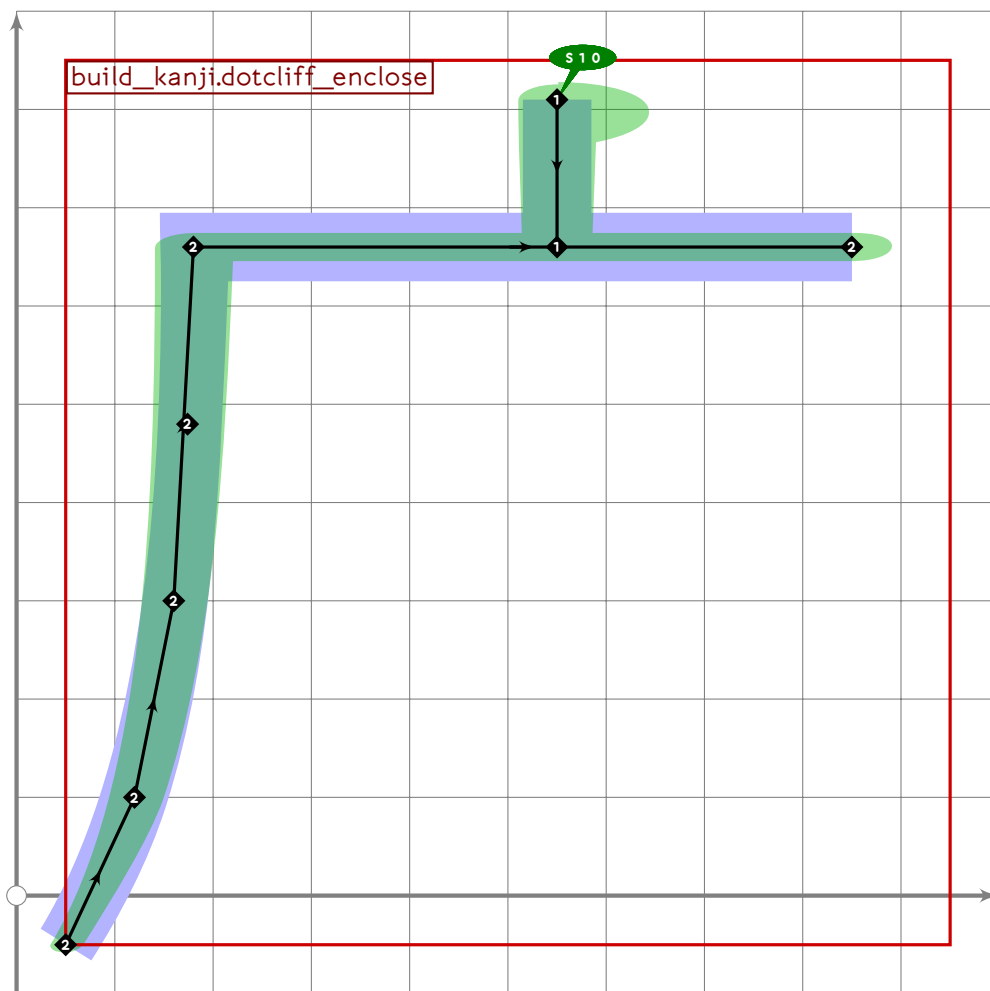


```

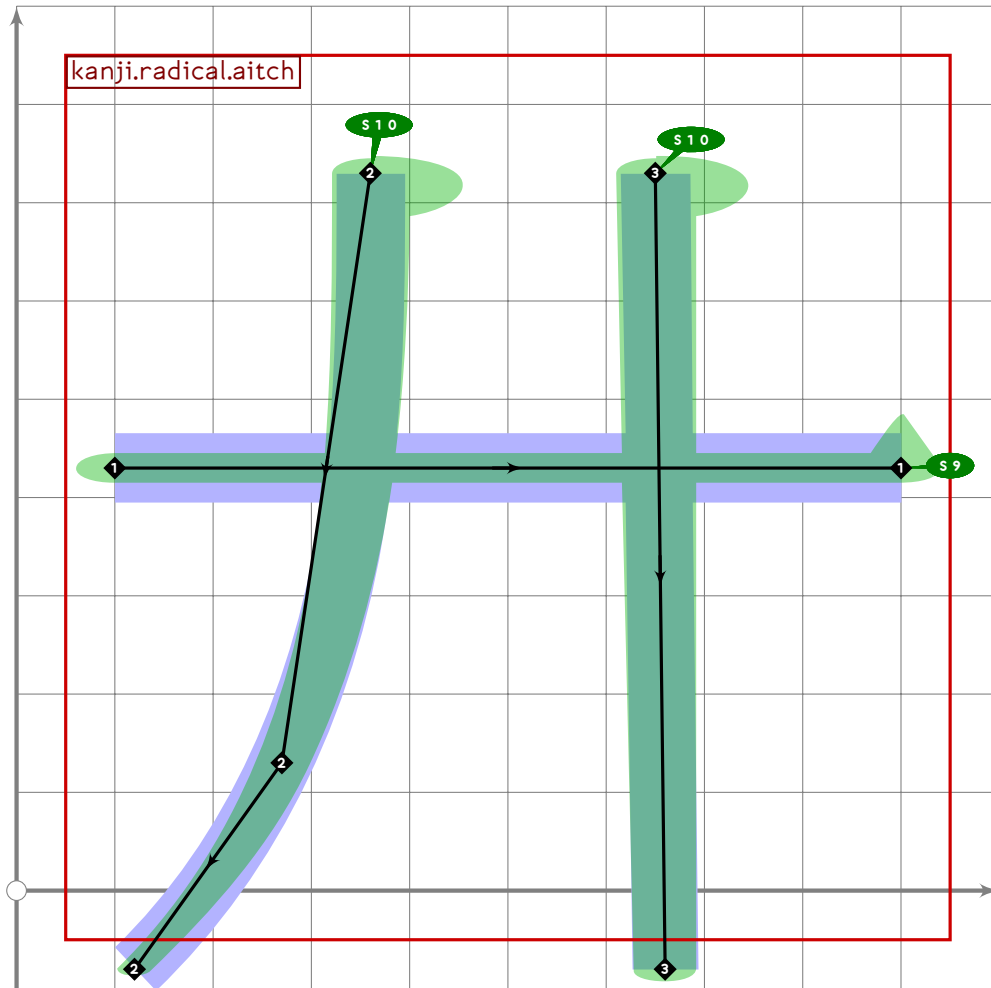
272 % you/chiisai "short thread radical"
273 begint Suglyph("uni2F33",51);
274   kanji.radical.short_thread;
275   tsu_render;
276 endtsuglyph;
277

```

U+2F34  
tsuku.uni2F34

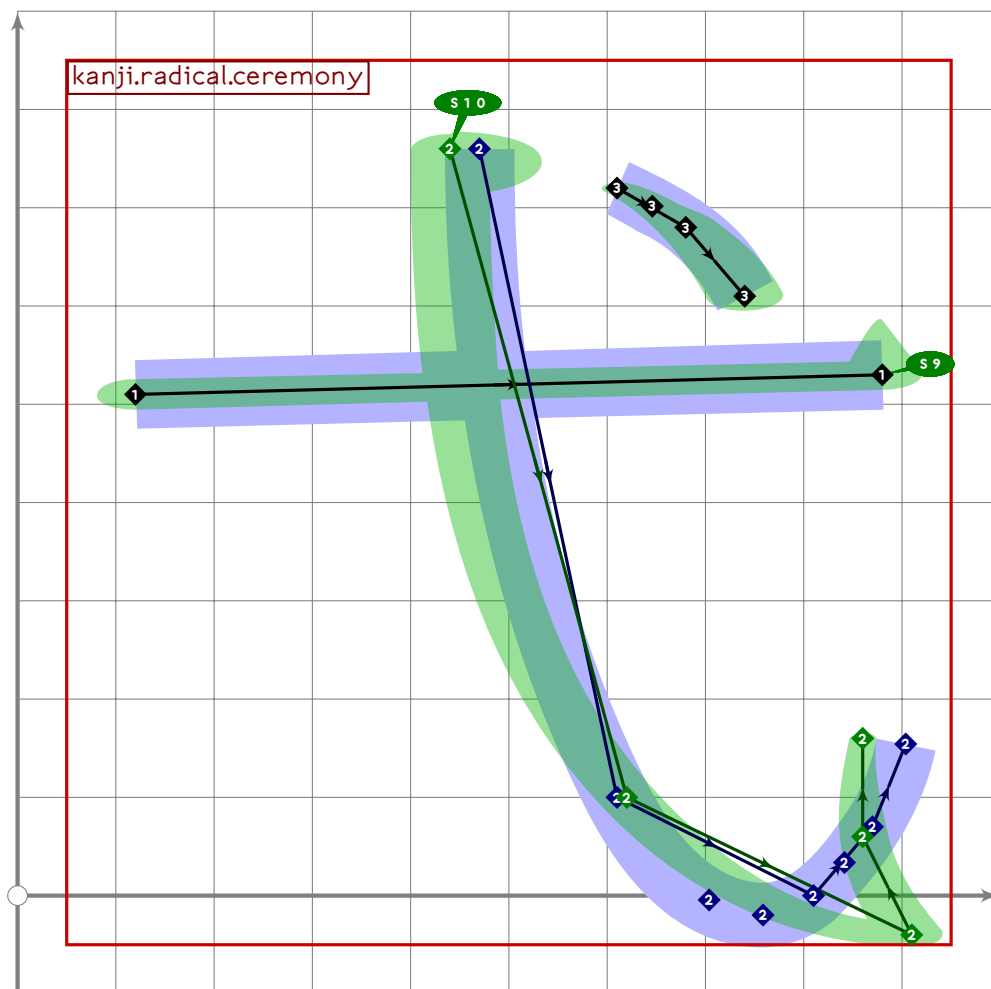


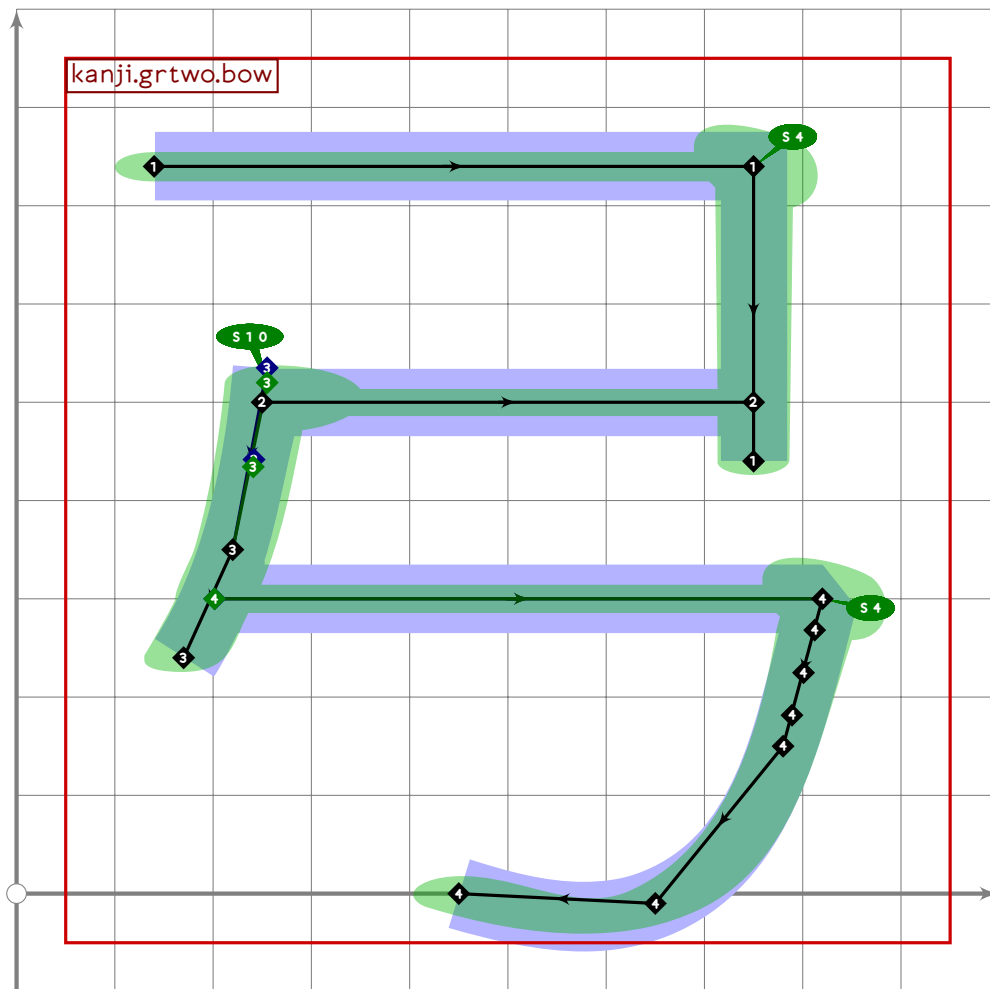
```
278 % madare "dotted cliff radical"
279 begintsuglyph("uni2F34";52);
280   build_kanji.dotcliff_enclose();
281   tsu_render;
282 endtsuglyph;
283
```



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

U+2F37  
tsuku.uni2F37





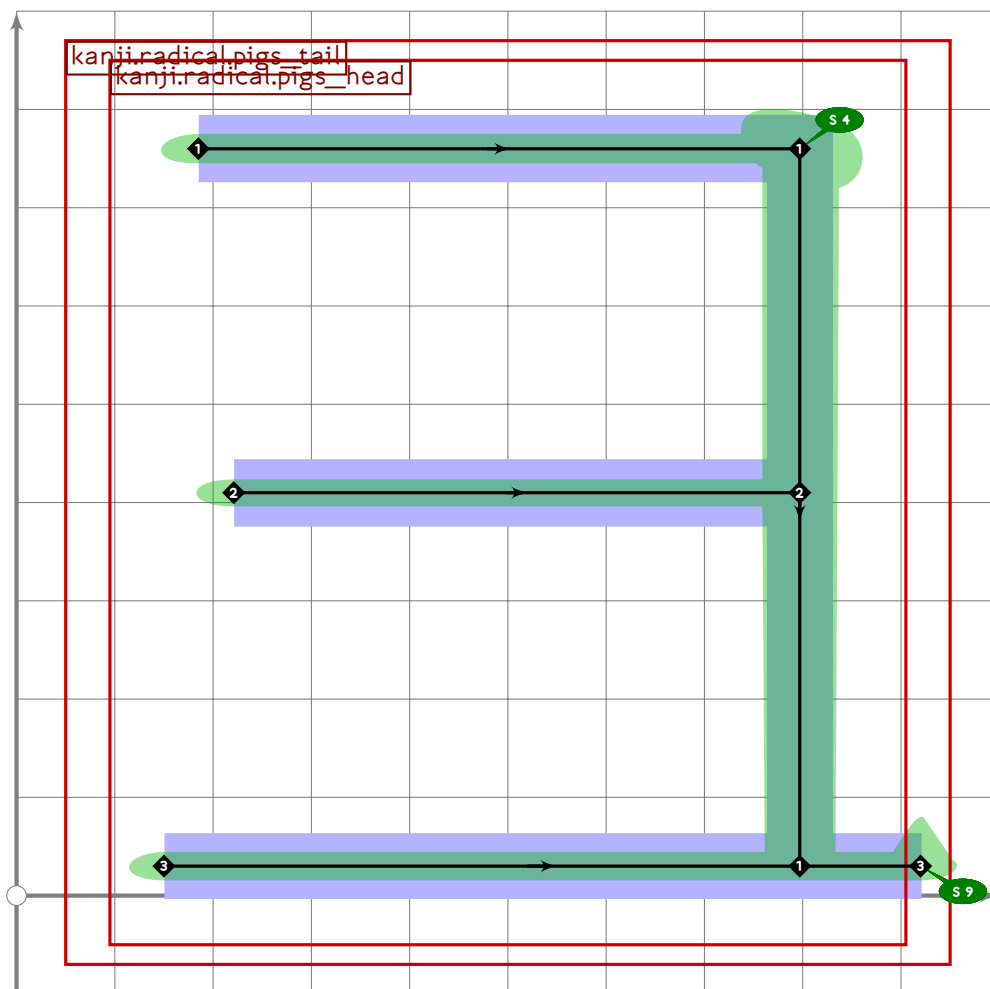
```

296 % kyuu/yumi "bow" (projectile weapon)
297 begintsuglyph("uni2F38",56);
298   kanji.grtwo.bow;
299   tsu_render;
300 endtsuglyph;
301

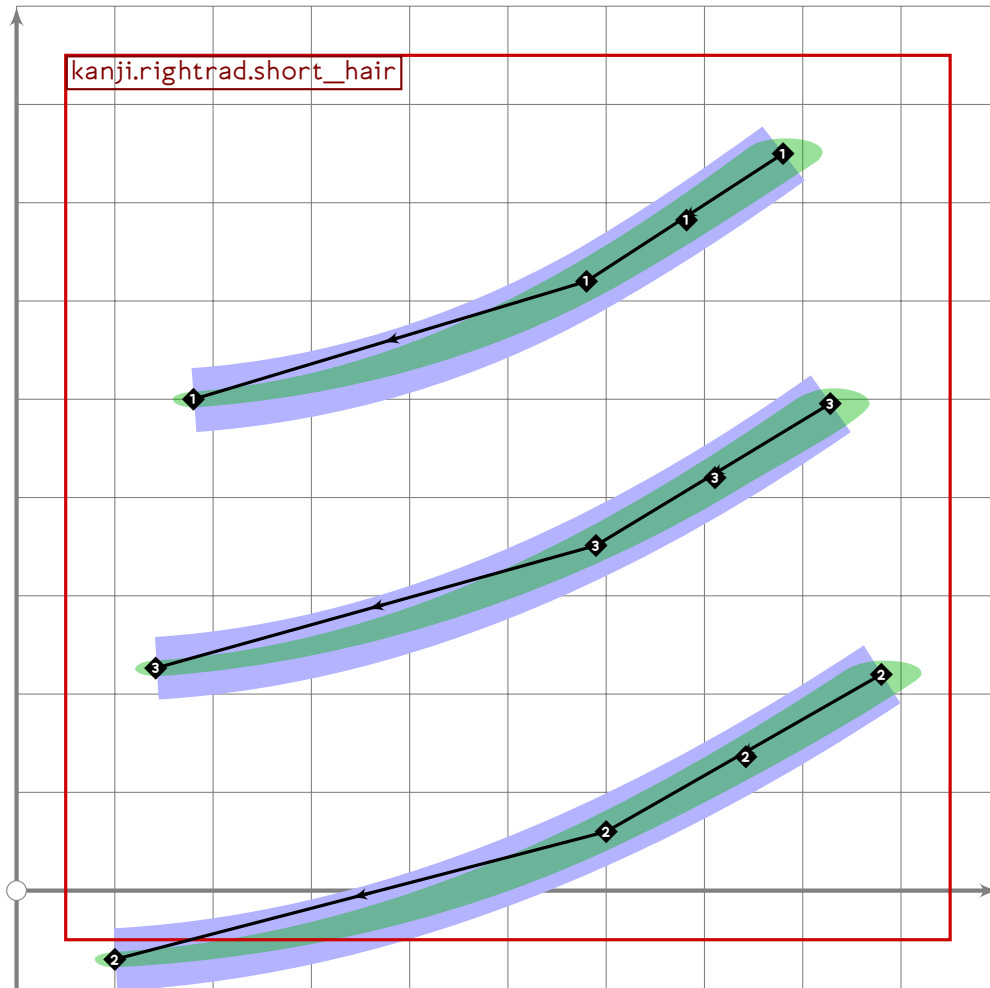
```



U+2F39  
tsuku.uni2F39



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

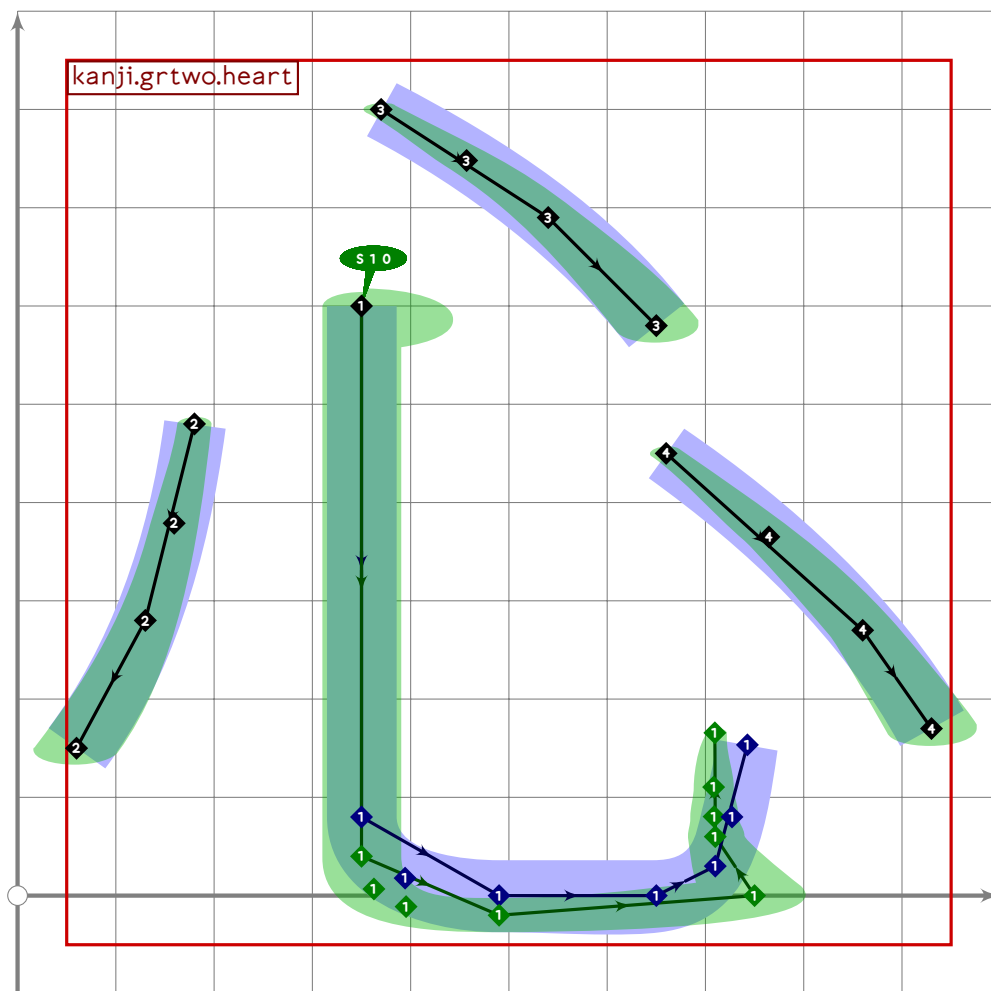


```

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

```

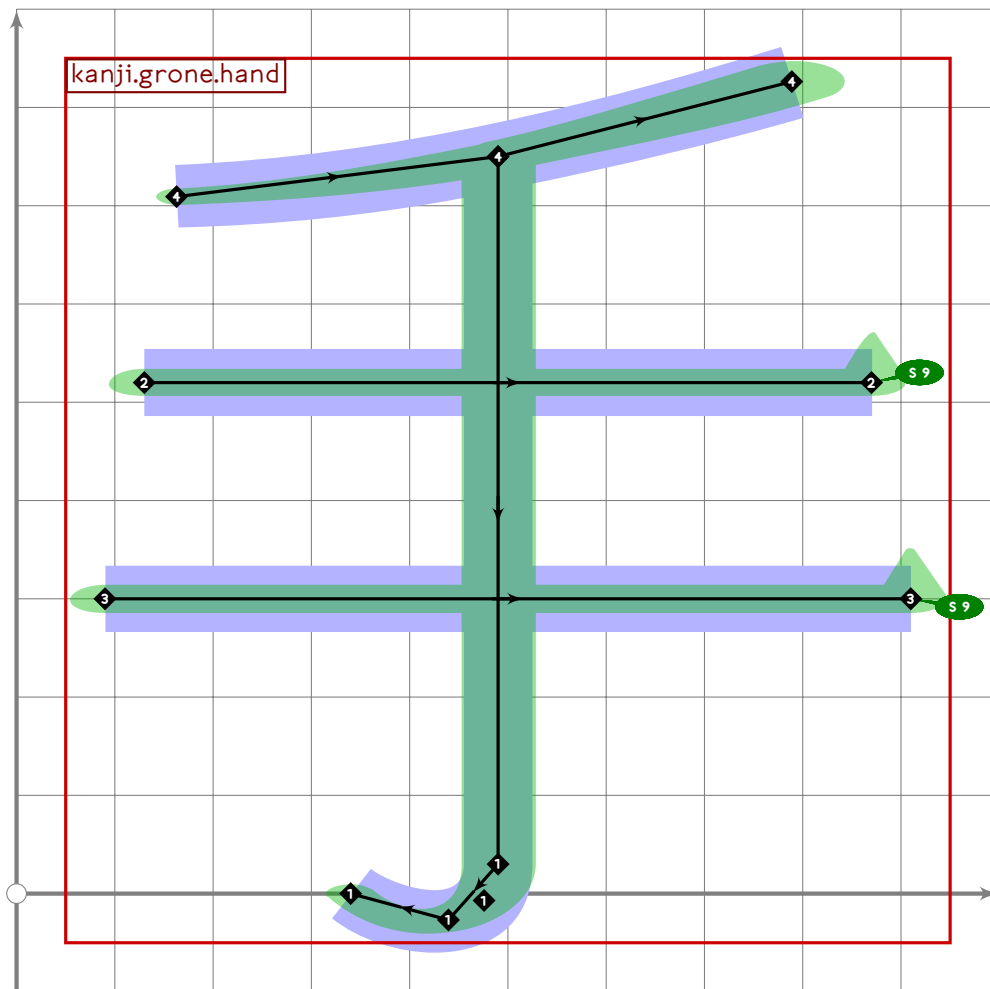
U+2F3C  
tsuku.uni2F3C



```

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

```

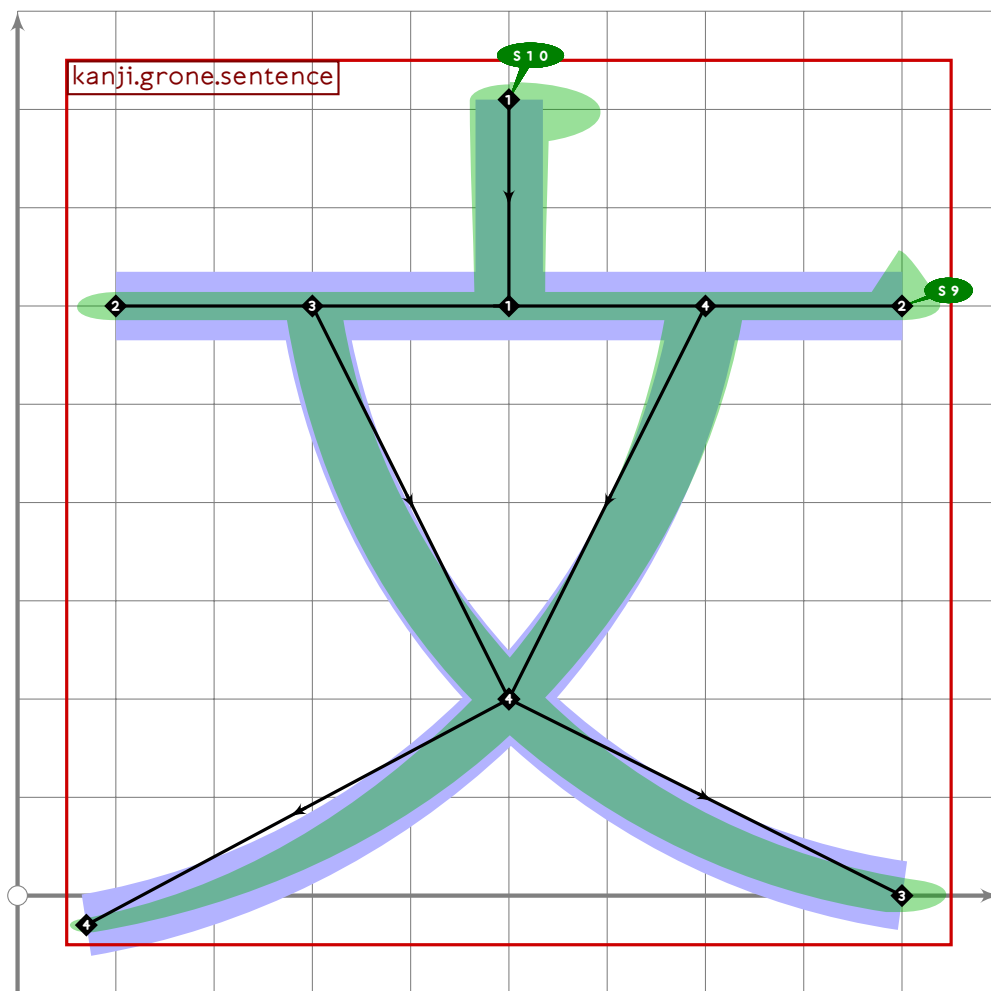


```

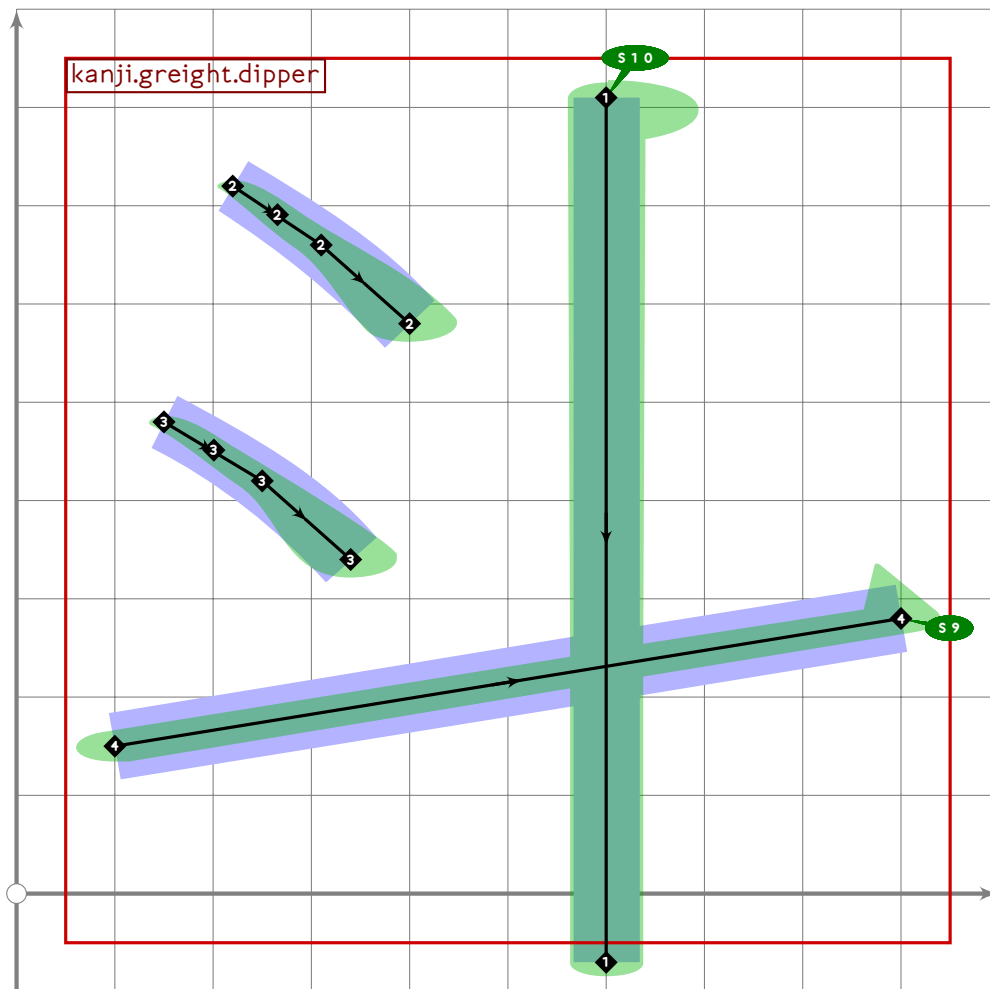
320 % te "hand"
321 begintsuglyph("uni2F3F",63);
322   kanji.grone.hand;
323   tsu_render;
324 endtsuglyph;
325

```

U+2F42  
tsuku.uni2F42



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

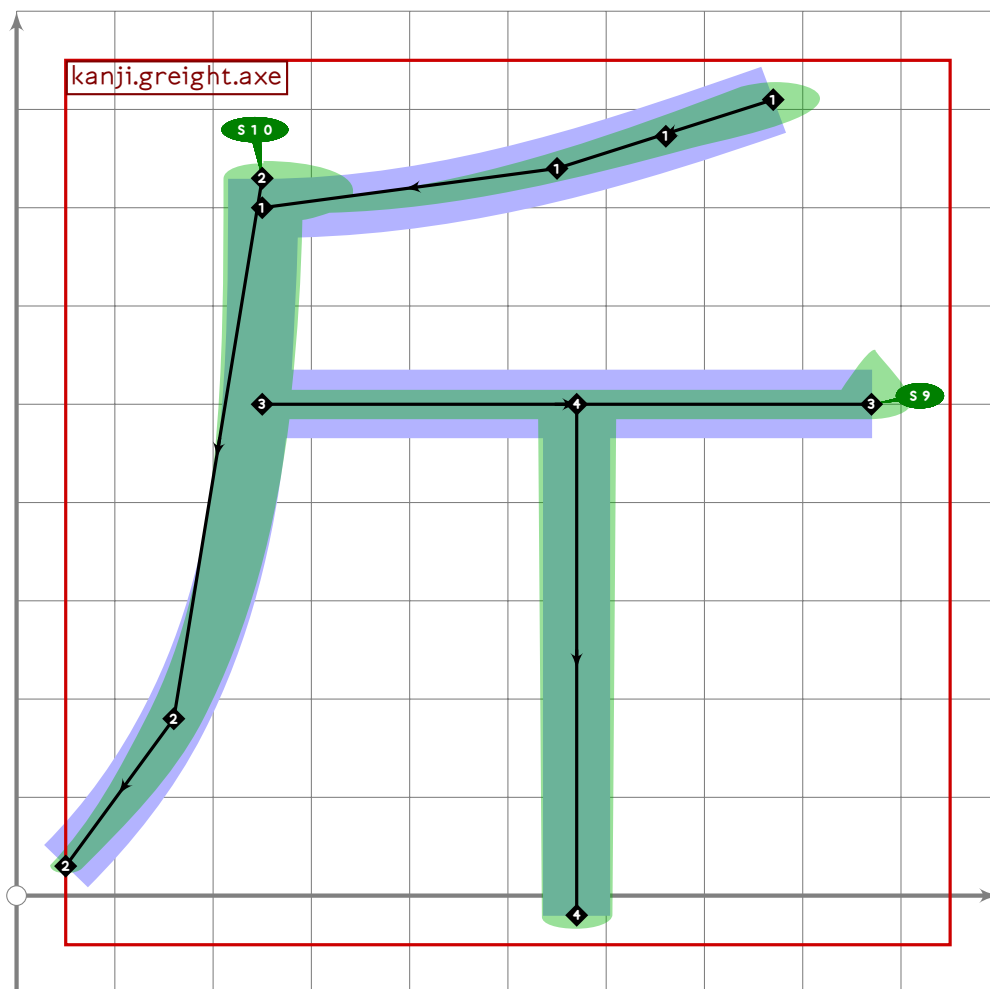


```

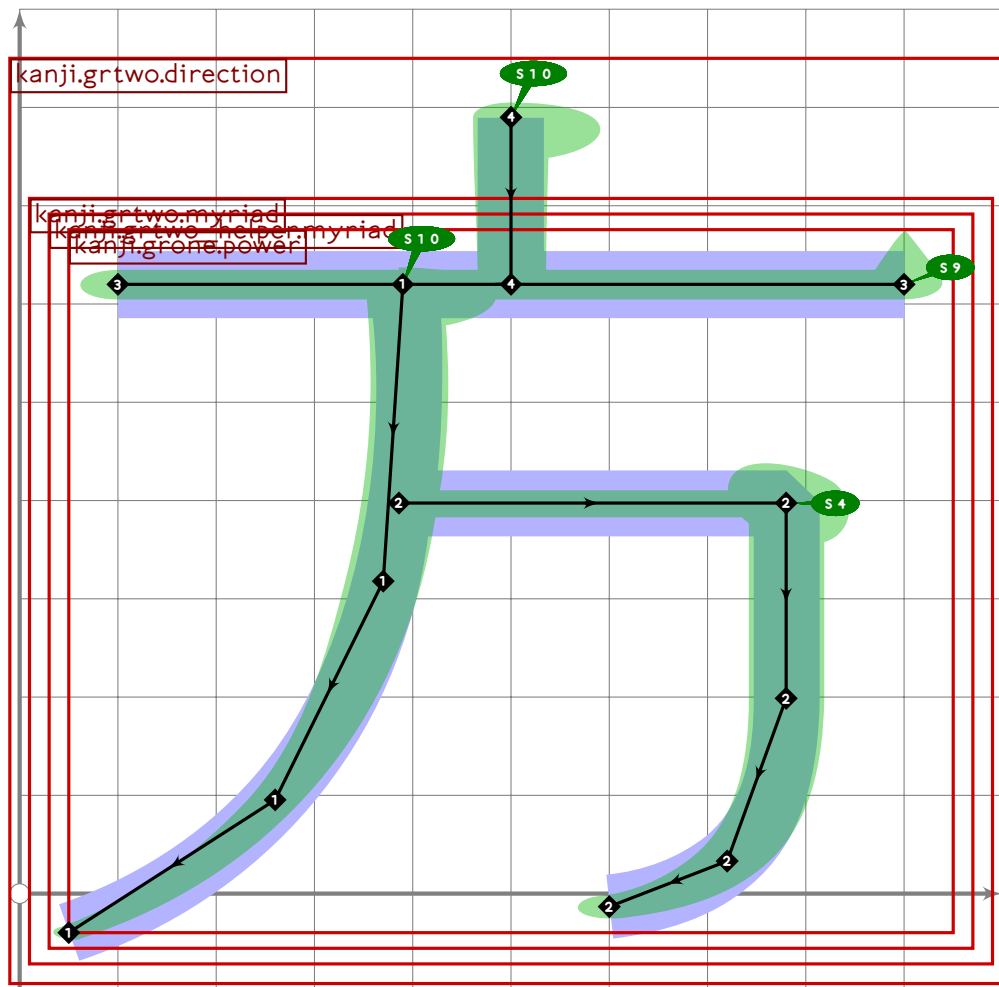
332 % to/masu "dipper"
333 begintsuglyph("uni2F43",67);
334   kanji.greight.dipper;
335   tsu_render;
336 endtsuglyph;
337

```

U+2F44  
tsuku.uni2F44



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



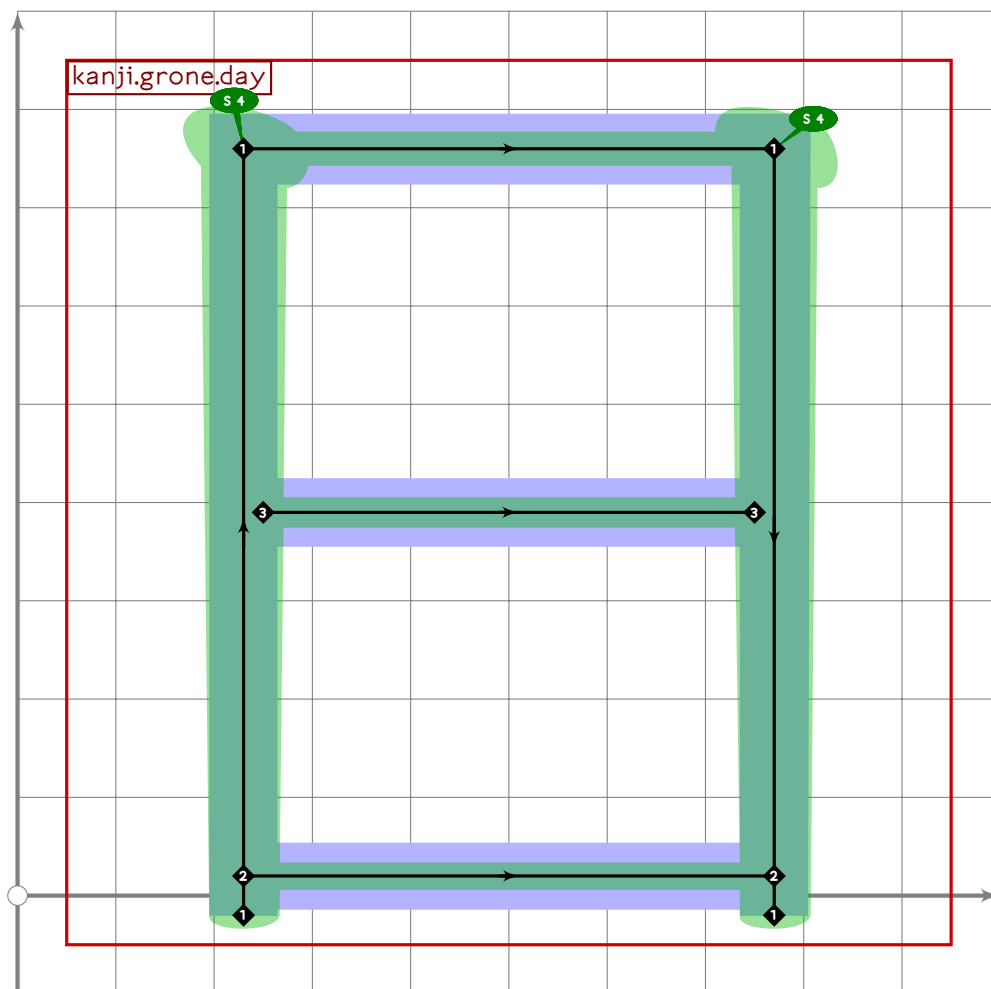
```

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

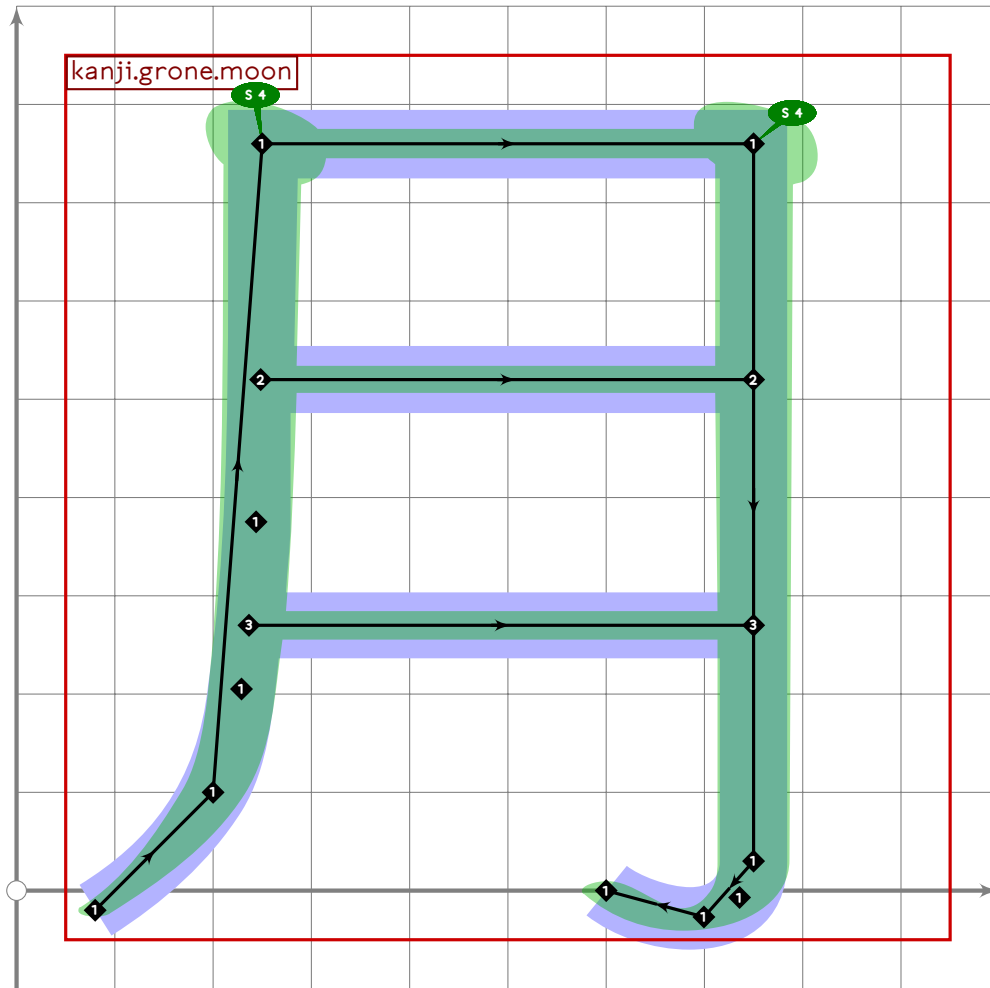
```



U+2F47  
tsuku.uni2F47



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

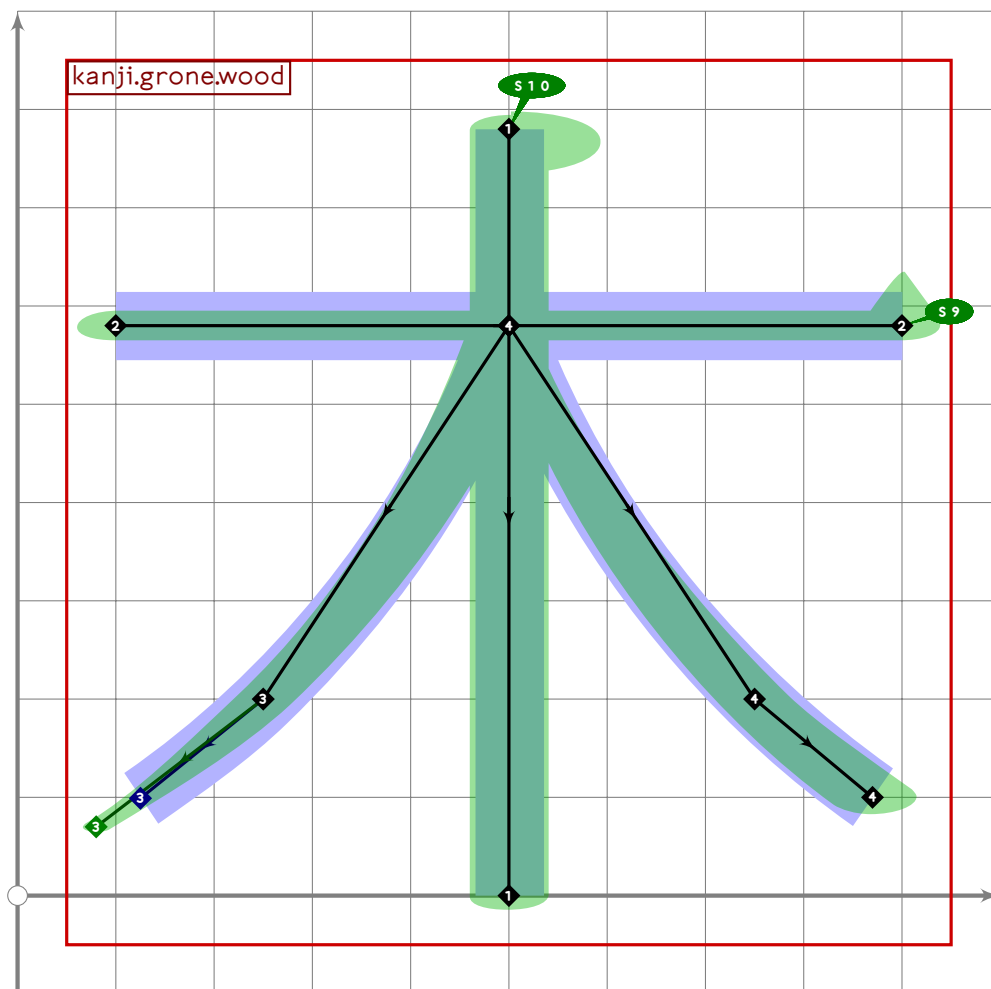


```

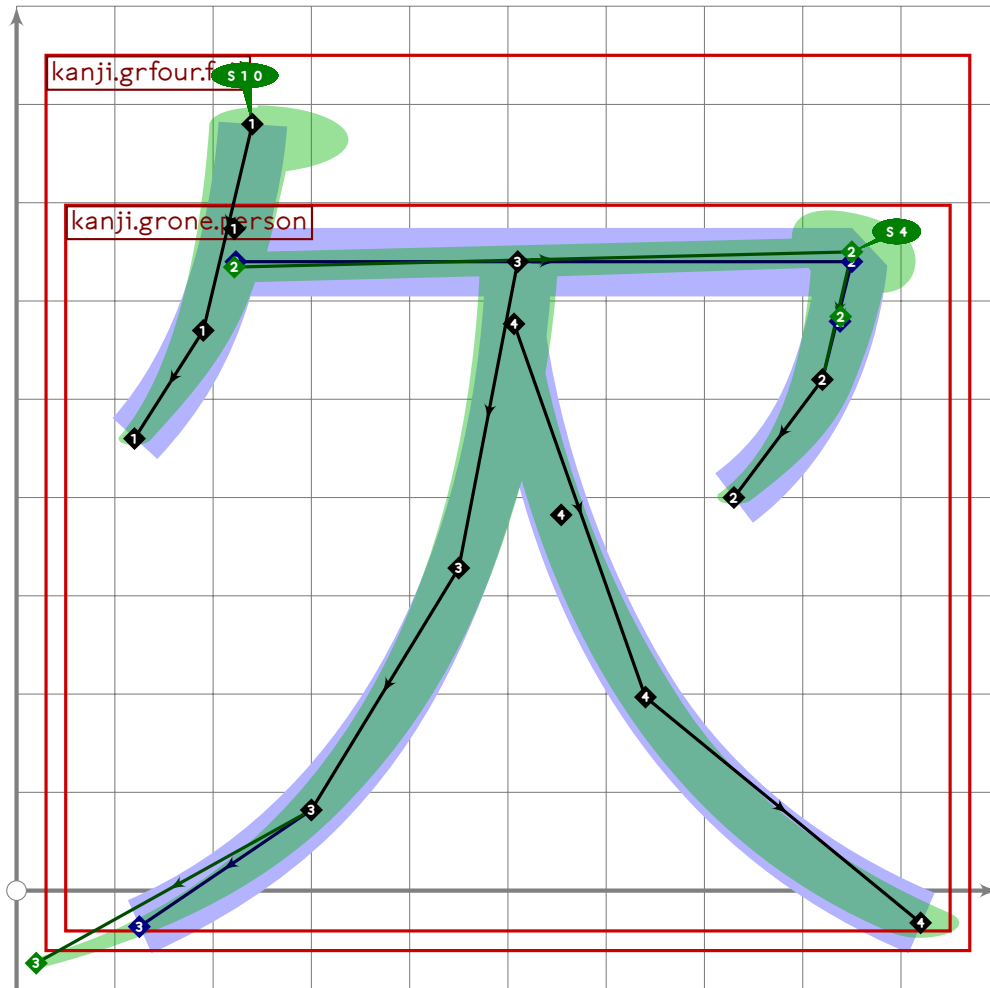
356 % tsuki/getsu "moon"
357 begint Suglyph("uni2F49";73);
358   kanji.grone.moon;
359   tsu_render;
360 endtsuglyph;
361

```

U+2F4A  
tsuku.uni2F4A



```
362 % ki "wood"  
363 beginsuglyph("uni2F4A";74);  
364   kanji.grone.wood;  
365   tsu_render;  
366 endsuglyph;  
367
```

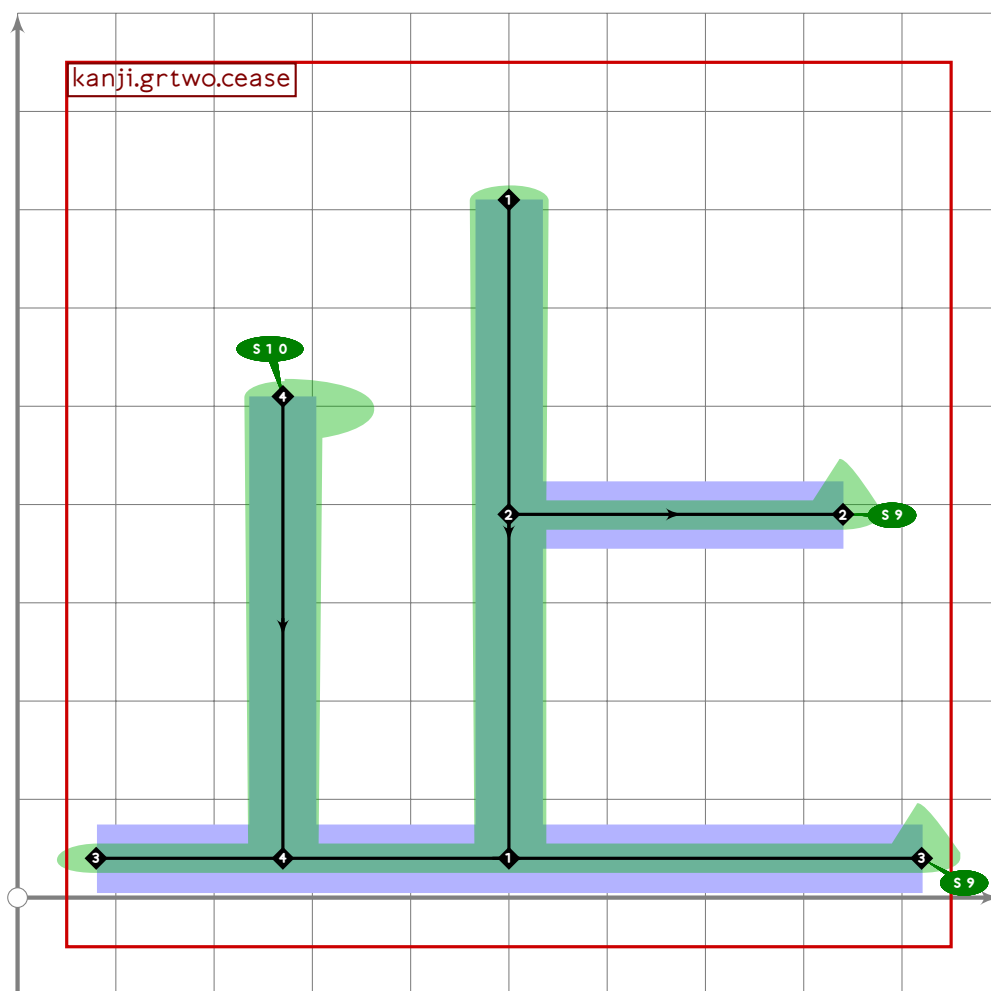


```

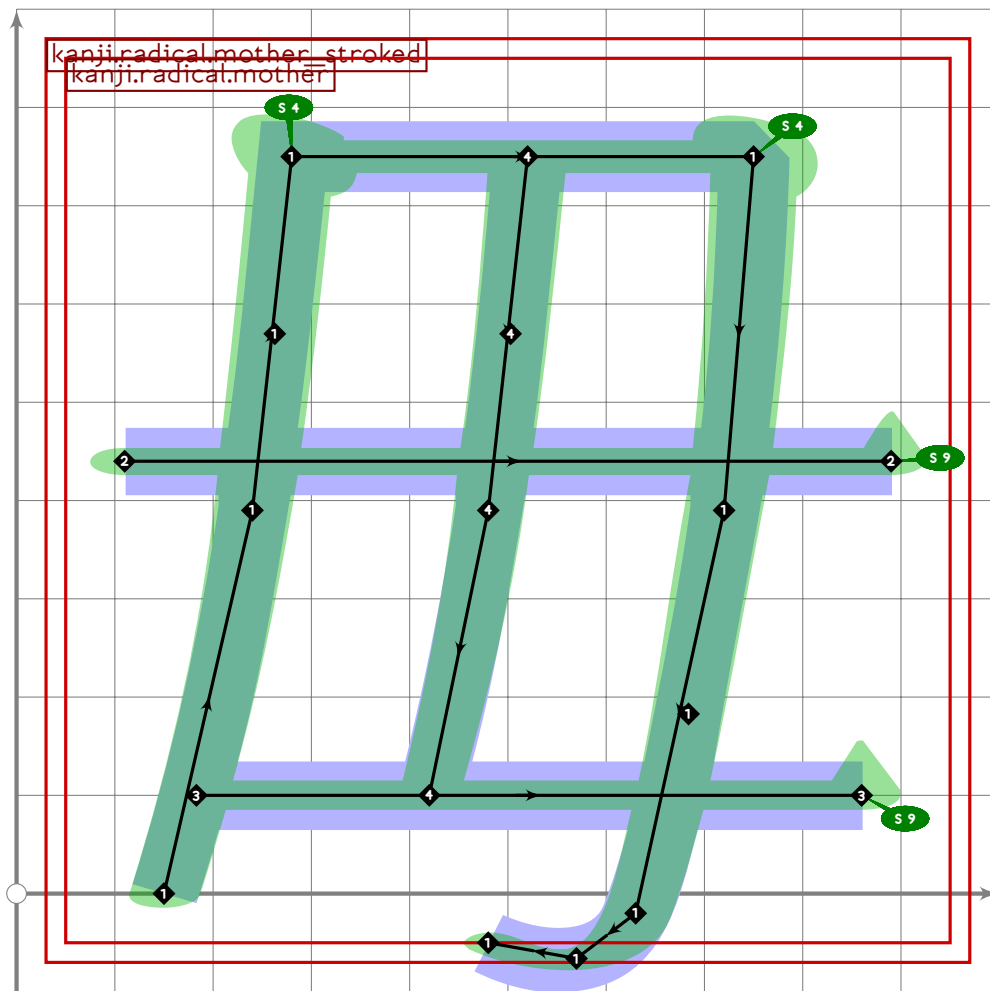
368 % ketsu/ka/akubi "fail" or "yawn"
369 beginsuglyph("uni2F4B";75);
370 kanji.grfour.fail;
371 tsu_render;
372 endsuglyph;
373

```

U+2F4C  
tsuku.uni2F4C



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

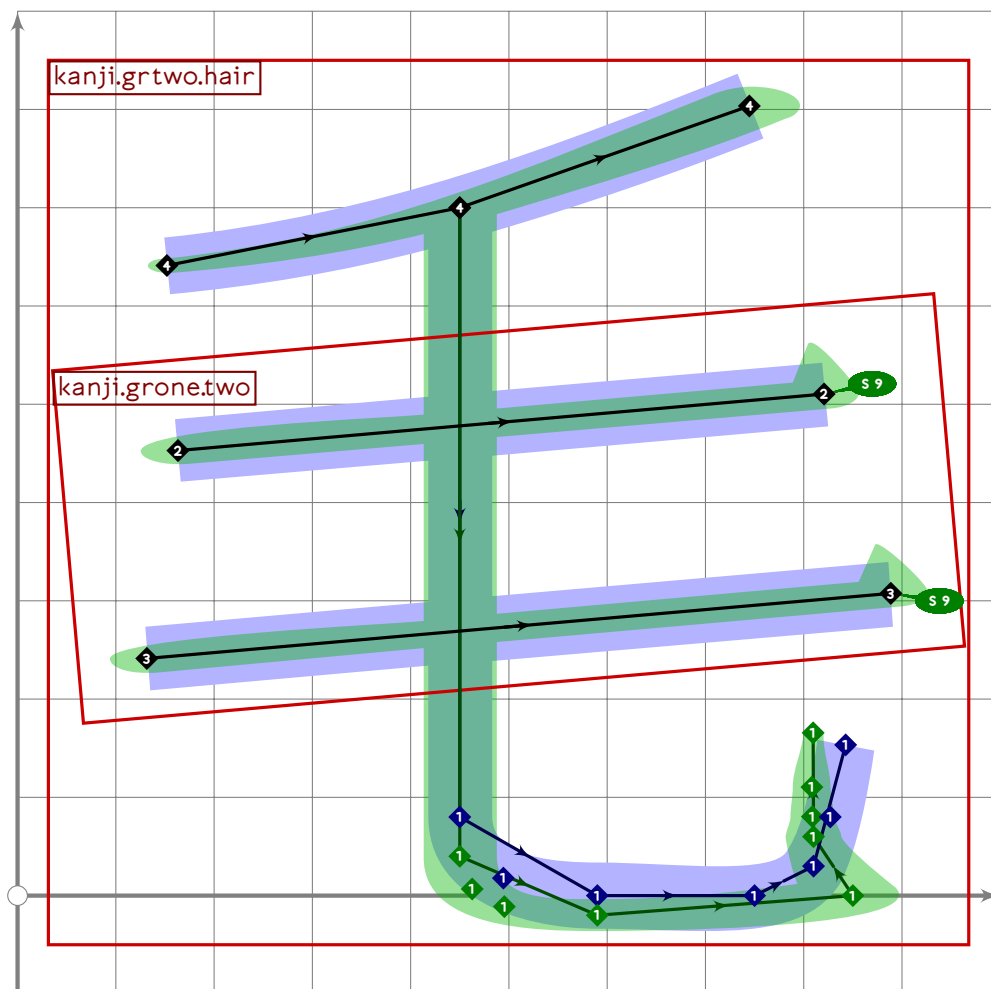


```

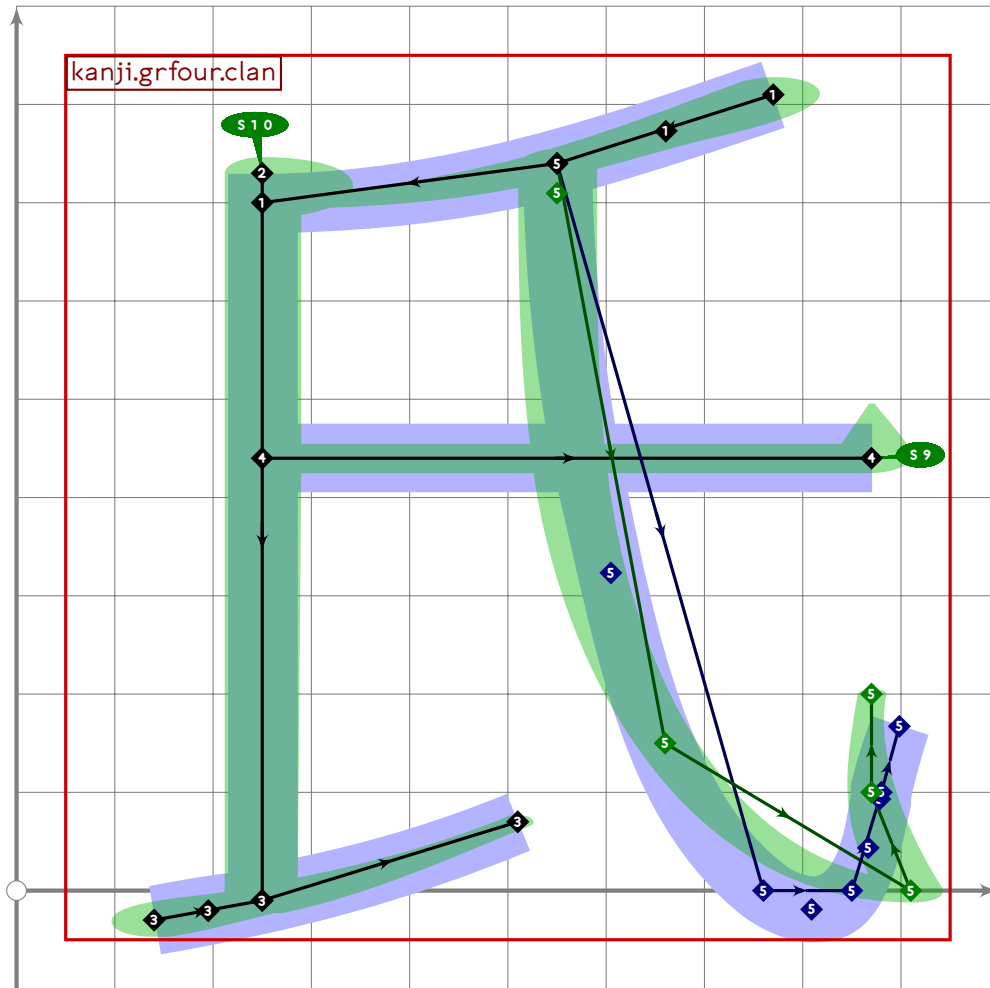
380 % extra: mother radical, stroked version
381 beginsuglyph("uni2F4F";79);
382   kanji.radical.mother_stroked;
383   tsu_render;
384 endsuglyph;
385

```

U+2F51  
tsuku.uni2F51



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



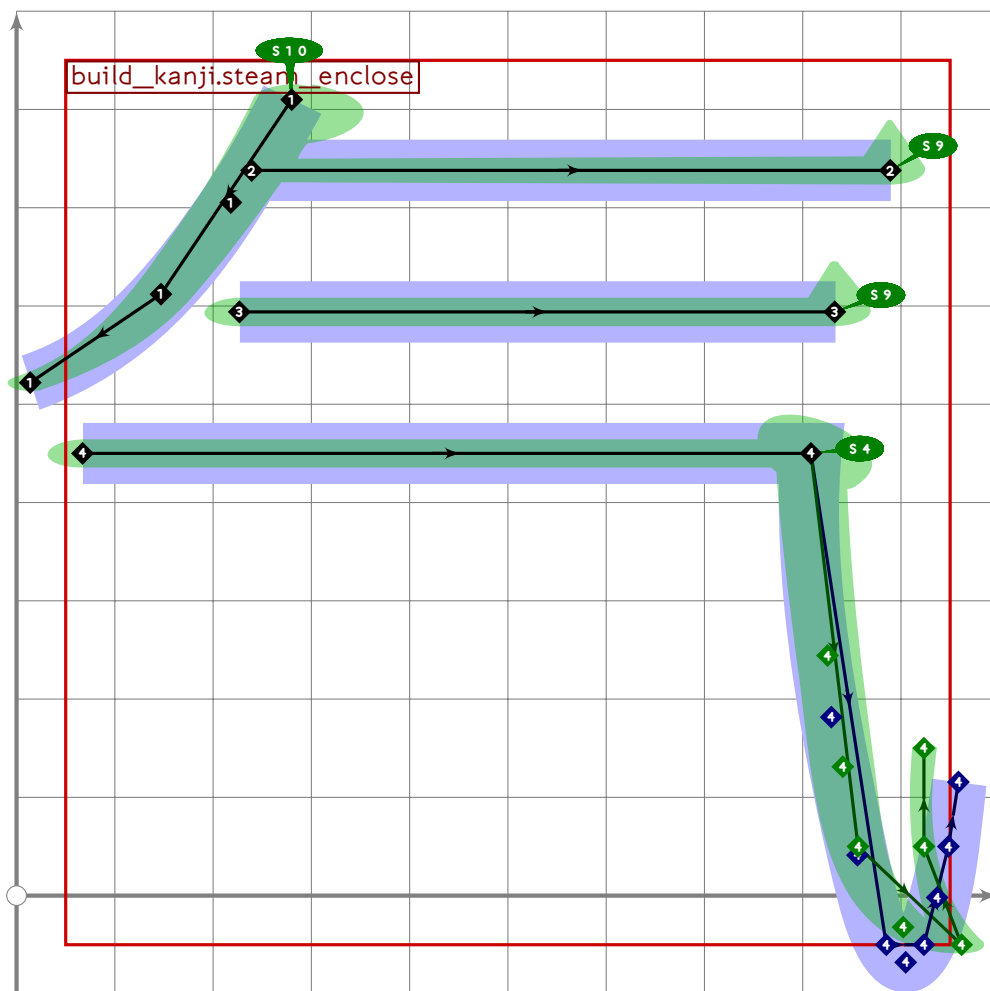
```

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

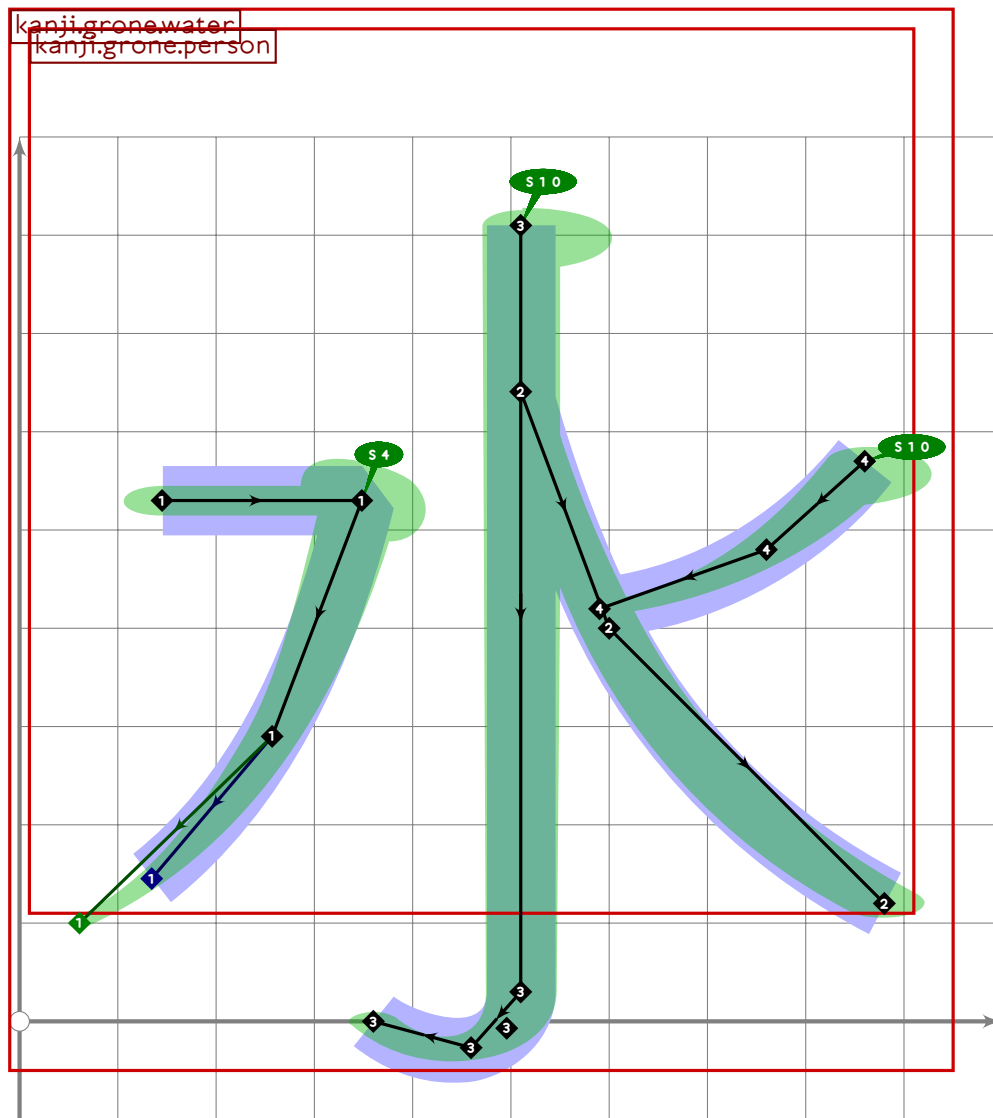
```



U+2F53  
tsuku.uni2F53



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

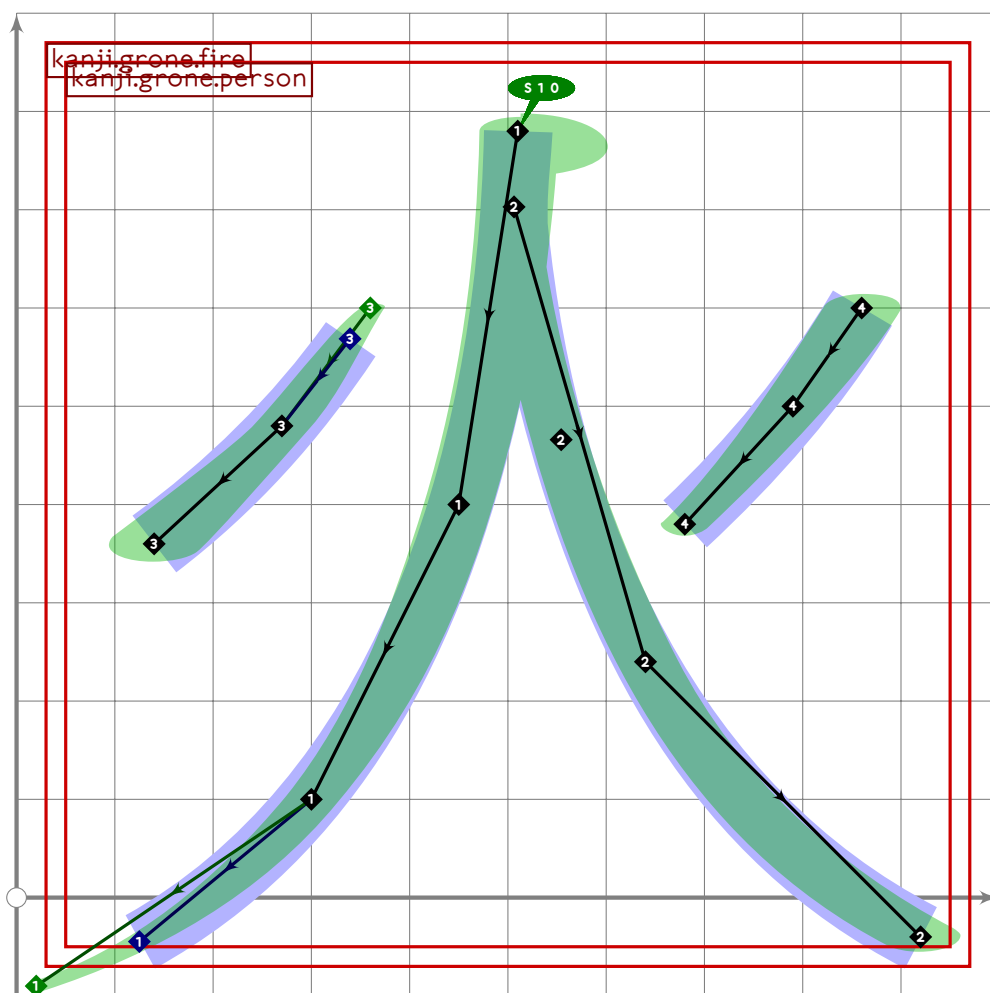


```

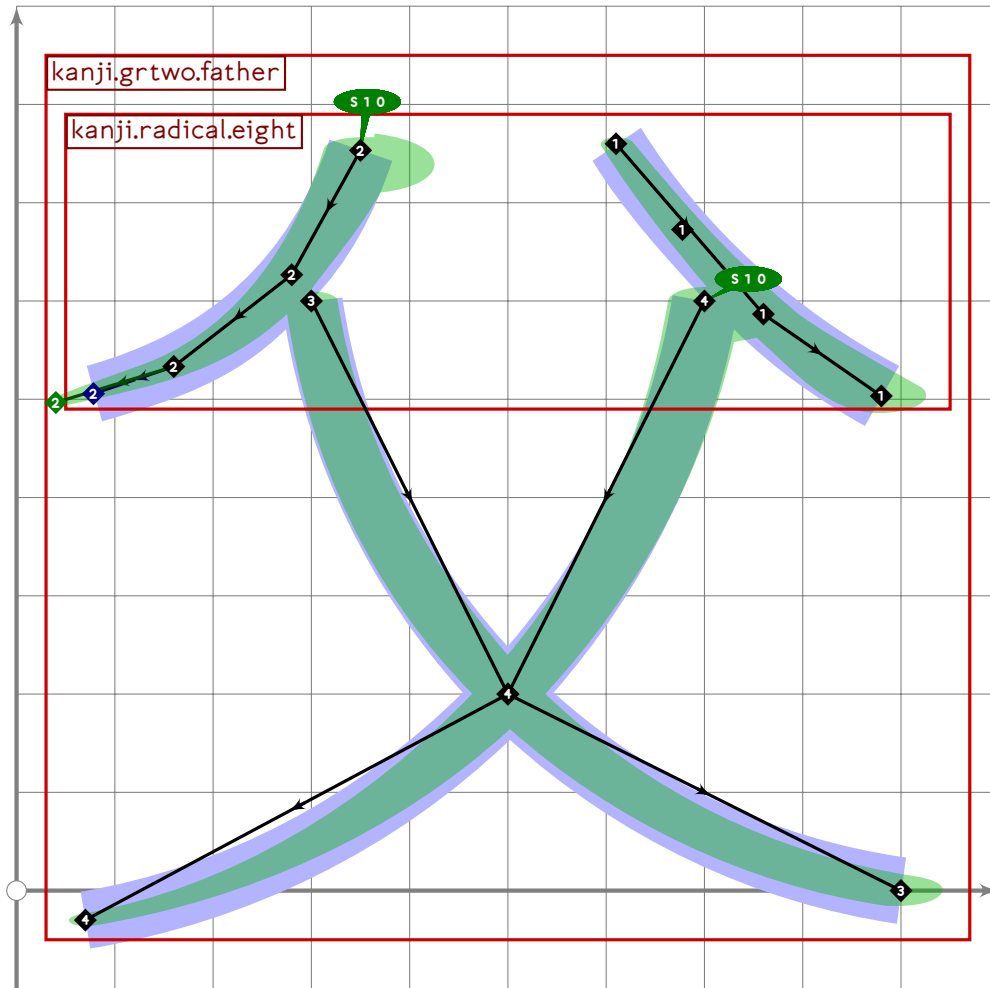
404 % sui/mizu "water"
405 begintsuglyph("uni2F54";84);
406   kanji.grone.water;
407   tsu_render;
408 endtsuglyph;
409

```

U+2F55  
tsuku.uni2F55



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

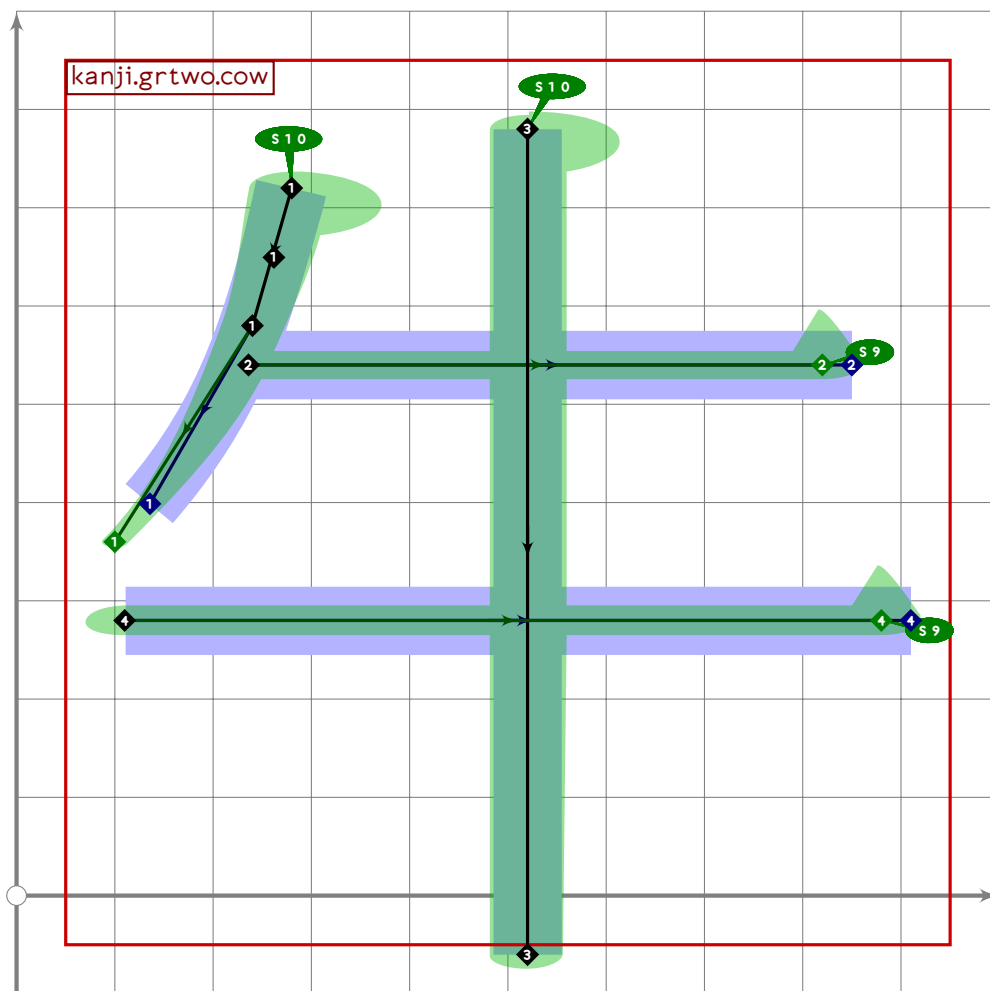


```

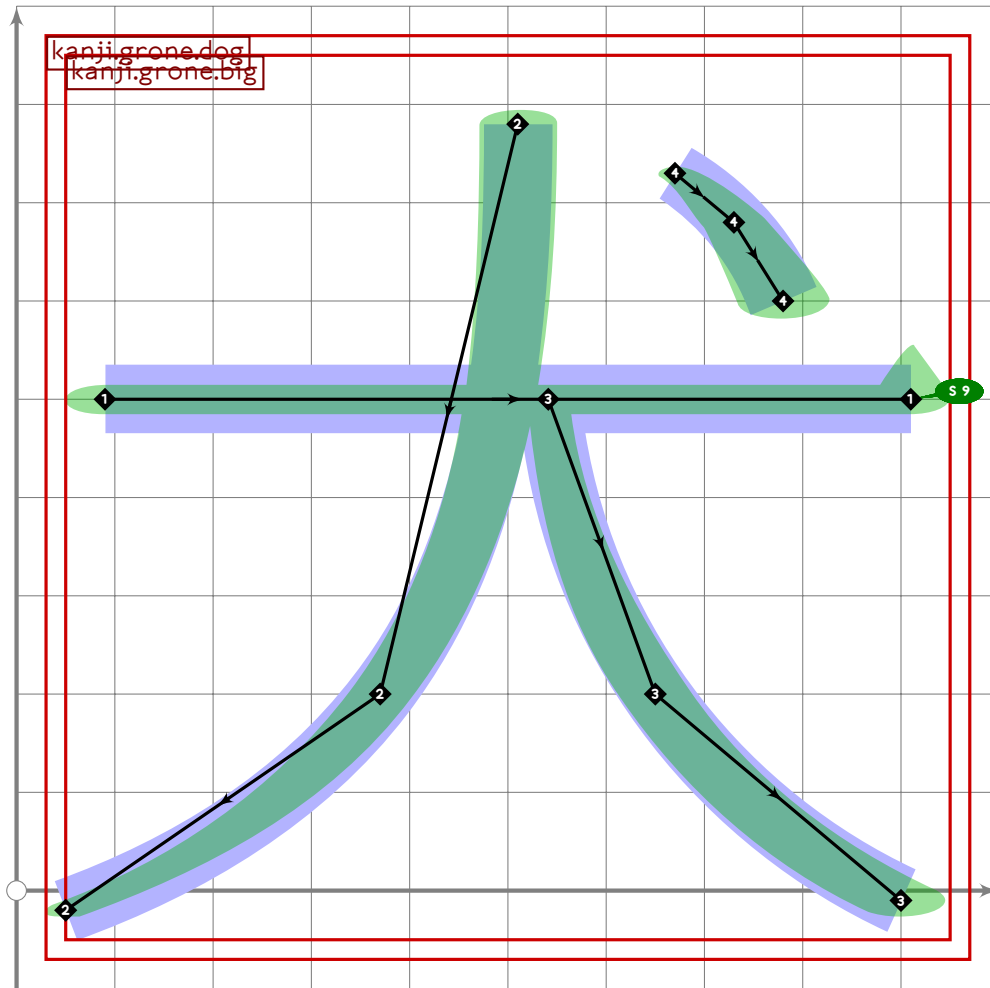
416 % chichi "father"
417 begintsuglyph("uni2F57";87);
418   kanji.grtwo.father;
419   tsu_render;
420 endtsuglyph;
421

```

U+2F5C  
tsuku.uni2F5C



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

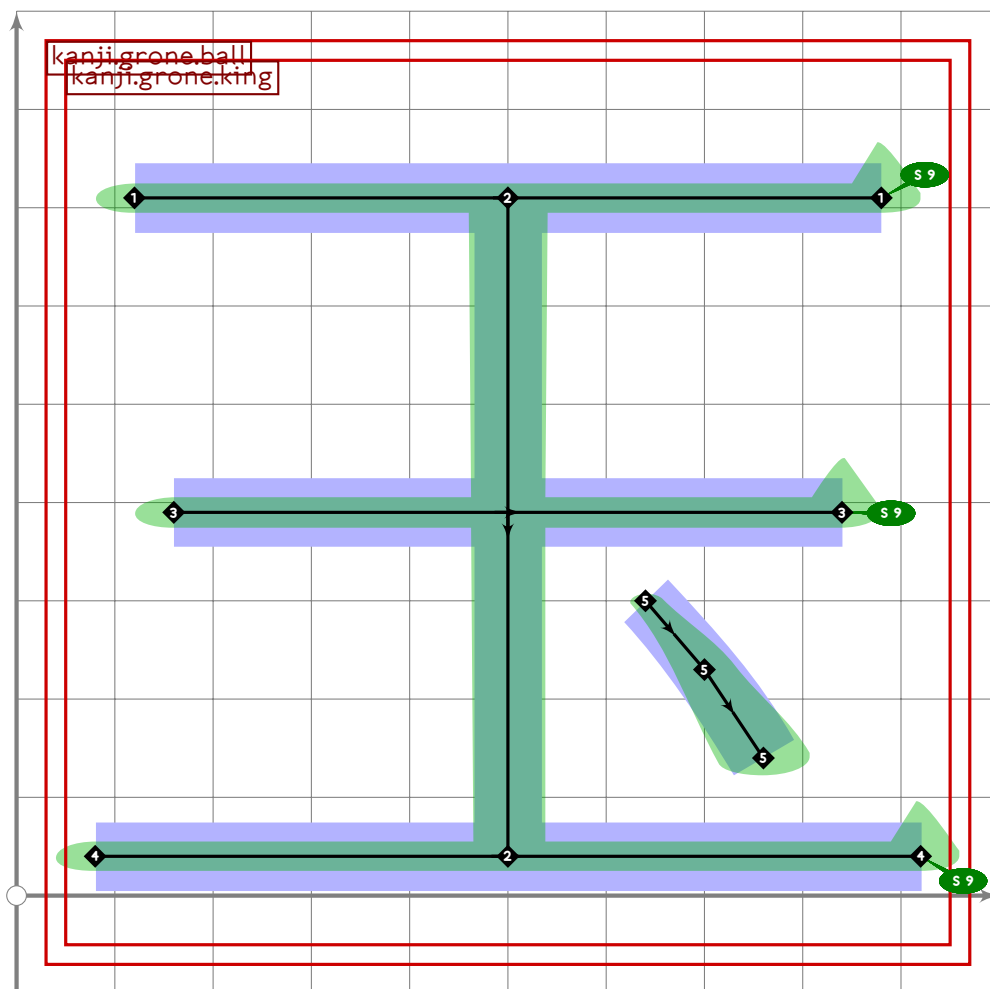


```

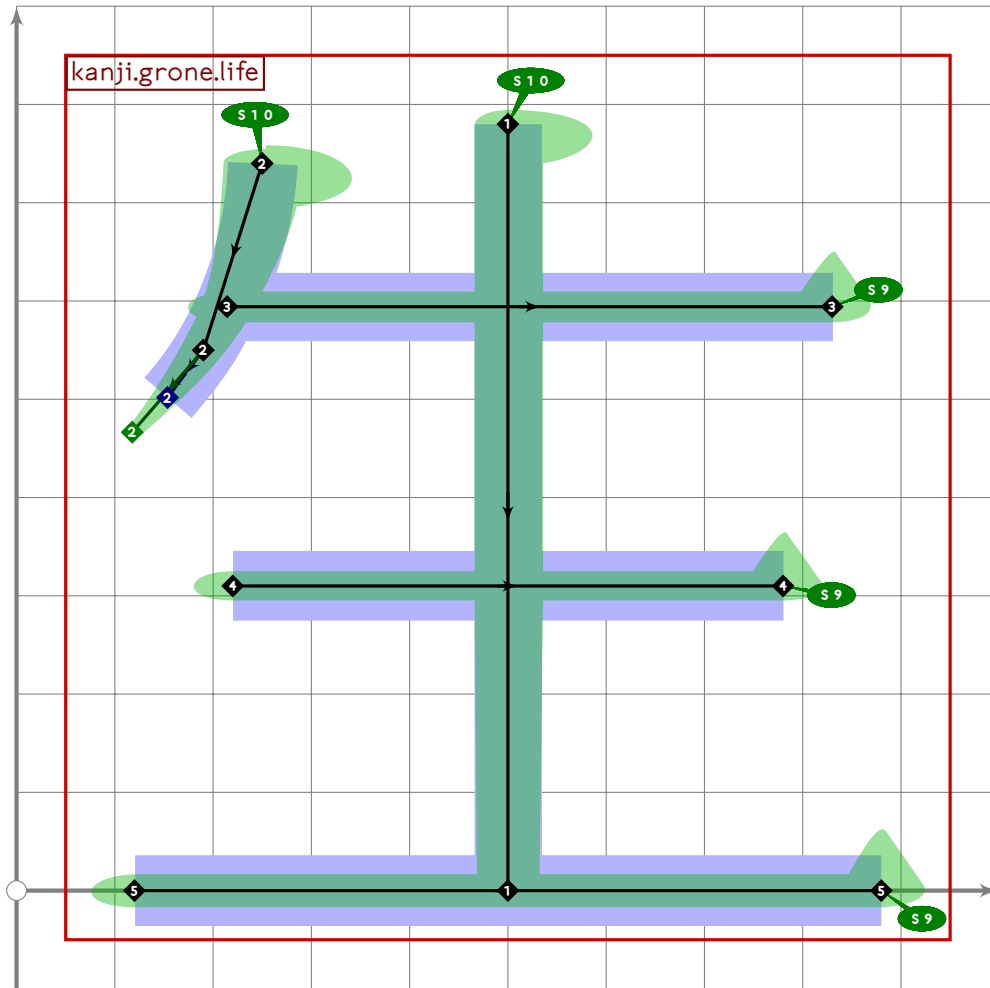
428 % inu "dog"
429 begintsuglyph("uni2F5D";93);
430   kanji.grone.dog;
431   tsu_render;
432 endtsuglyph;
433

```

U+2F5F  
tsuku.uni2F5F



```
434 % gyoku/tama "ball" or "precious"  
435 begint Suglyph("uni2F5F";95);  
436   kanji.grone.ball;  
437   tsu_render;  
438 endtsuglyph;  
439
```



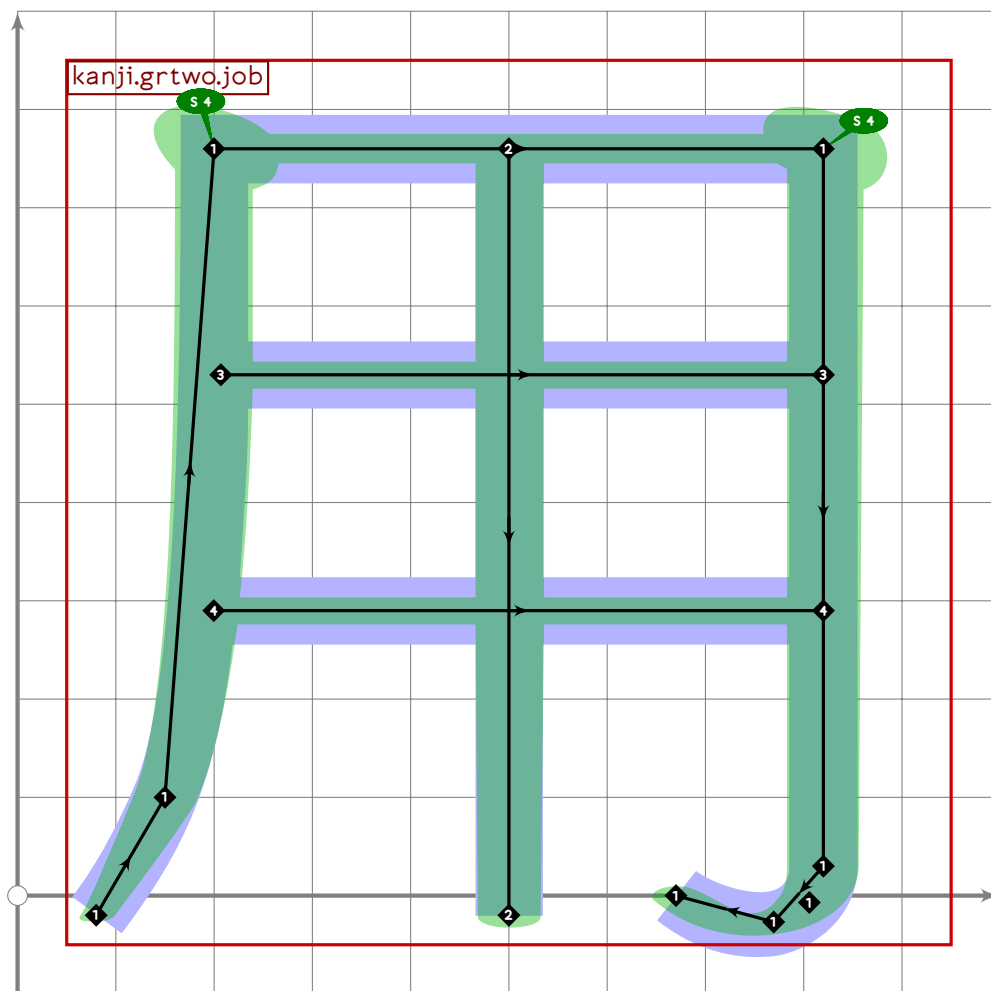
```

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

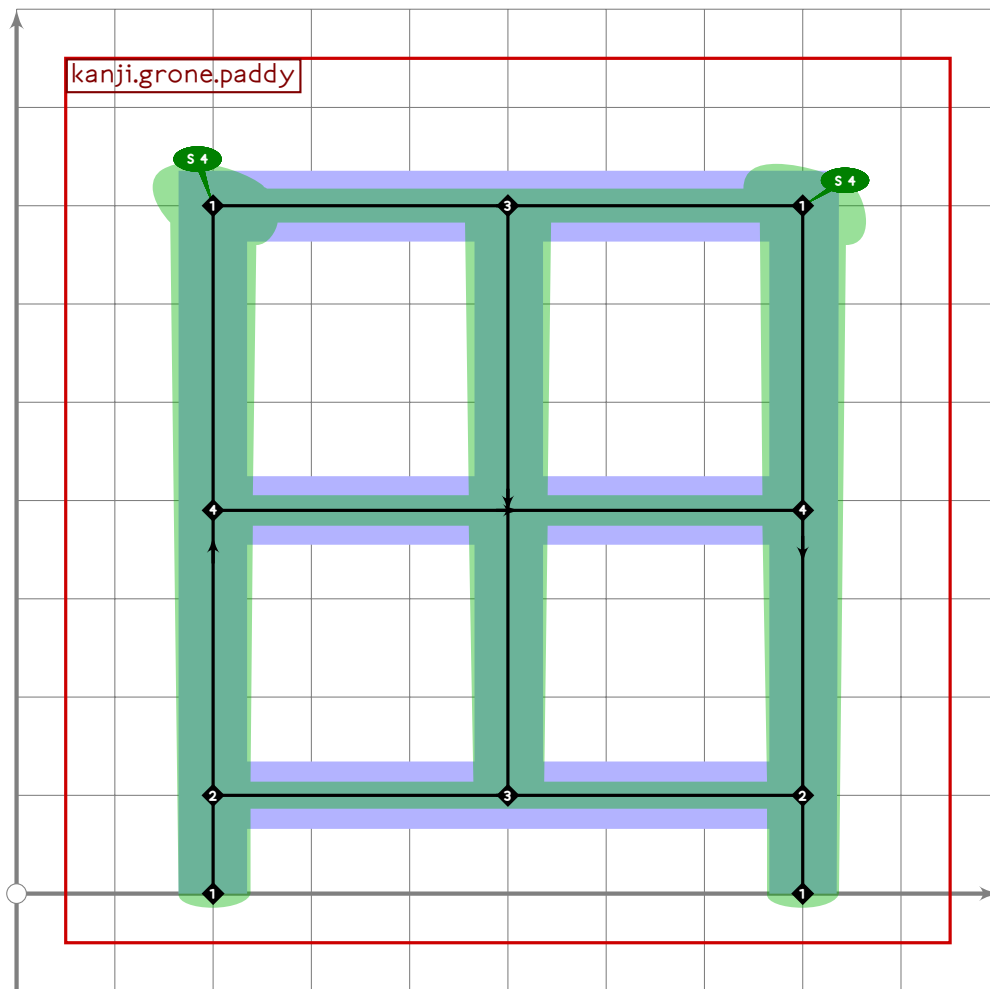
```



U+2F64  
tsuku.uni2F64



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

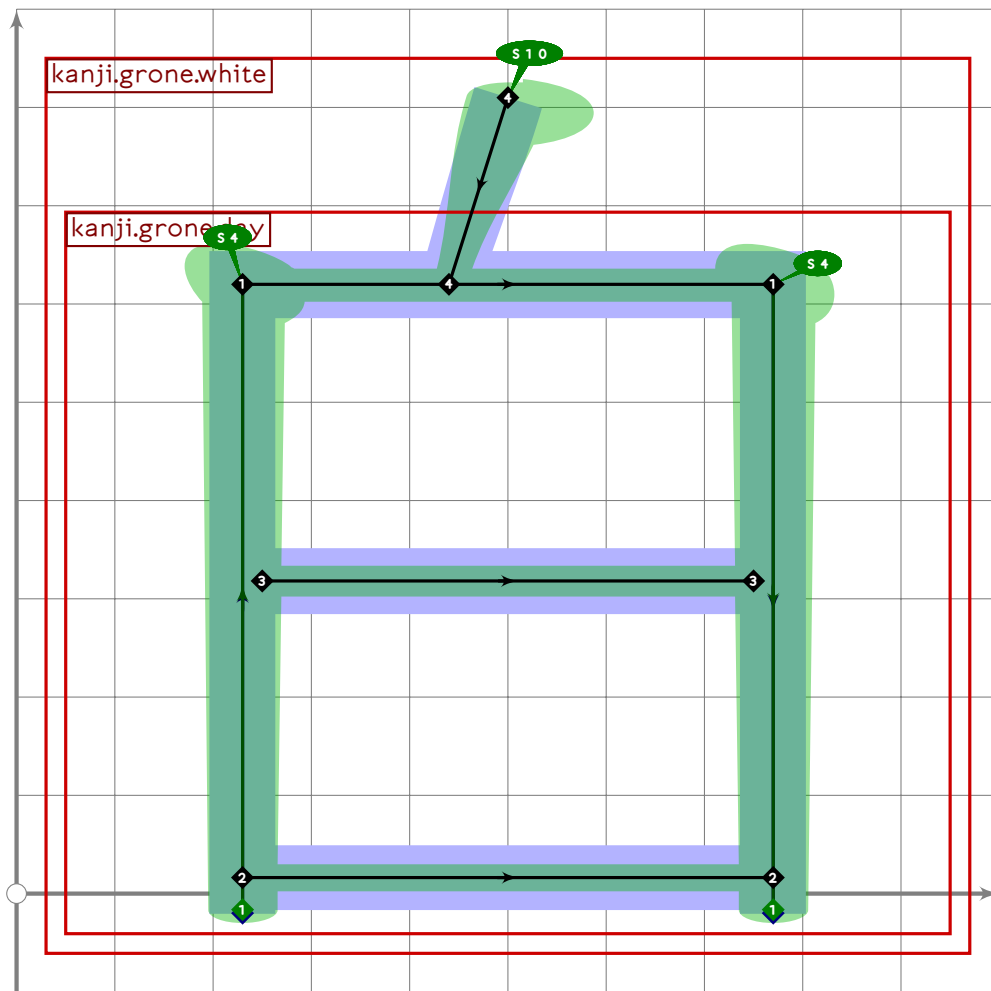


```

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

```

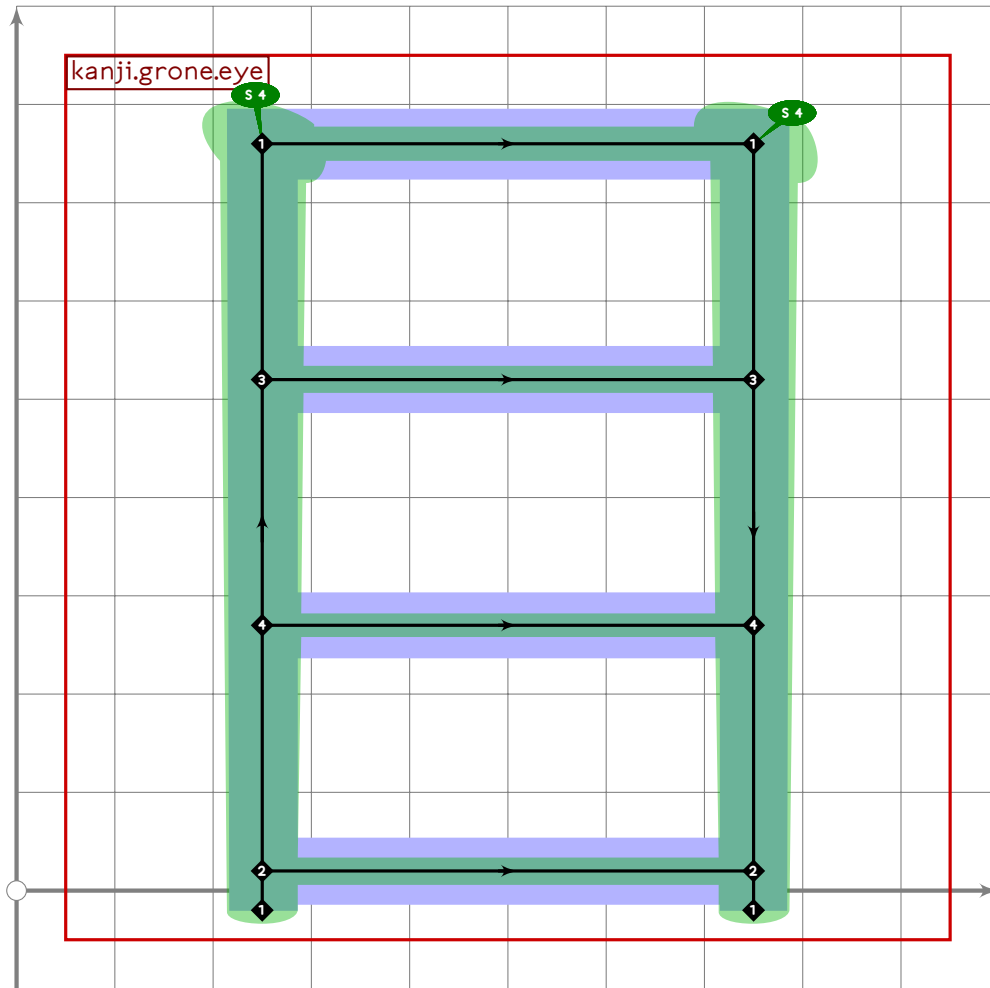
U+2F69  
tsuku.uni2F69



```

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

```

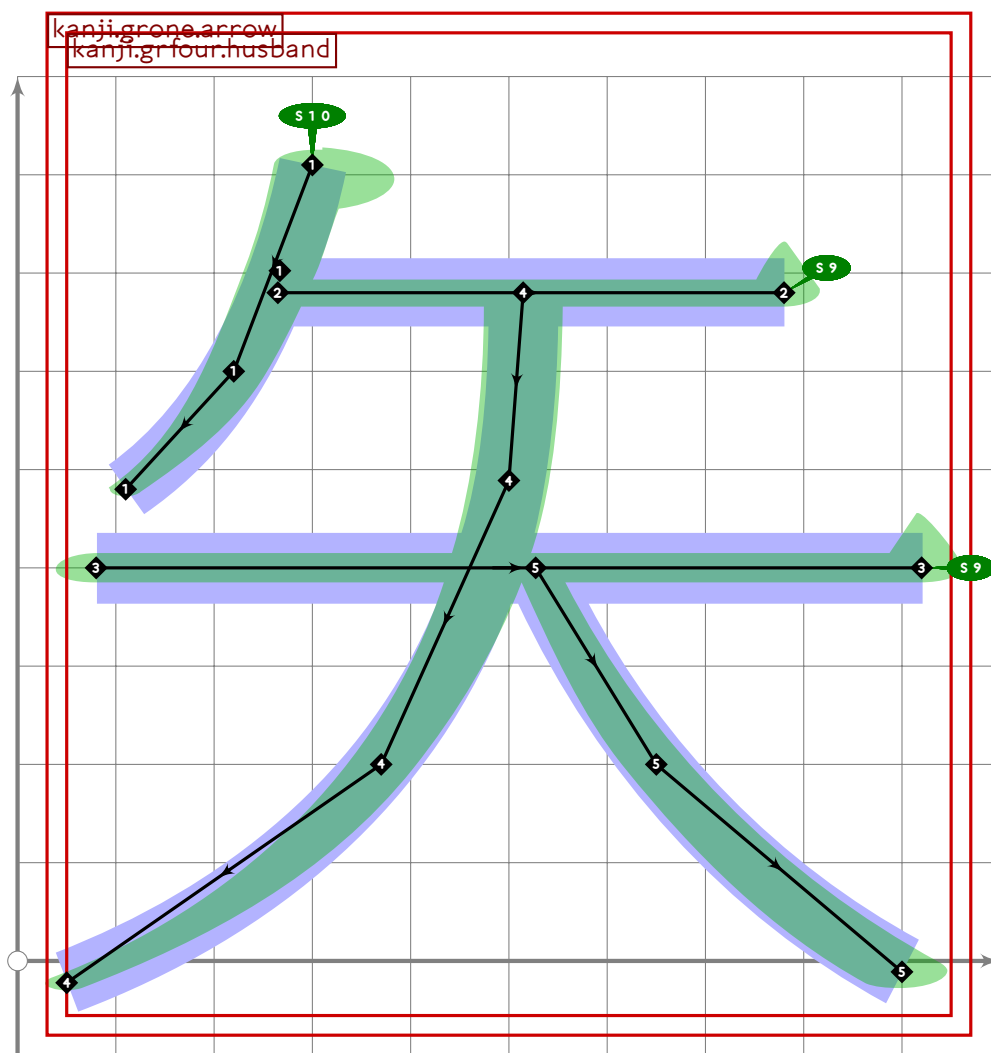


```

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

```

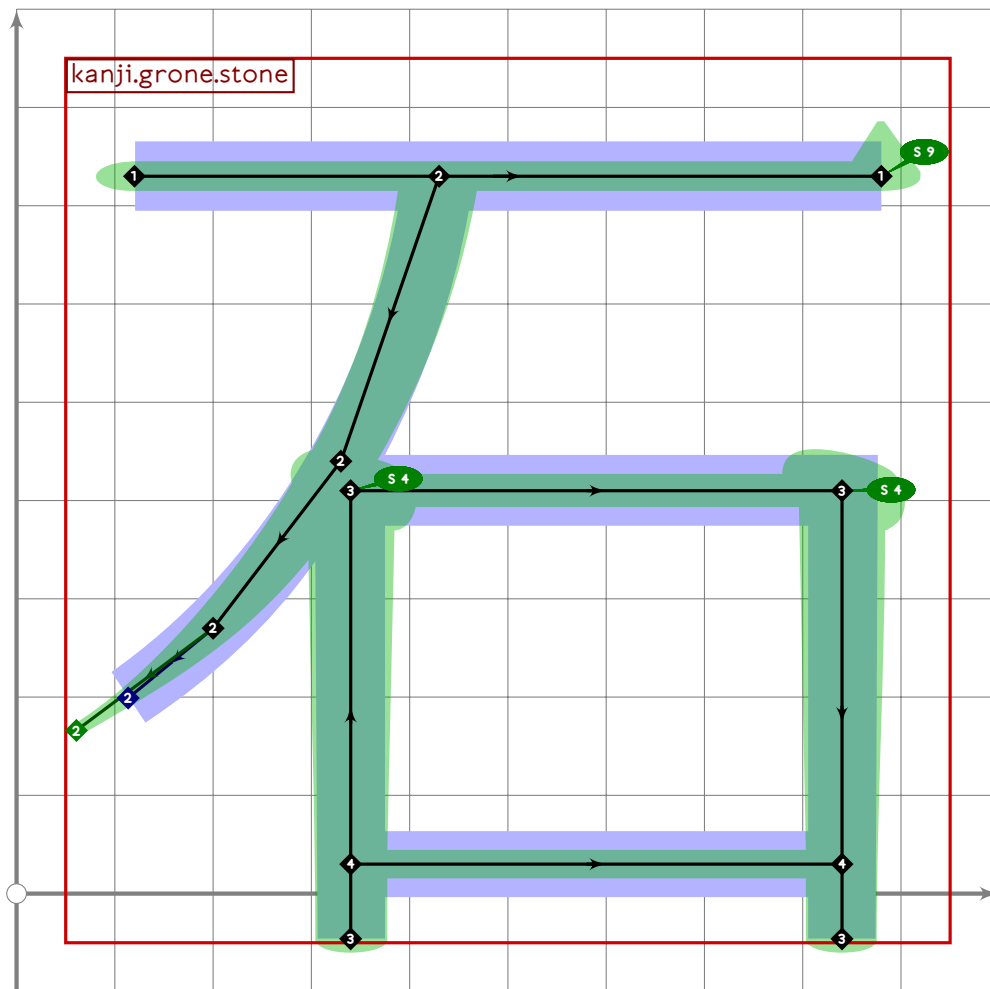
U+2F6E  
tsuku.uni2F6E



```

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

```

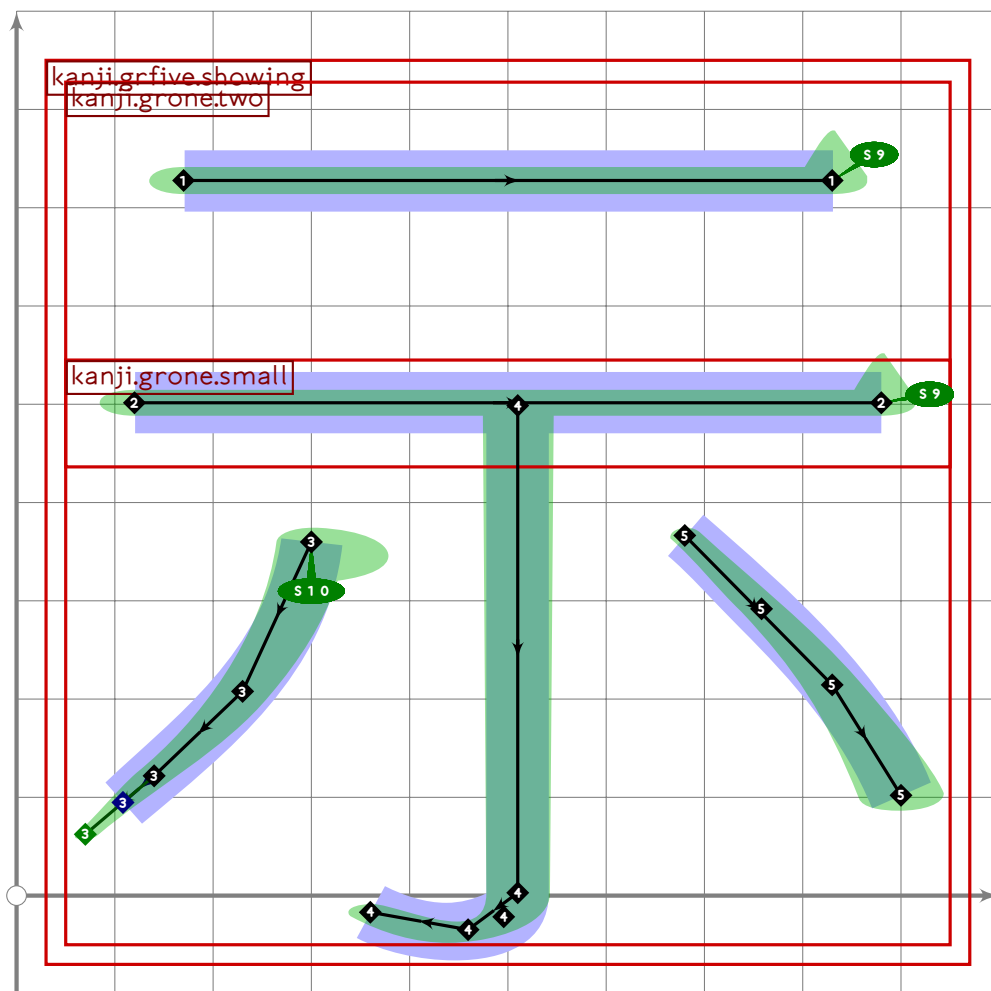


```

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

```

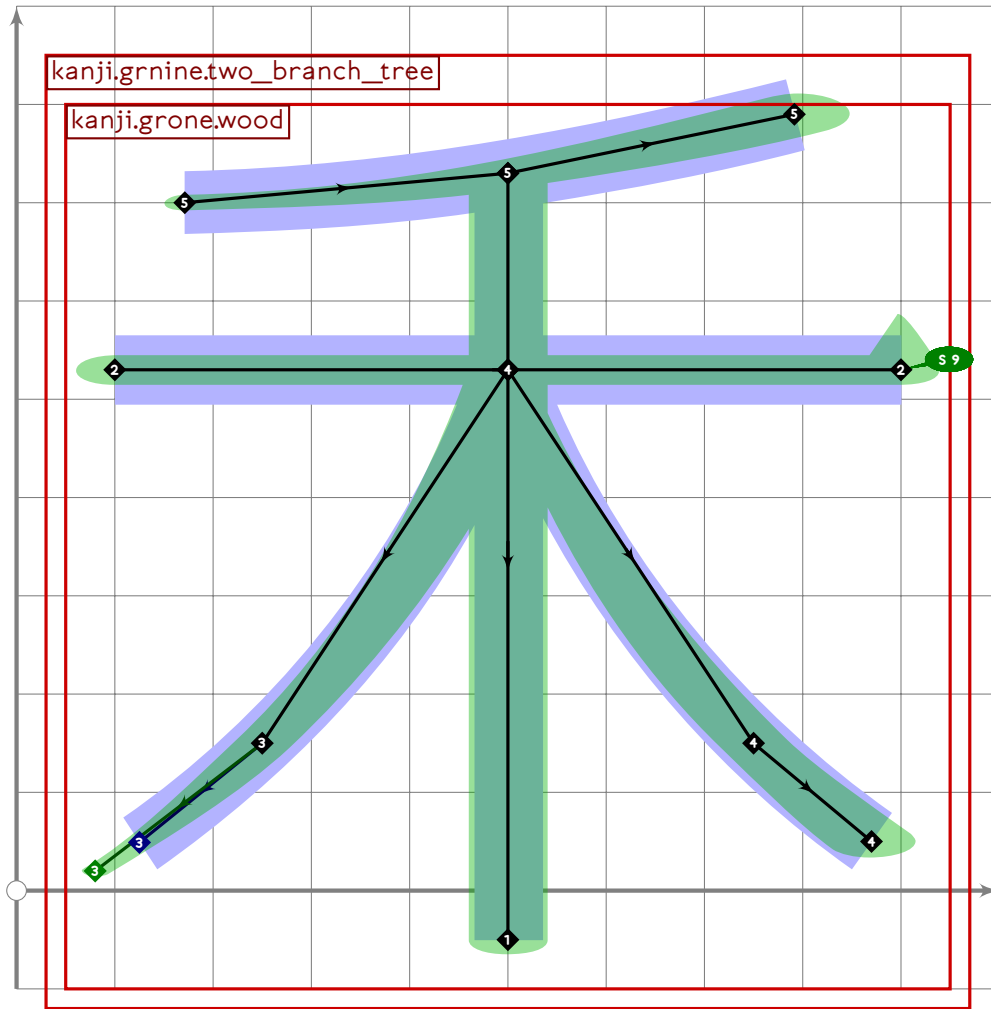
U+2F70  
tsuku.uni2F70



```

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

```



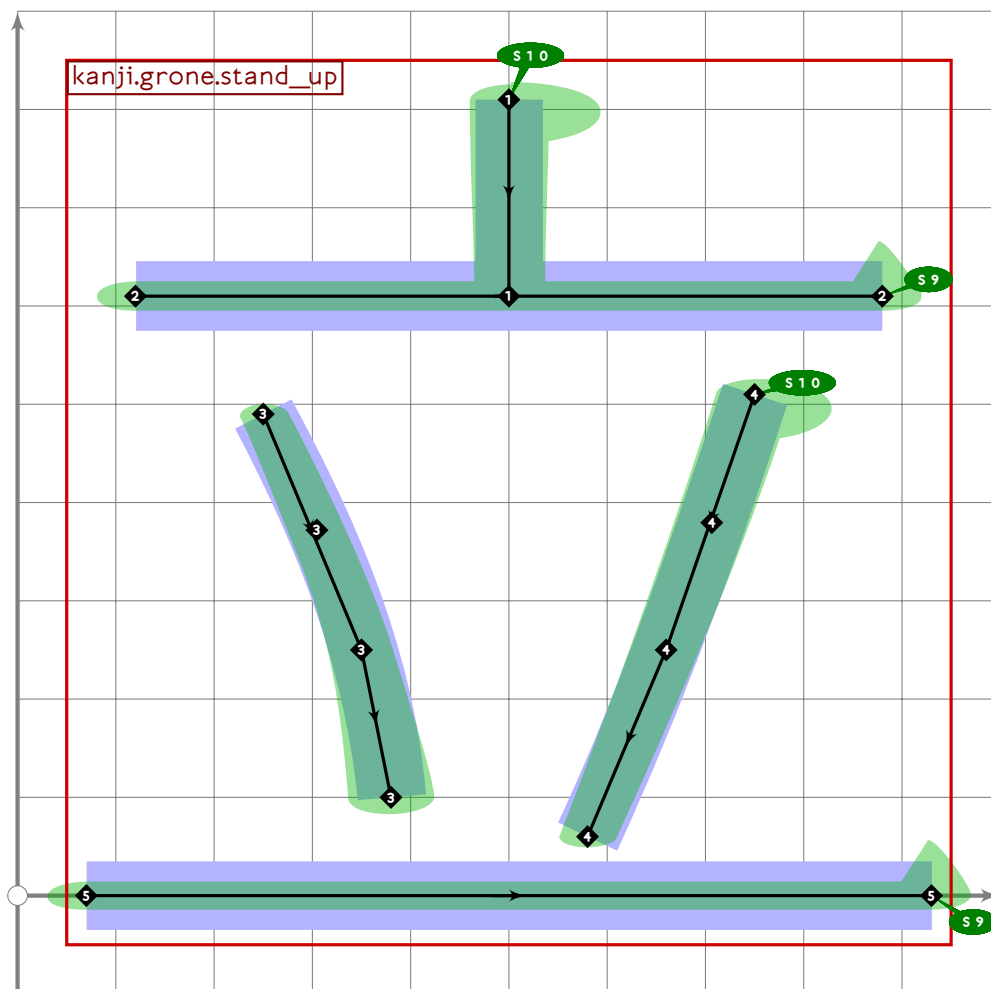
```

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

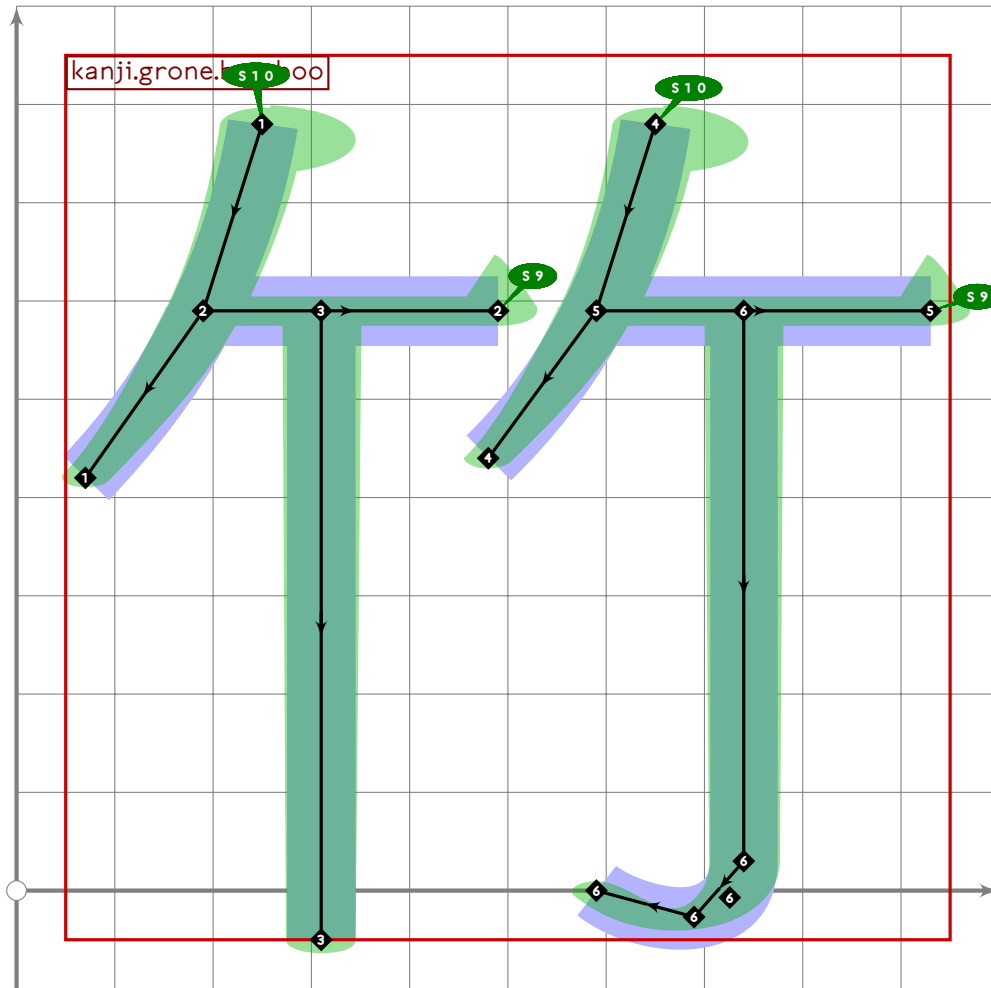
```



U+2F74  
tsuku.uni2F74



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

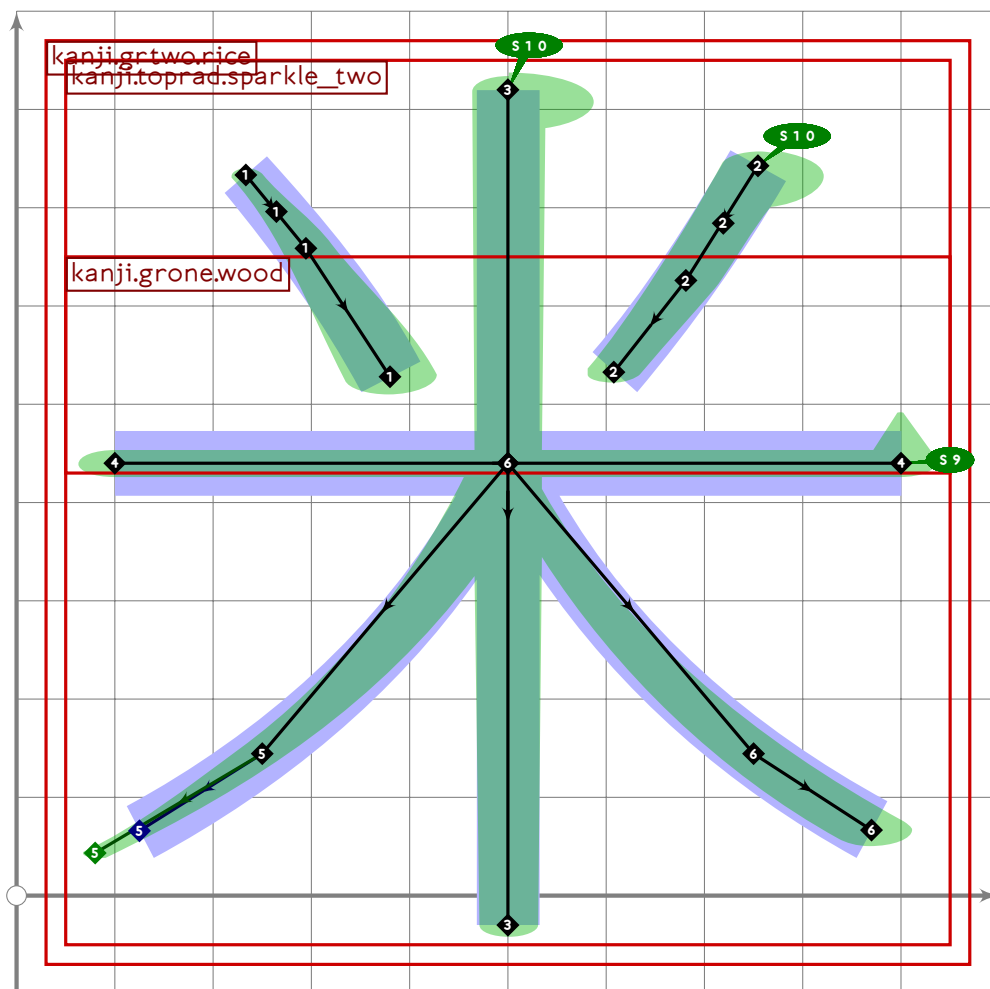


```

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

```

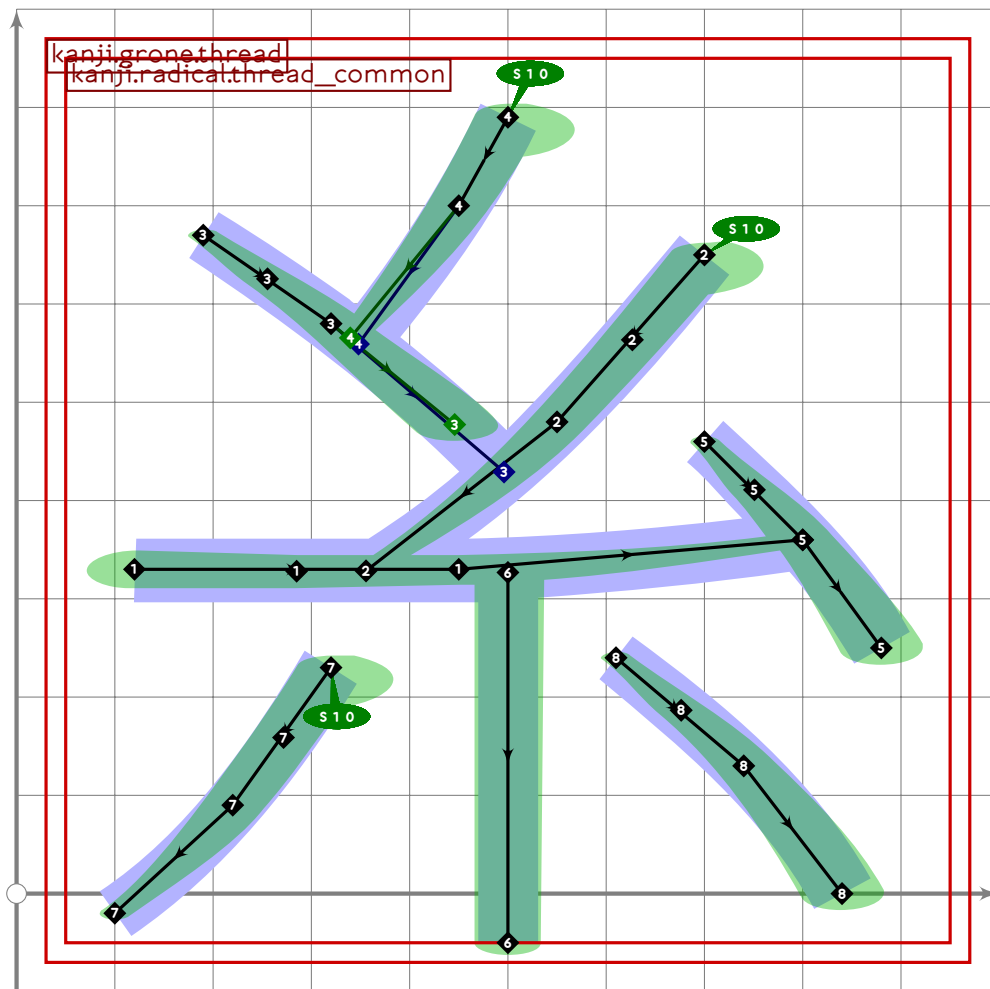
U+2F76  
tsuku.uni2F76



```

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

```

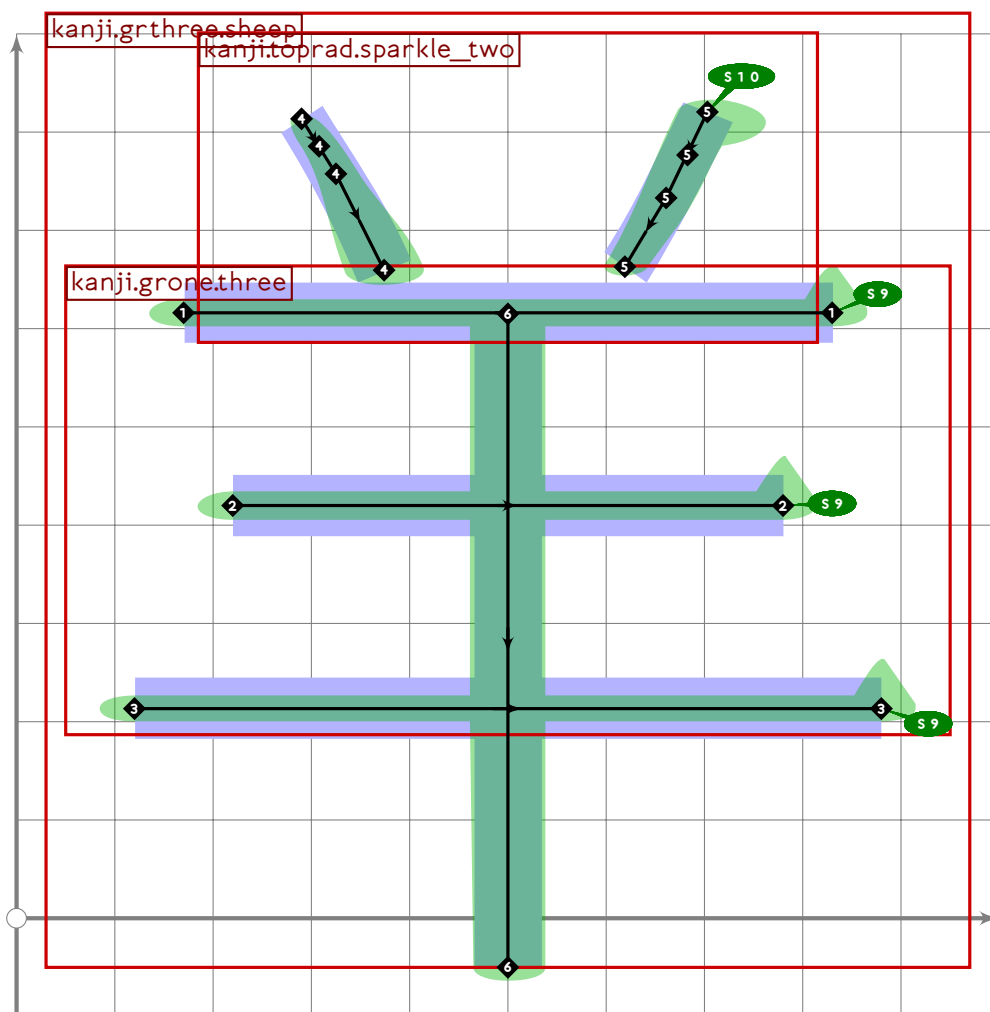


```

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

```

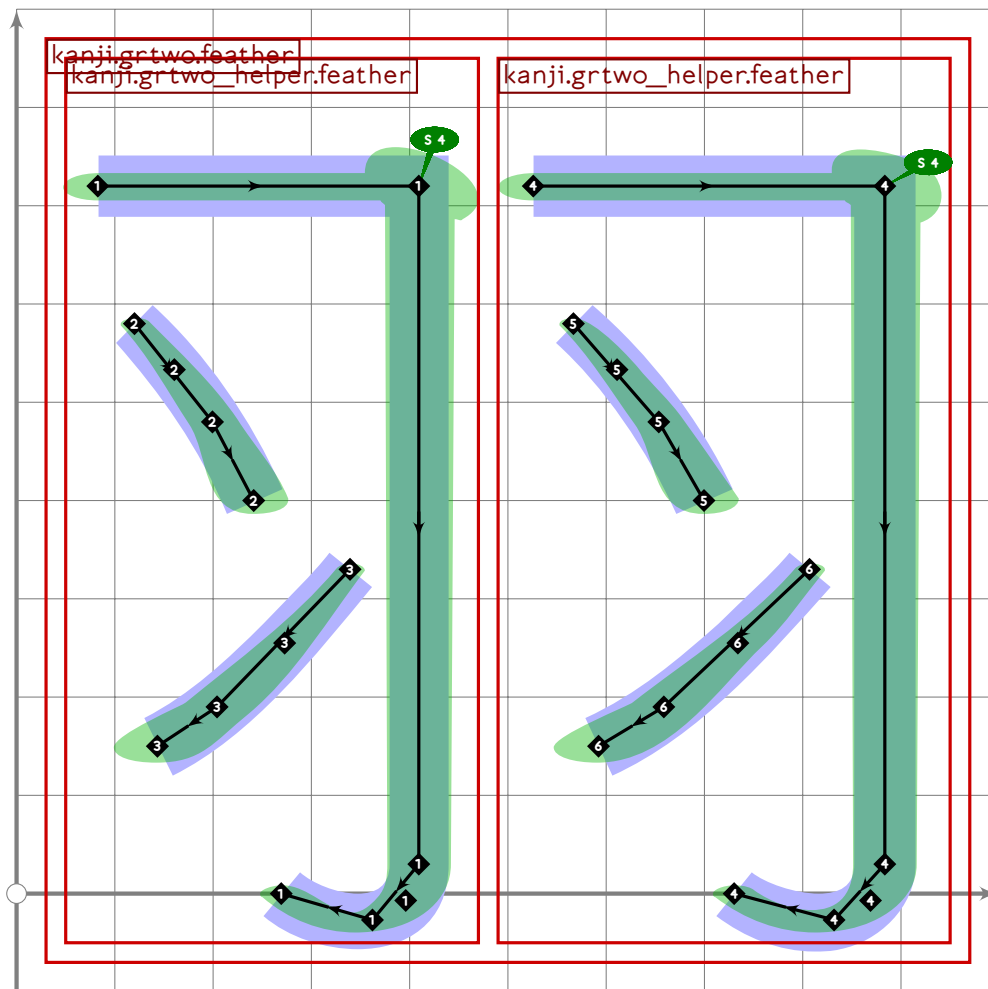
U+2F7A  
tsuku.uni2F7A



```

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

```

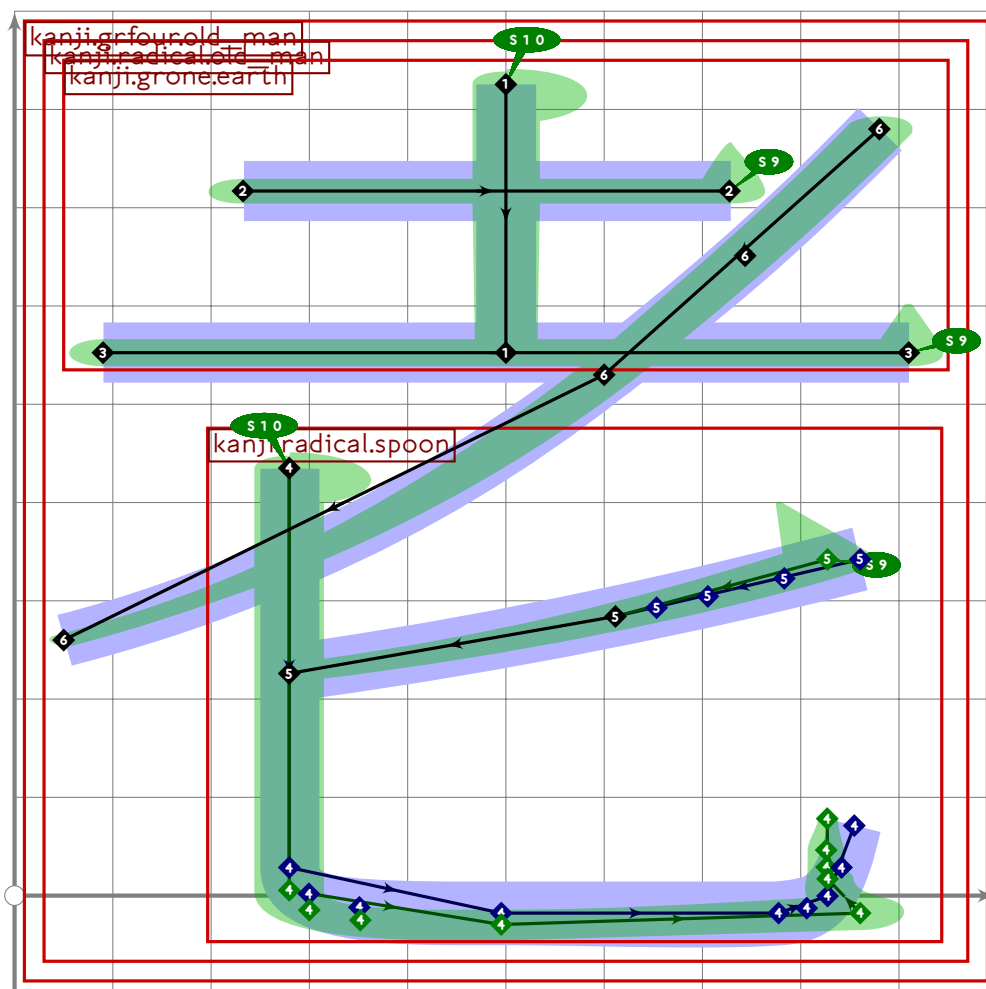


```

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

```

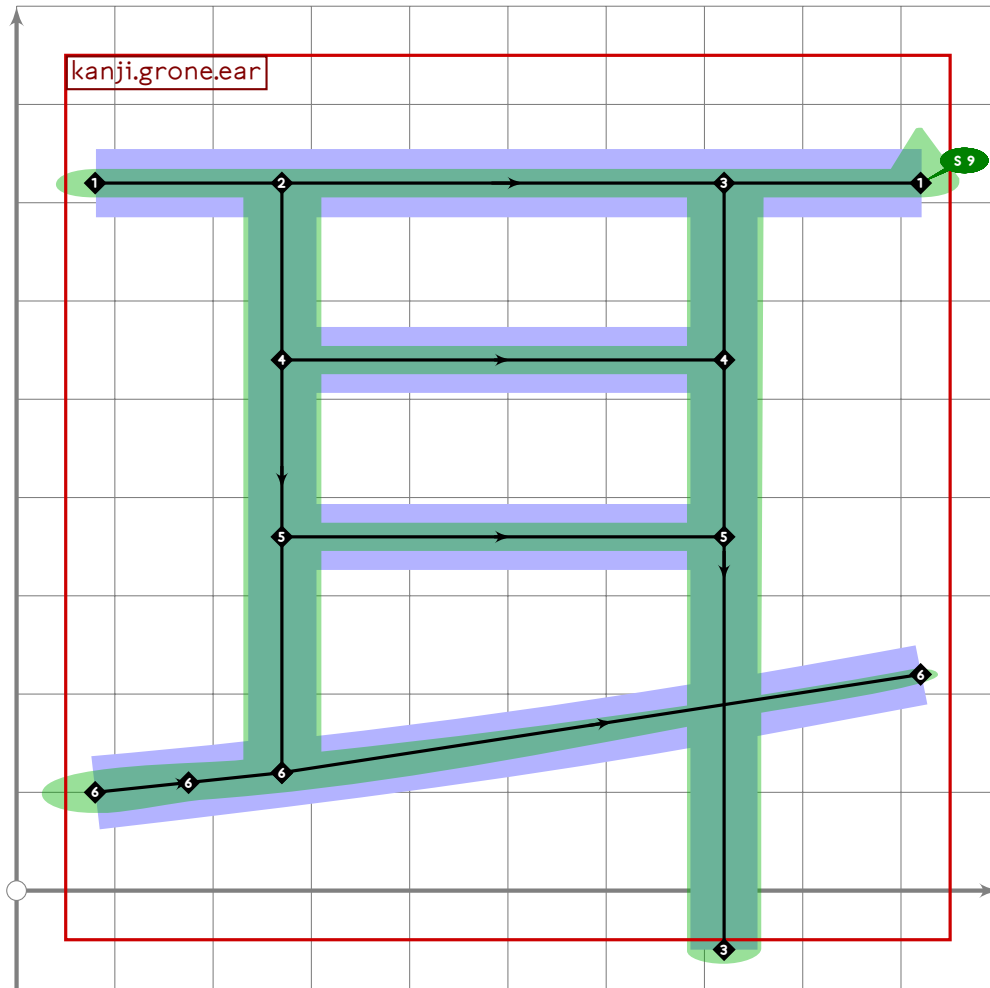
U+2F7C  
tsuku.uni2F7C



```

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

```



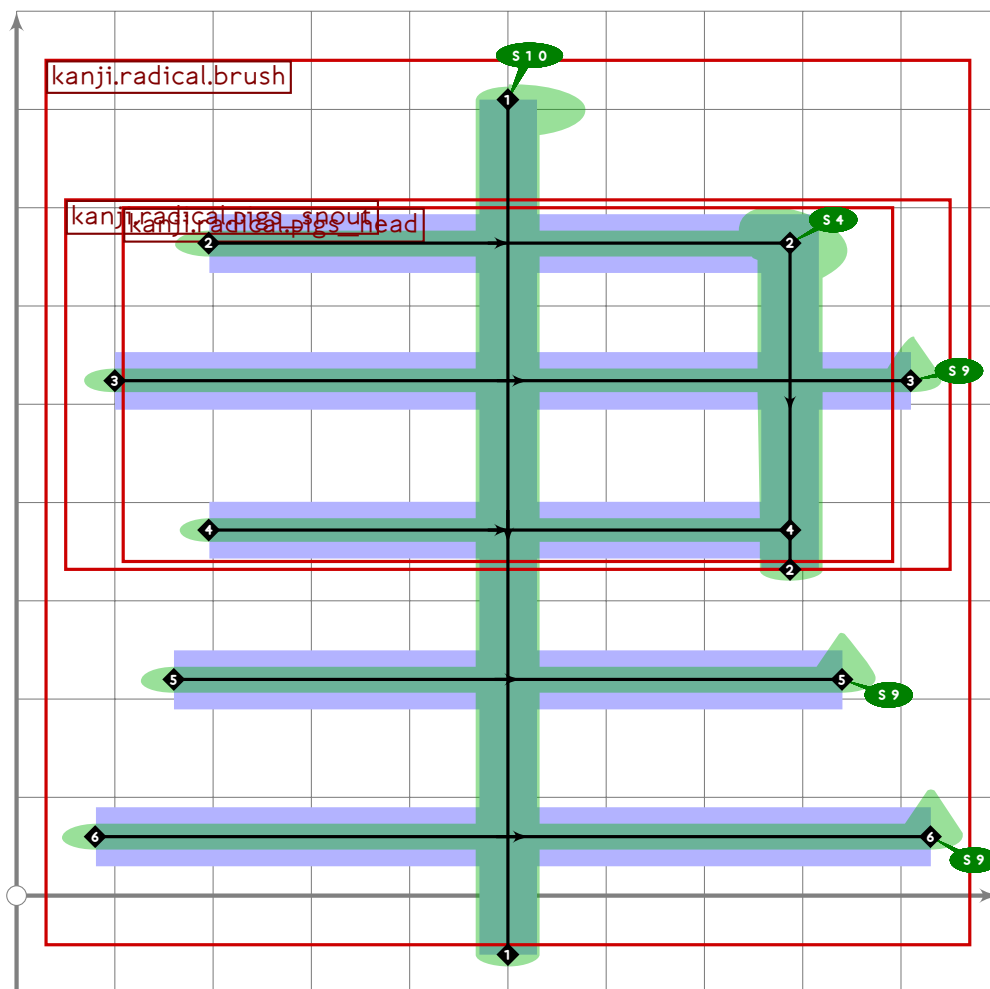
```

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

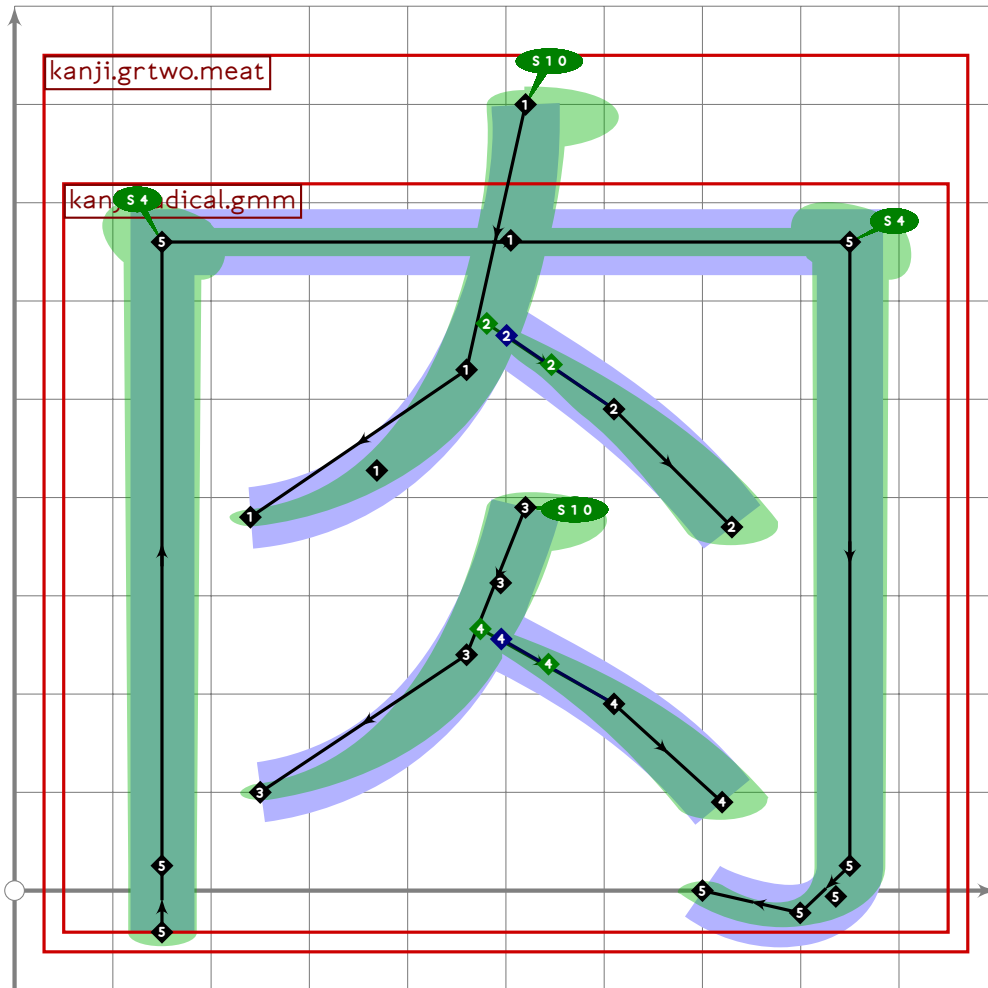
```



U+2F80  
tsuku.uni2F80

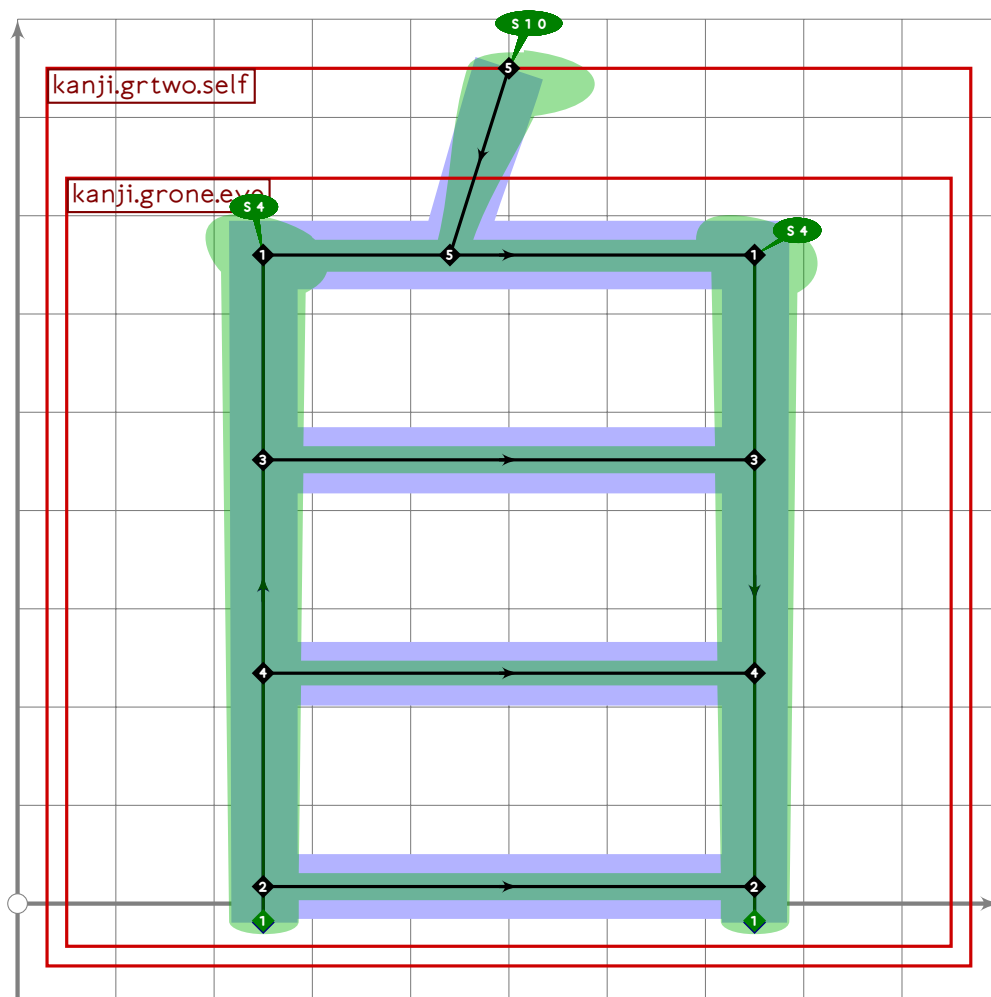


```
542 % brush radical
543 begintsuglyph("uni2F80",128);
544   kanji.radical.brush;
545   tsu_render;
546 endtsuglyph;
547
```

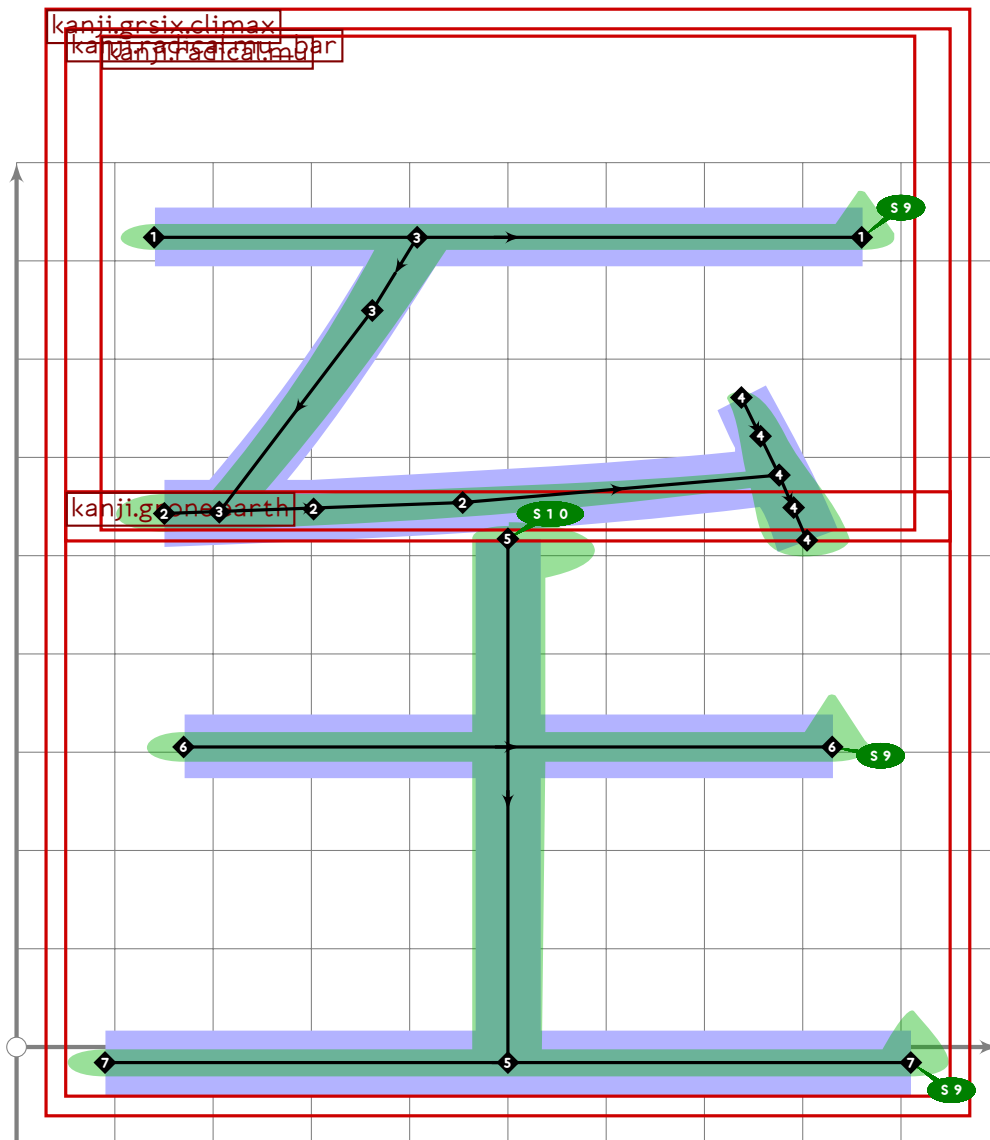


```
548 % niku "meat"
549 begintsuglyph("uni2F81",129);
550   kanji.grtwo.meat;
551   tsu_render;
552 endtsuglyph;
553
```

U+2F83  
tsuku.uni2F83



```
554 % ji as in jibun "self"  
555 begintsuglyph("uni2F83";131);  
556   kanji.grtwo.self;  
557   tsu_render;  
558 endsuglyph;  
559
```

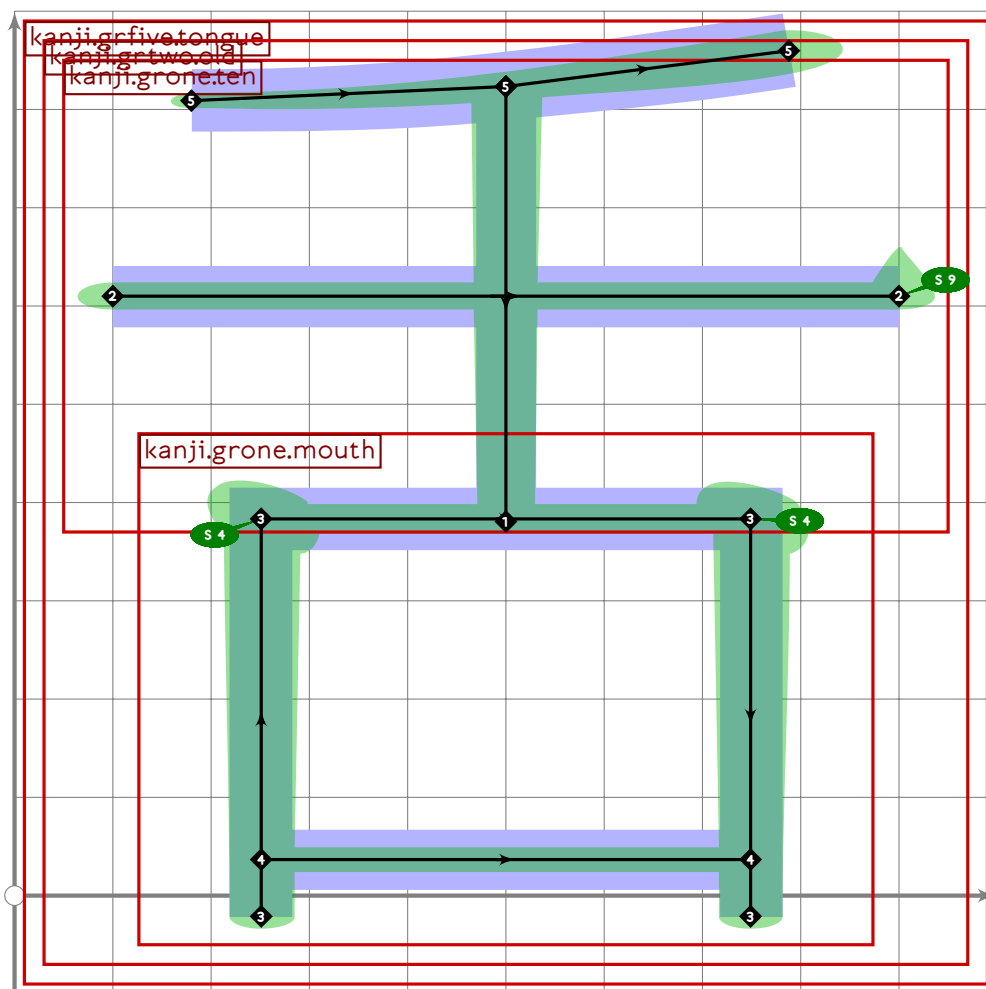


```

560 % shi/ita "climax"
561 begint Suglyph("uni2F84";132);
562   kanji.grsix.climax;
563   tsu_render;
564 endtsuglyph;
565

```

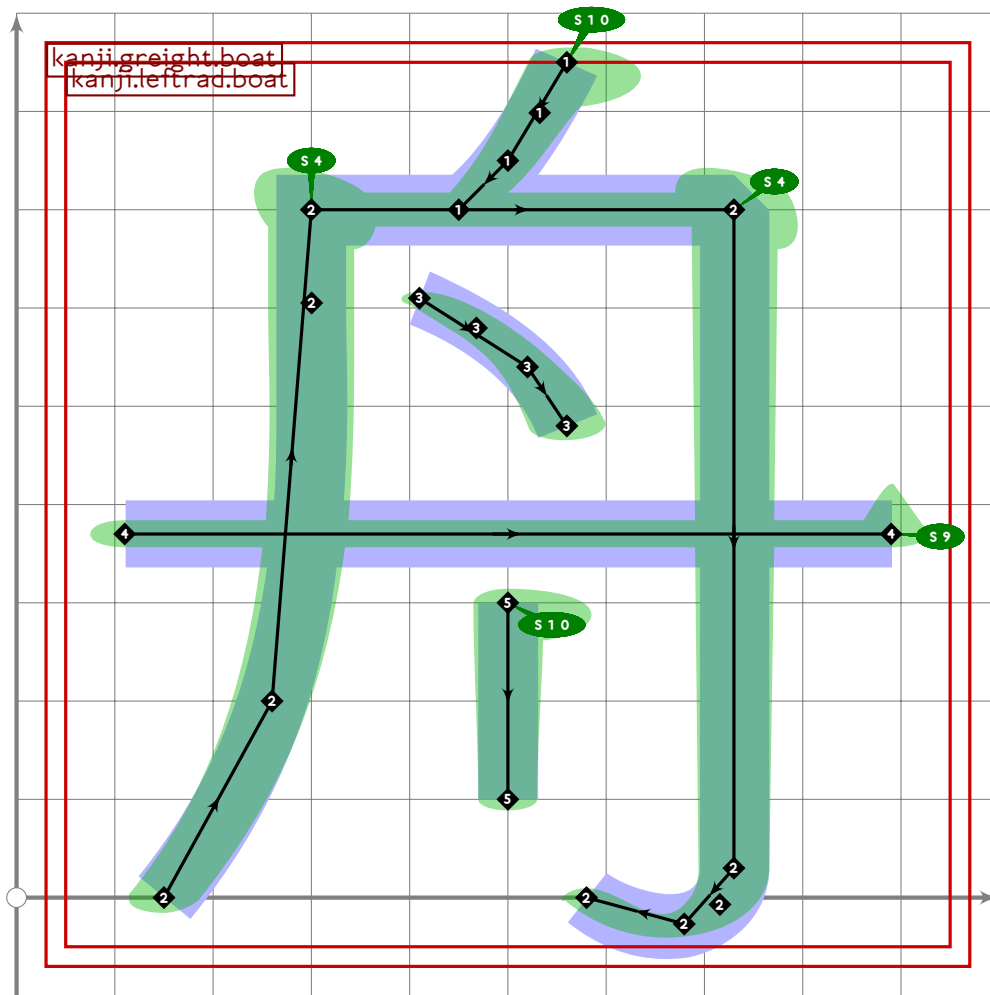
U+2F86  
tsuku.uni2F86



```

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

```

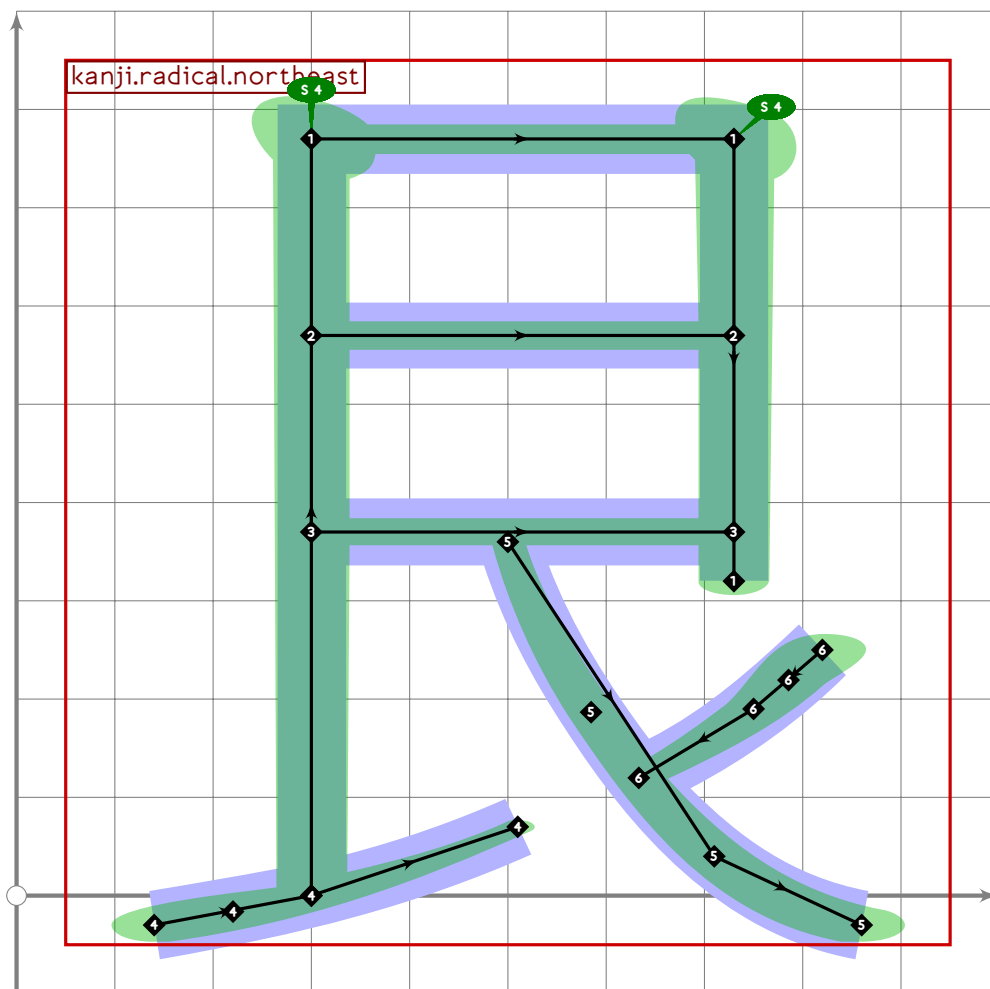


```

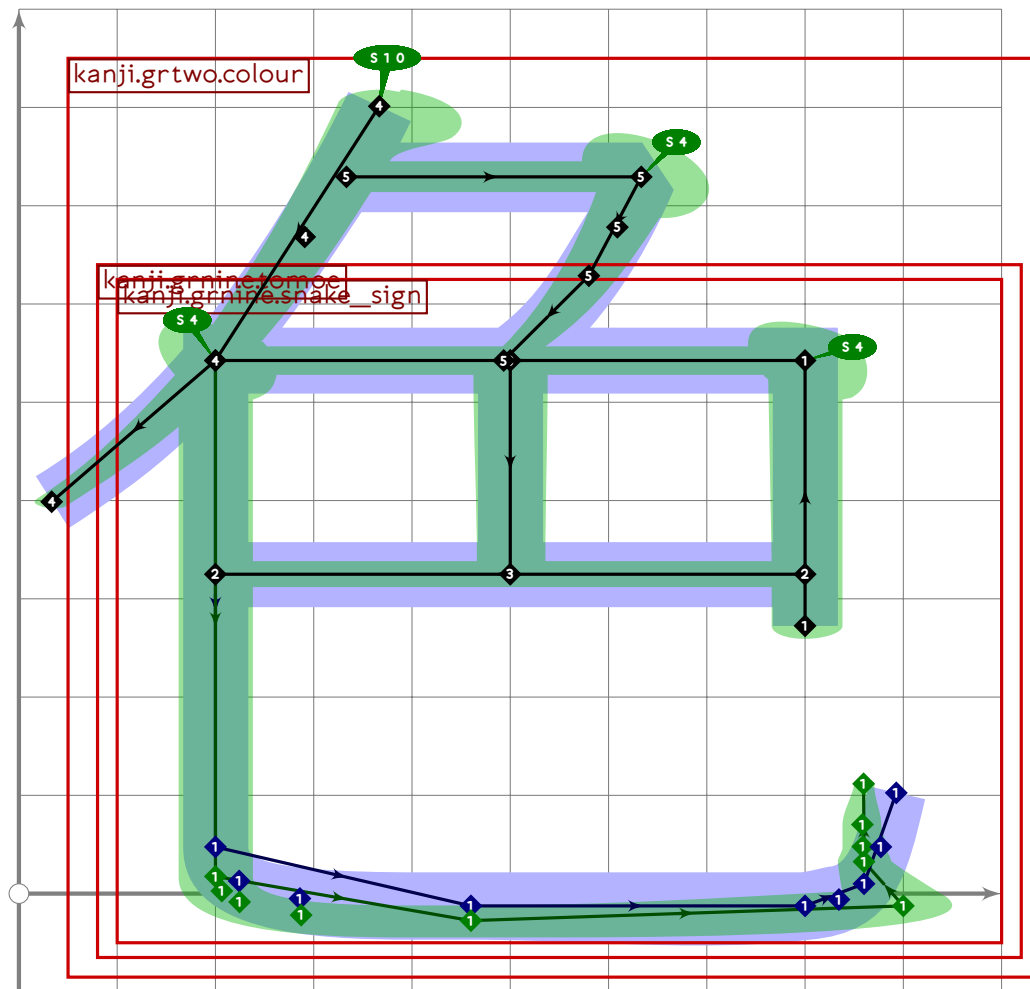
572 % shuu/fune "boat"
573 beginsuglyph("uni2F88",136);
574   kanji.greight.boat;
575   tsu_render;
576 endsuglyph;
577

```

U+2F89  
tsuku.uni2F89



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



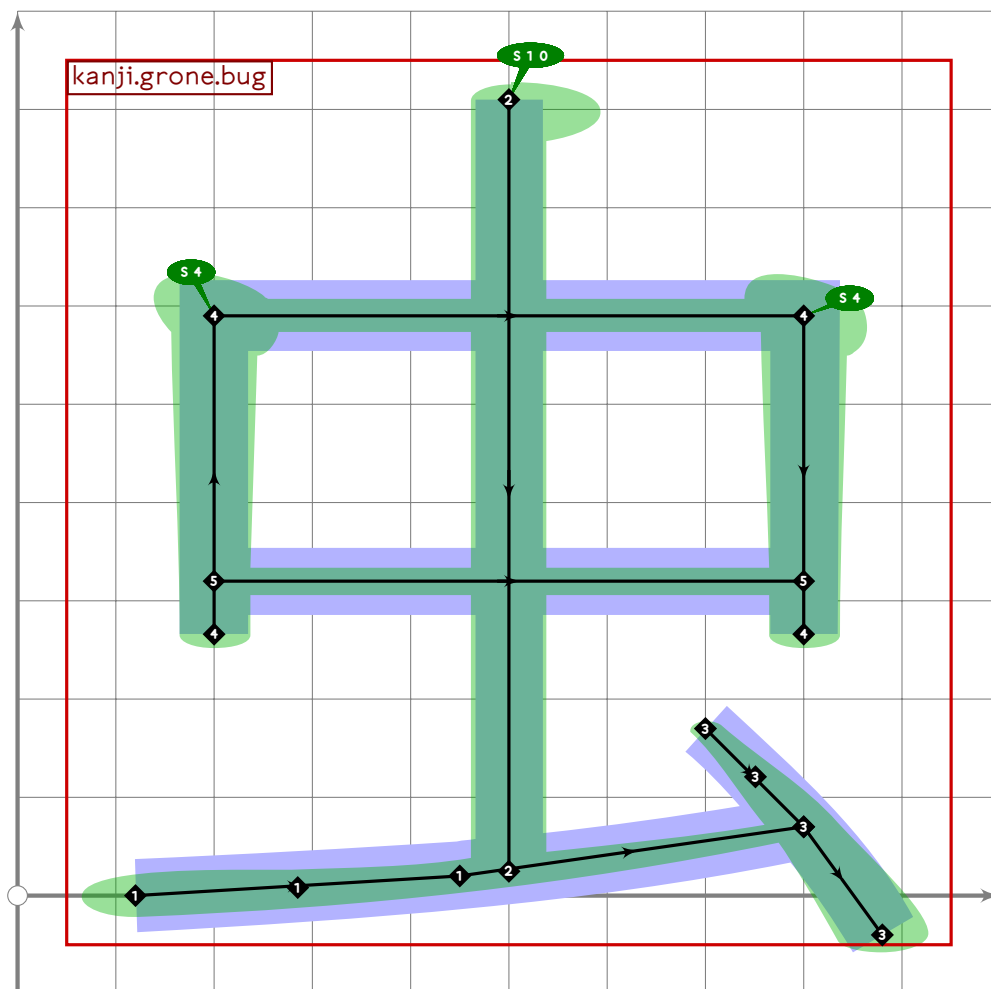
```

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

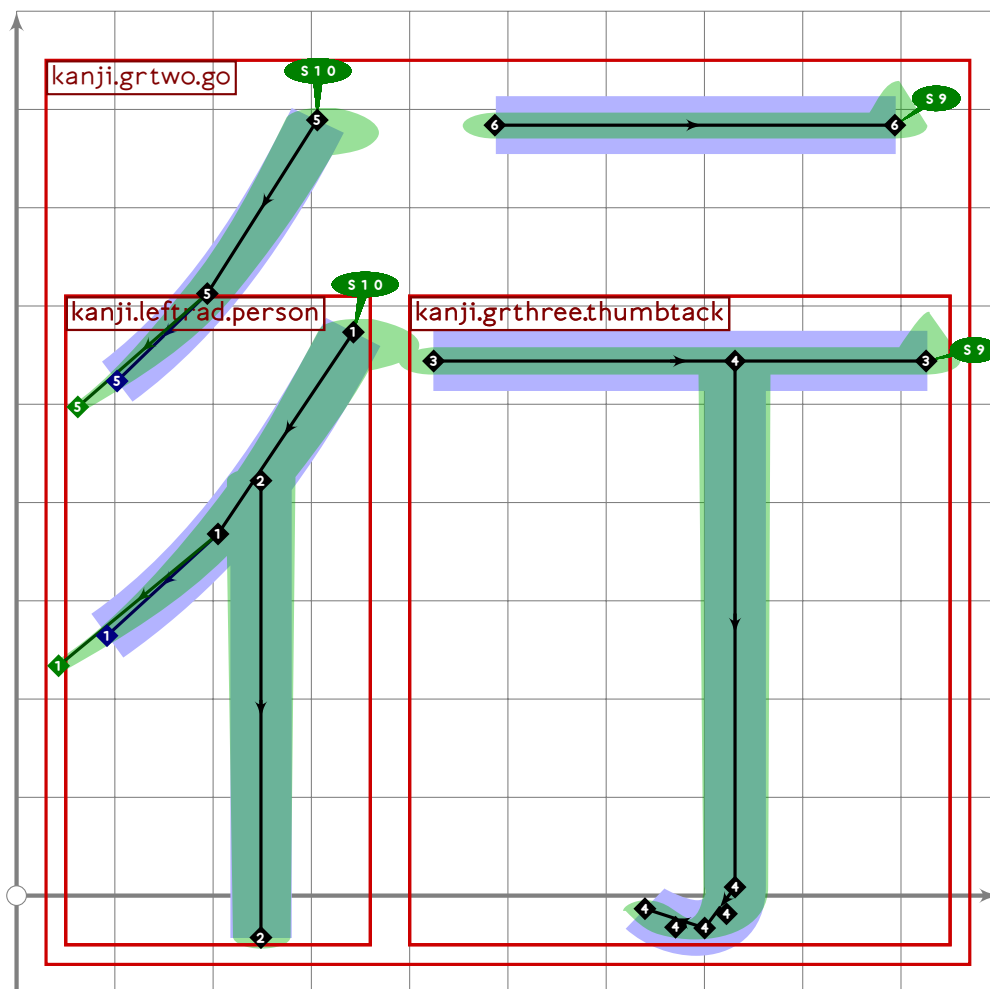
```



U+2F8D  
tsuku.uni2F8D



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

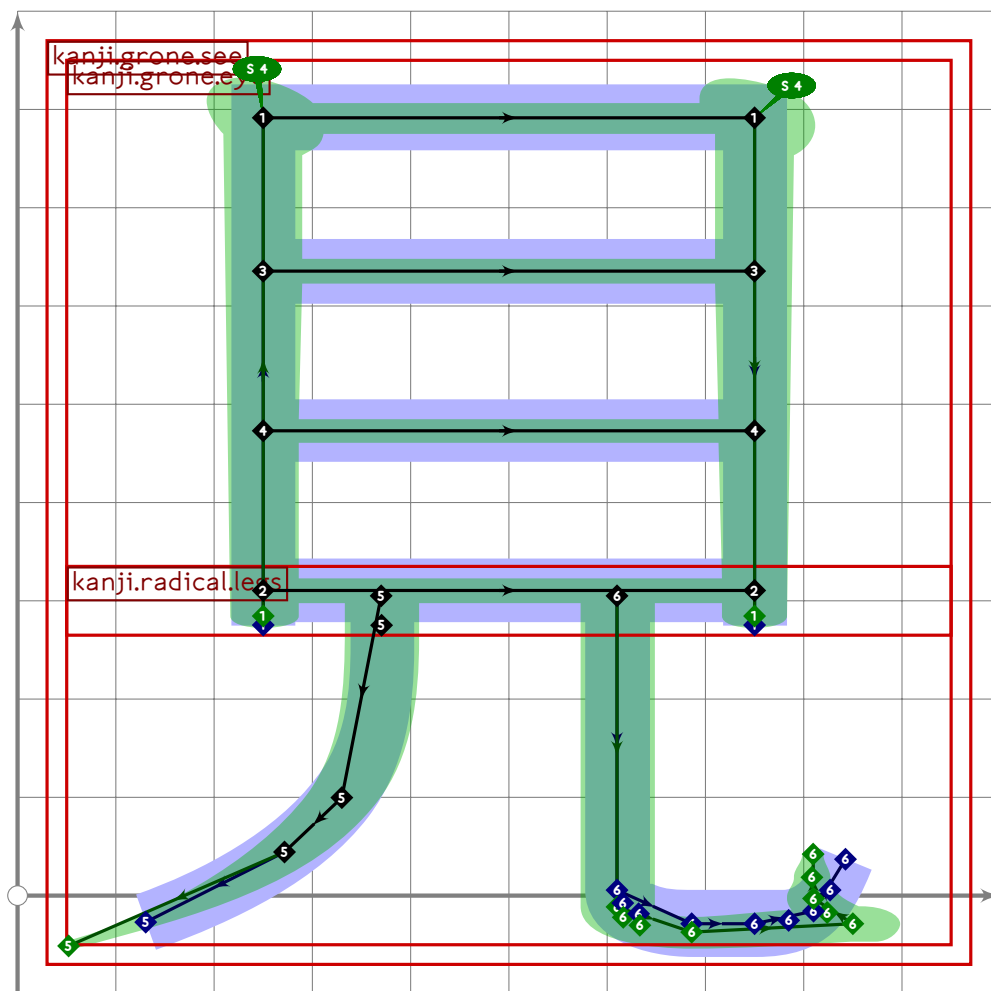


```

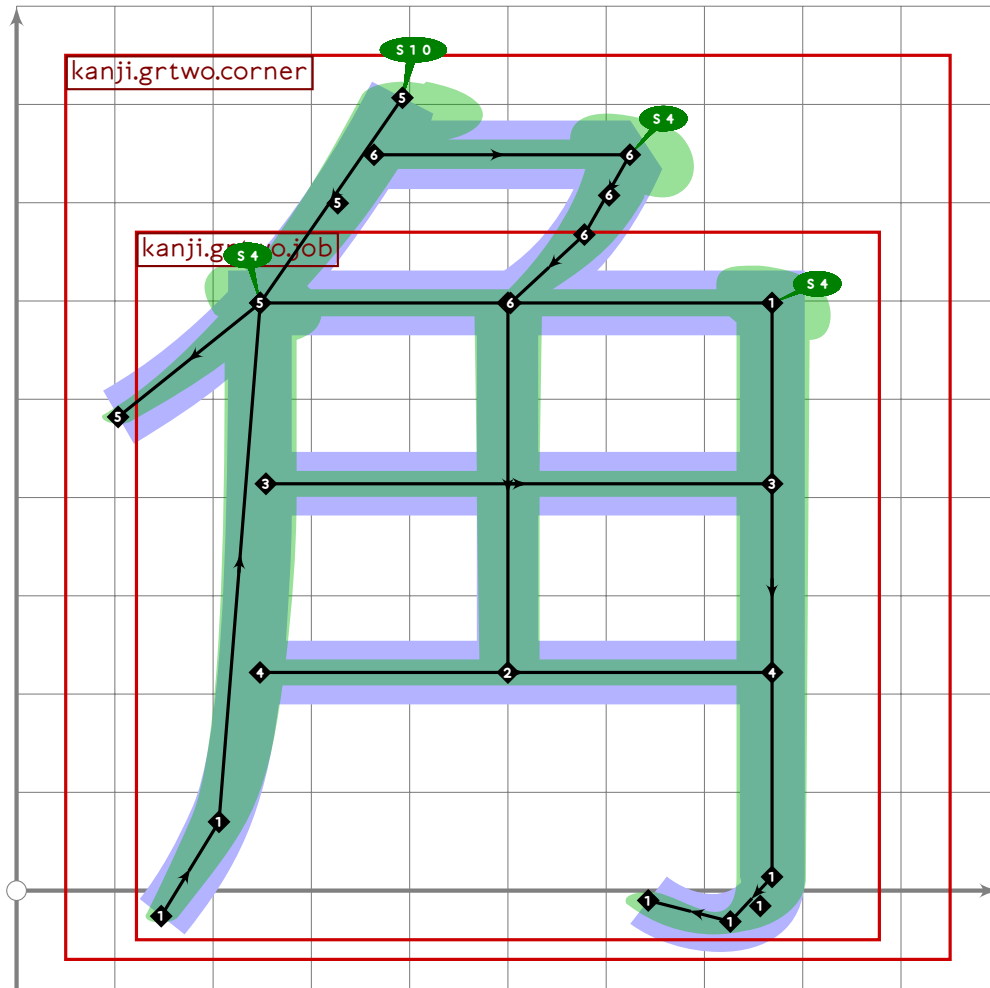
596 % kou/i(ku) "go"
597 begintsuglyph("uni2F8F",143);
598   kanji.grtwo.go;
599   tsu_render;
600 endtsuglyph;
601

```

U+2F92  
tsuku.uni2F92



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

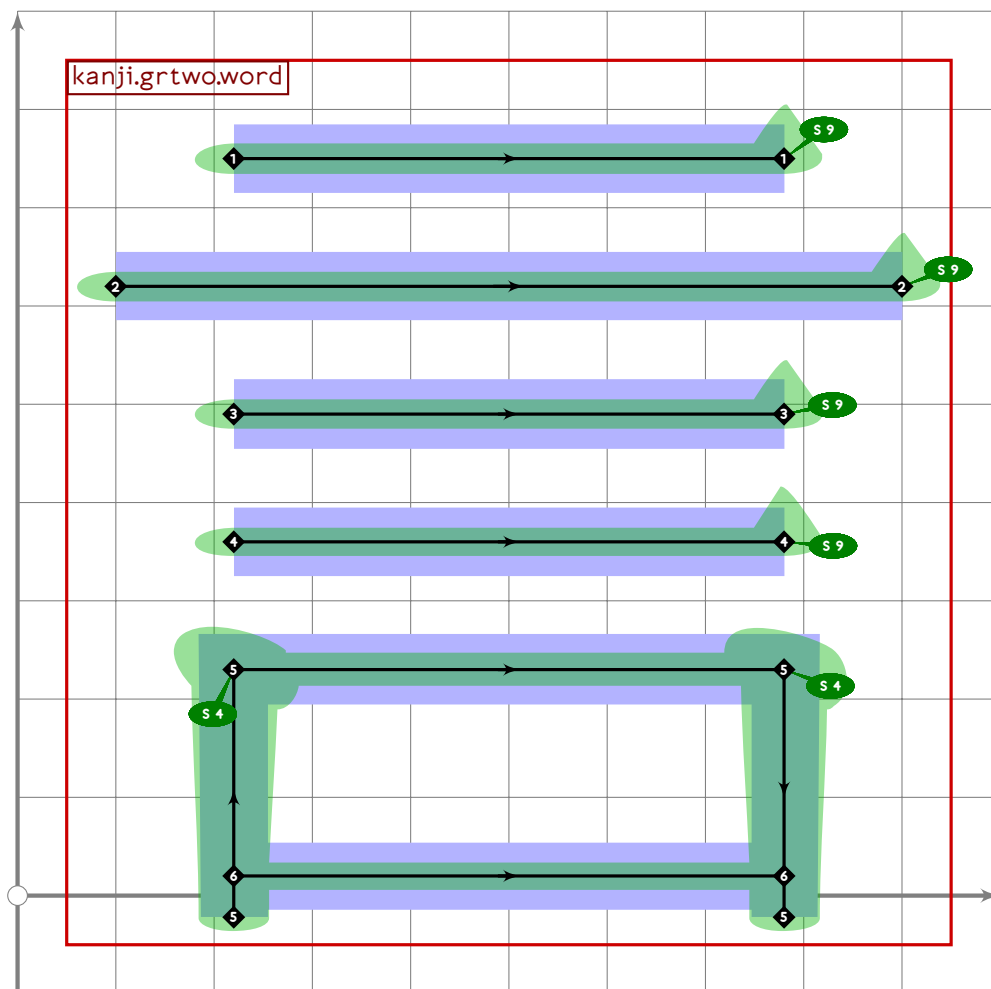


```

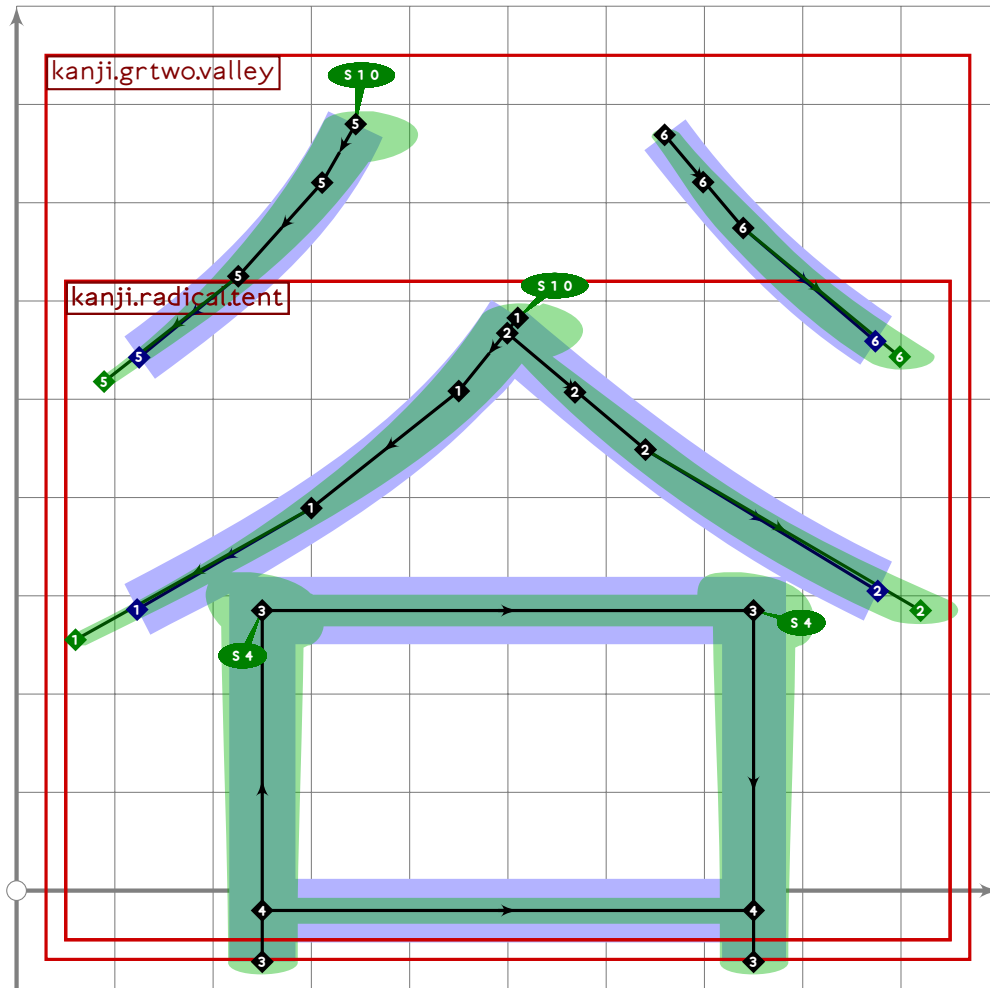
608 % kaku/kado "corner"
609 begint Suglyph("uni2F93";147);
610   kanji.grtwo.corner;
611   tsu_render;
612 endtsuglyph;
613

```

U+2F94  
tsuku.uni2F94



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

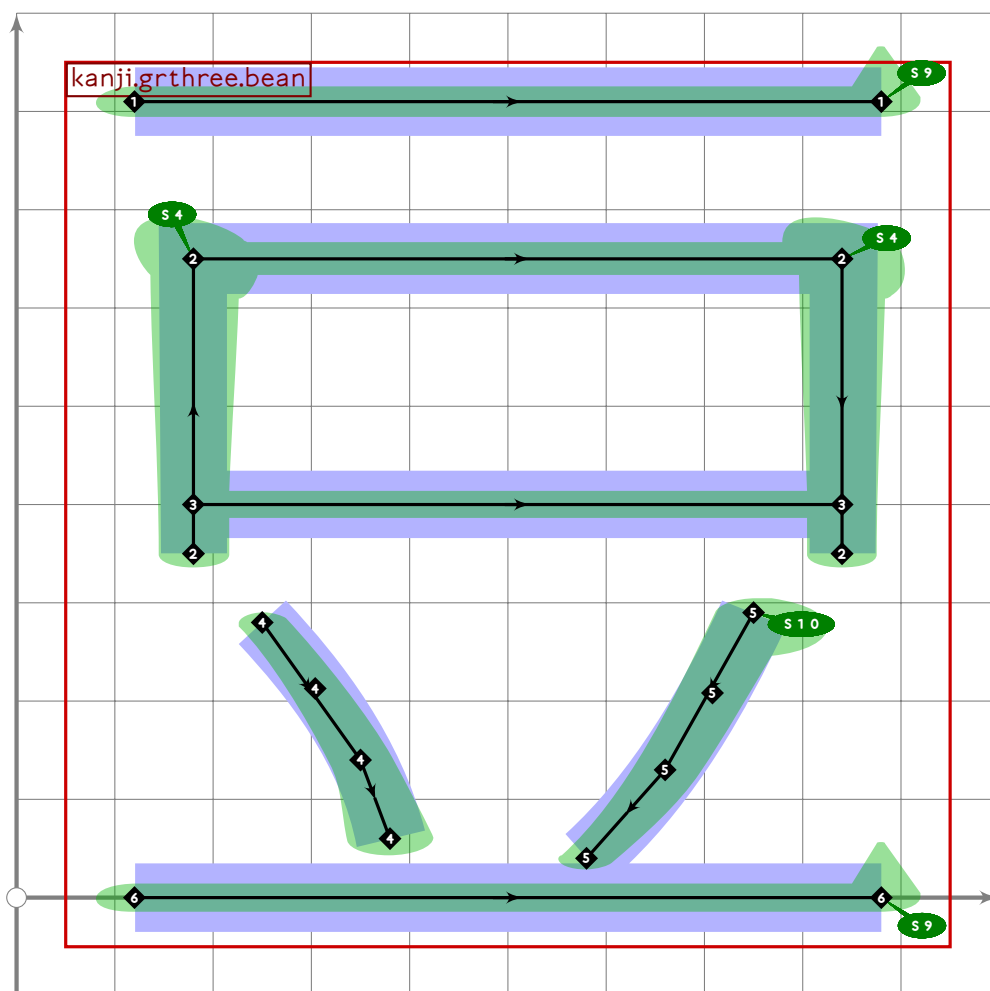


```

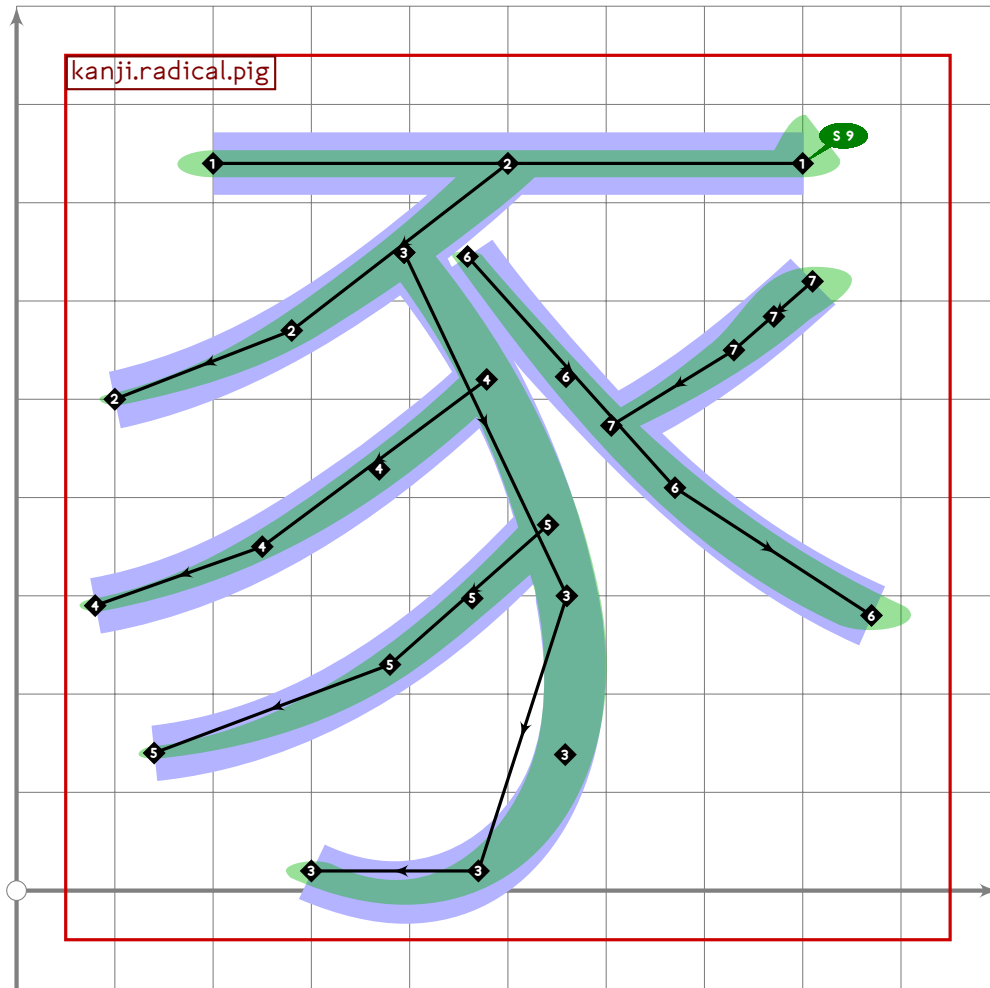
620 % koku/tani "valley"
621 begintsuglyph("uni2F95";149);
622   kanji.grtwo.valley;
623   tsu_render;
624 endtsuglyph;
625

```

U+2F96  
tsuku.uni2F96



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



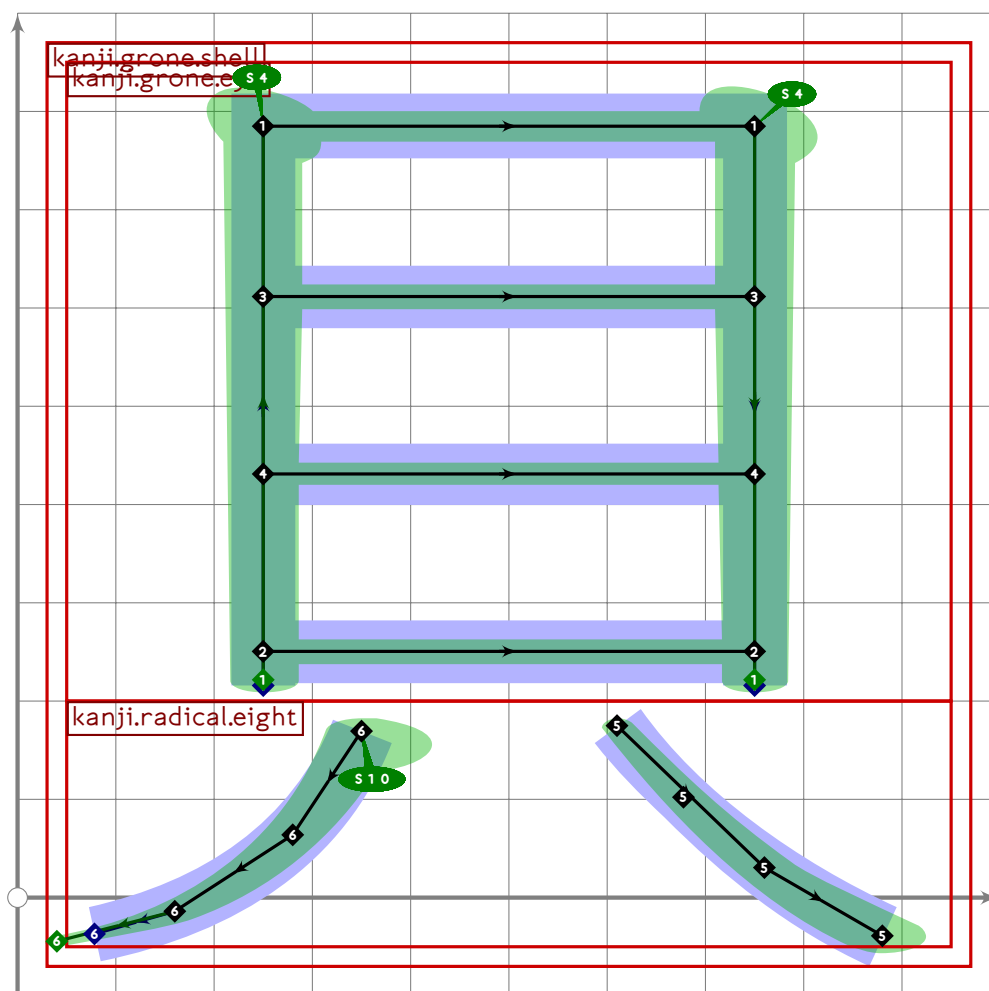
```

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

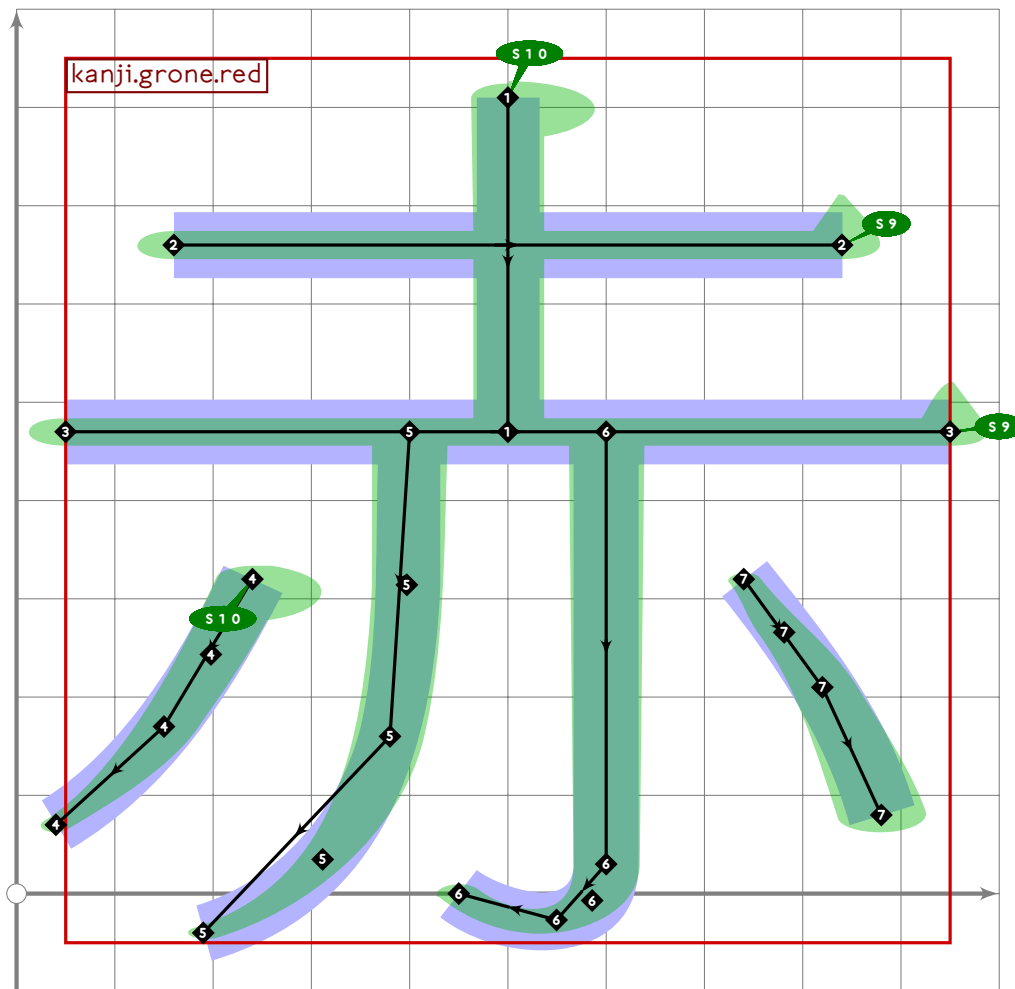
```



U+2F99  
tsuku.uni2F99



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

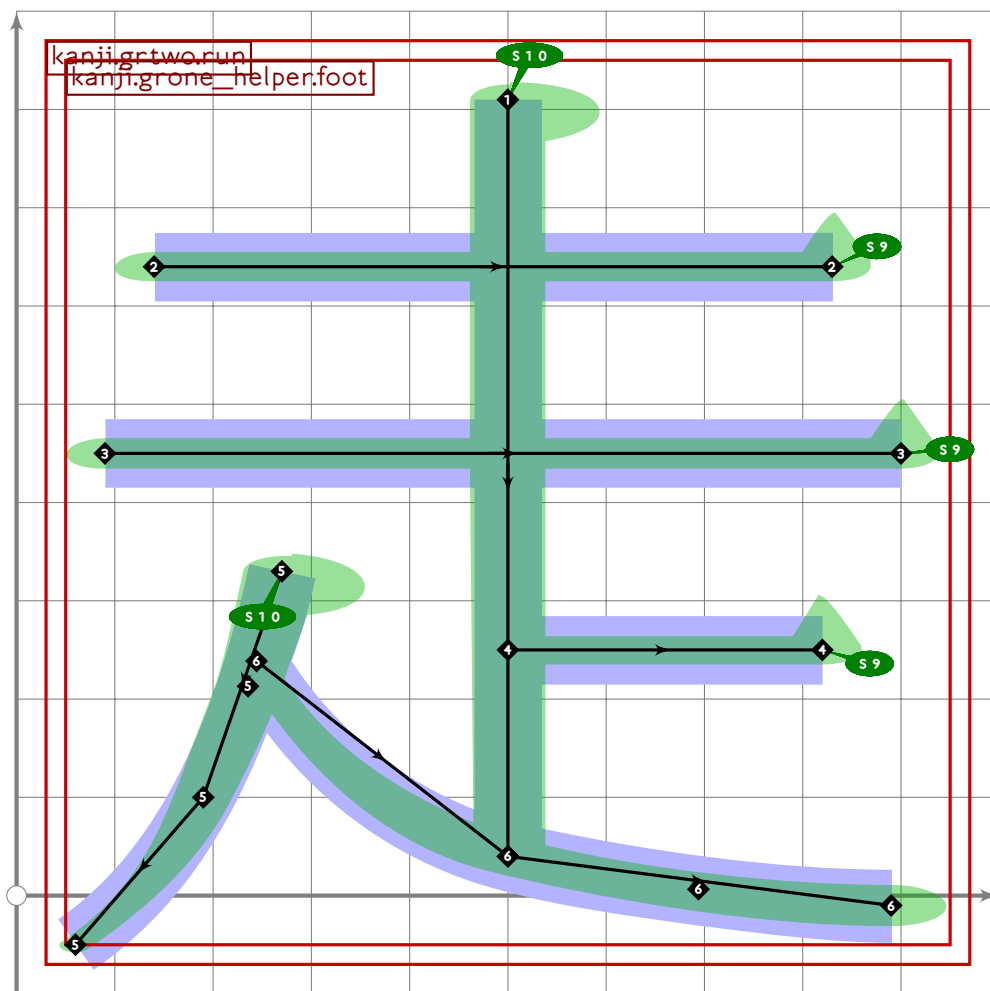


```

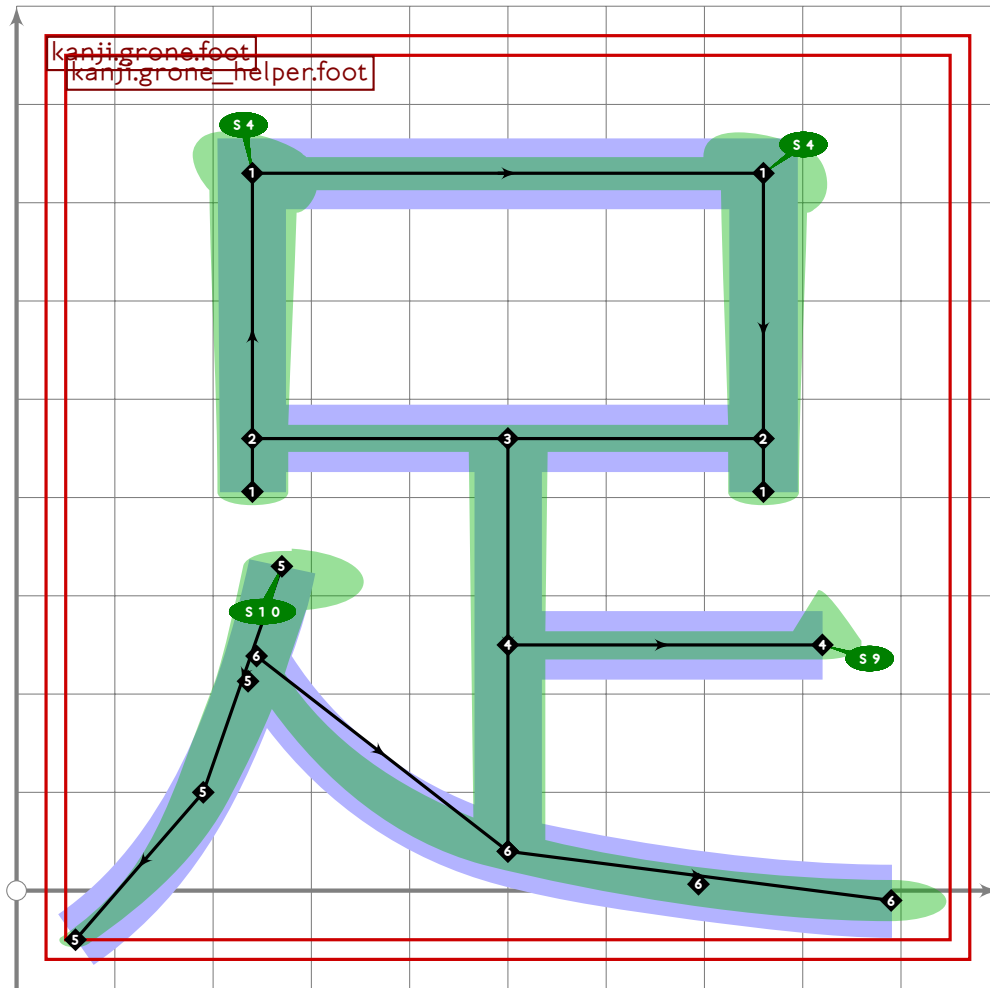
644 % aka/seki "red"
645 begintsuglyph("uni2F9A",154);
646   kanji.grone.red;
647   tsu_render;
648 endtsuglyph;
649

```

U+2F9B  
tsuku.uni2F9B



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

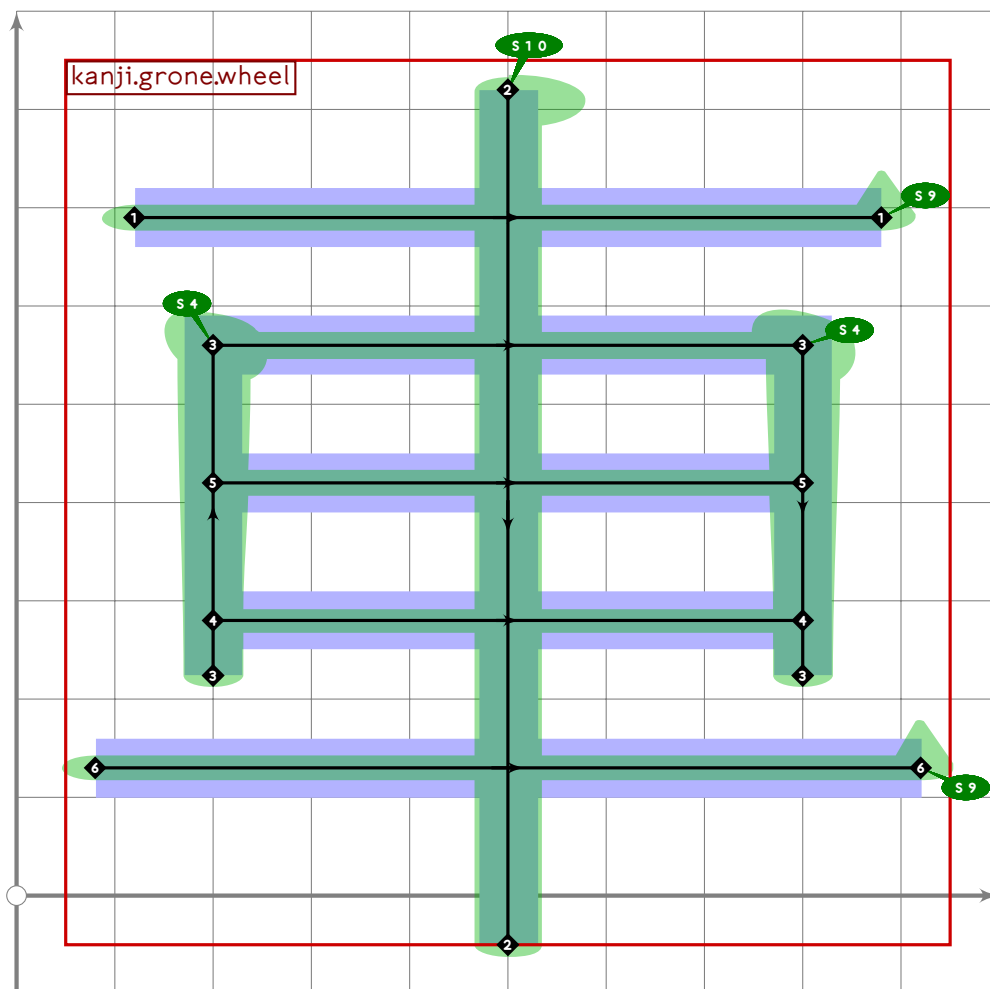


```

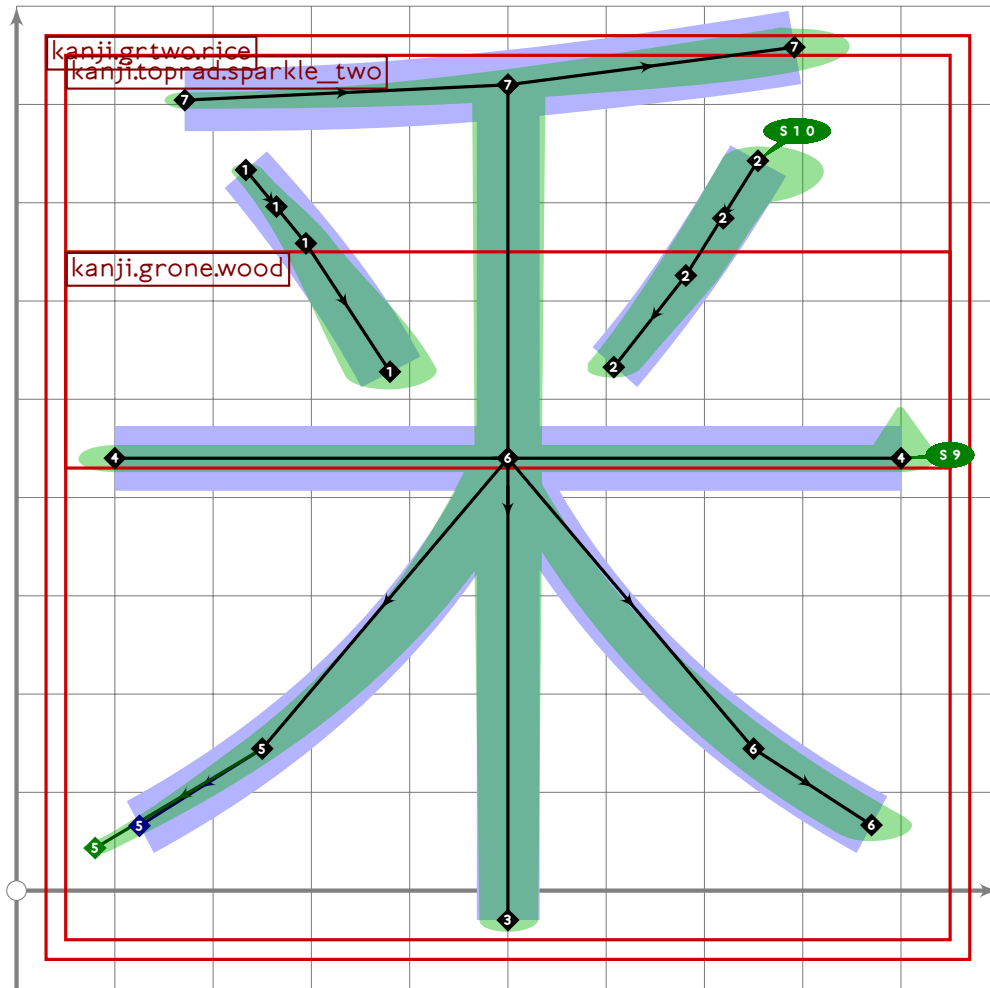
656 % ashi/soku "foot"
657 begintsuglyph("uni2F9C";156);
658   kanji.grone.foot;
659   tsu_render;
660 endtsuglyph;
661

```

U+2F9E  
tsuku.uni2F9E



```
662 % kuruma "car/wheel"  
663 begintsuglyph("uni2F9E",158);  
664   kanji.grone.wheel;  
665   tsu_render;  
666 endtsuglyph;  
667
```

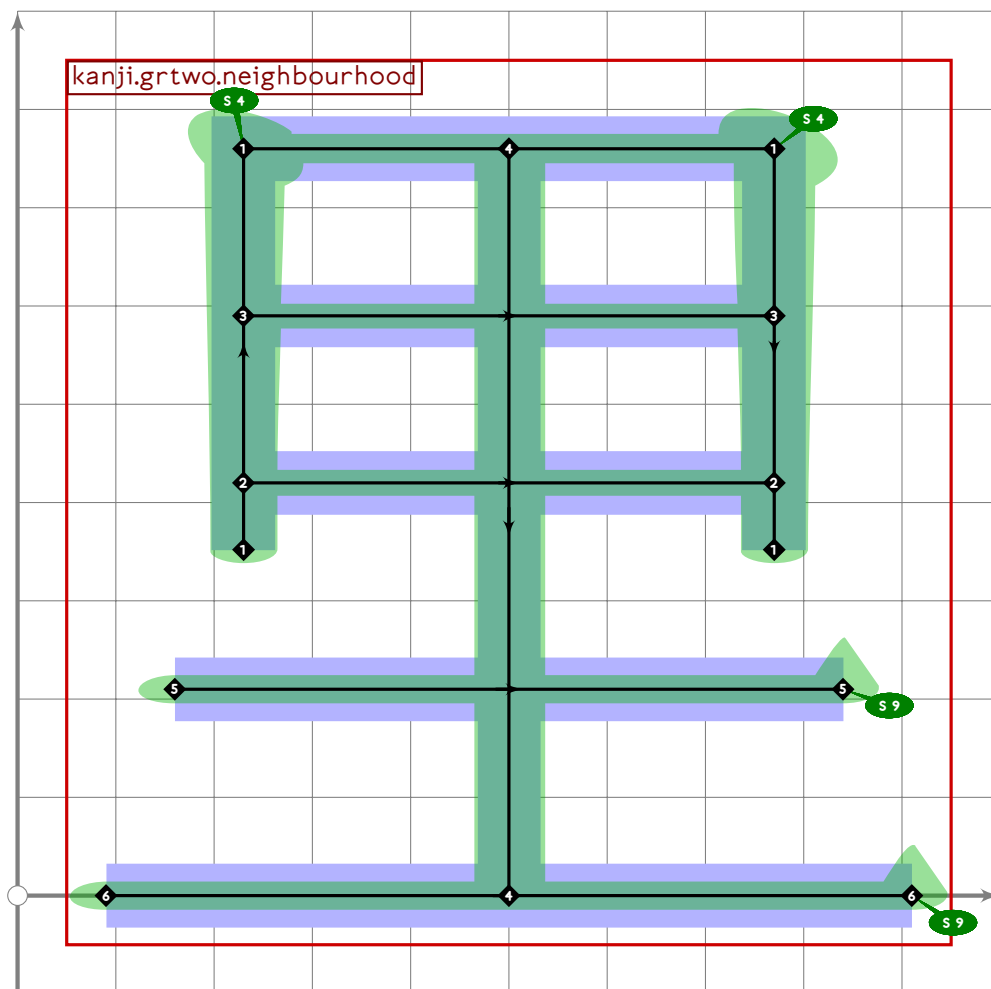


```

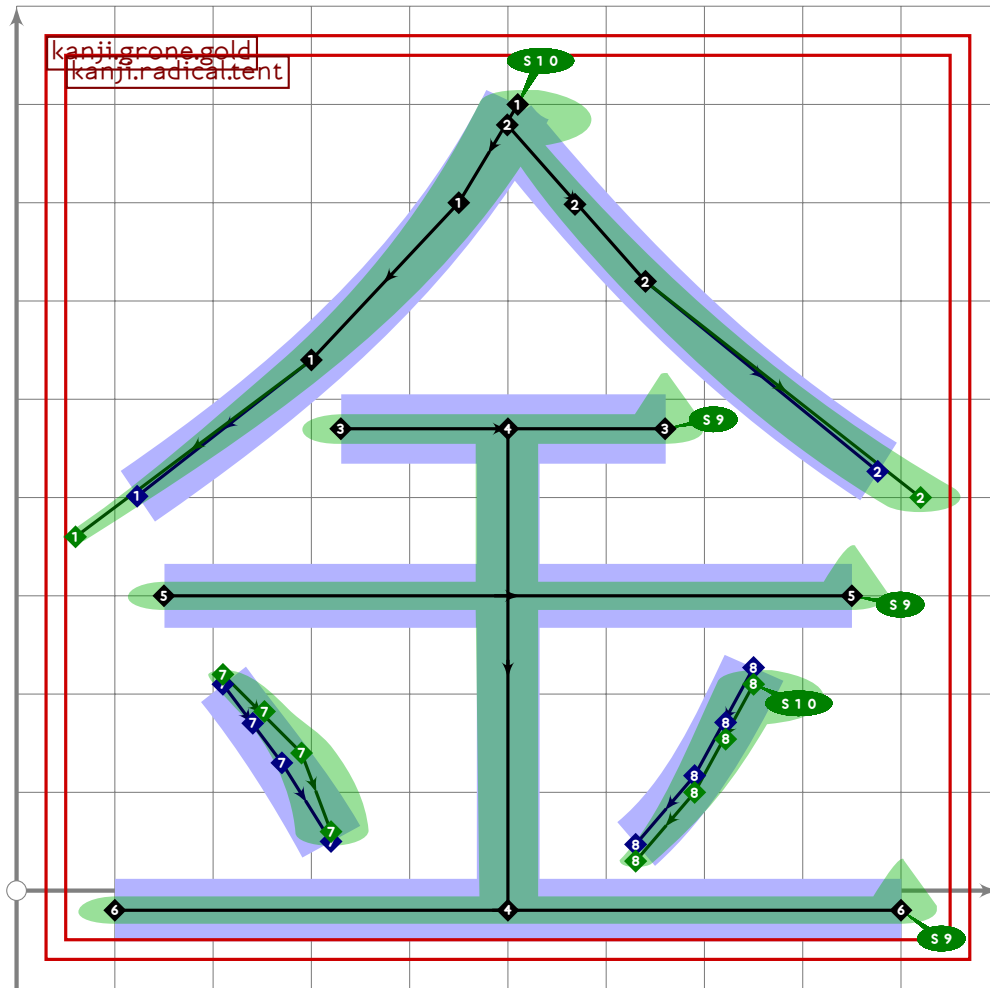
668 % han/irodori "separate" or "divide" but mostly "topped rice radical"
669 begintsuglyph("uni2FA4",164);
670   build_kanji.add_beret(kanji.grtwo.rice);
671   tsu_render;
672 endsuglyph;
673

```

U+2FA5  
tsuku.uni2FA5



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



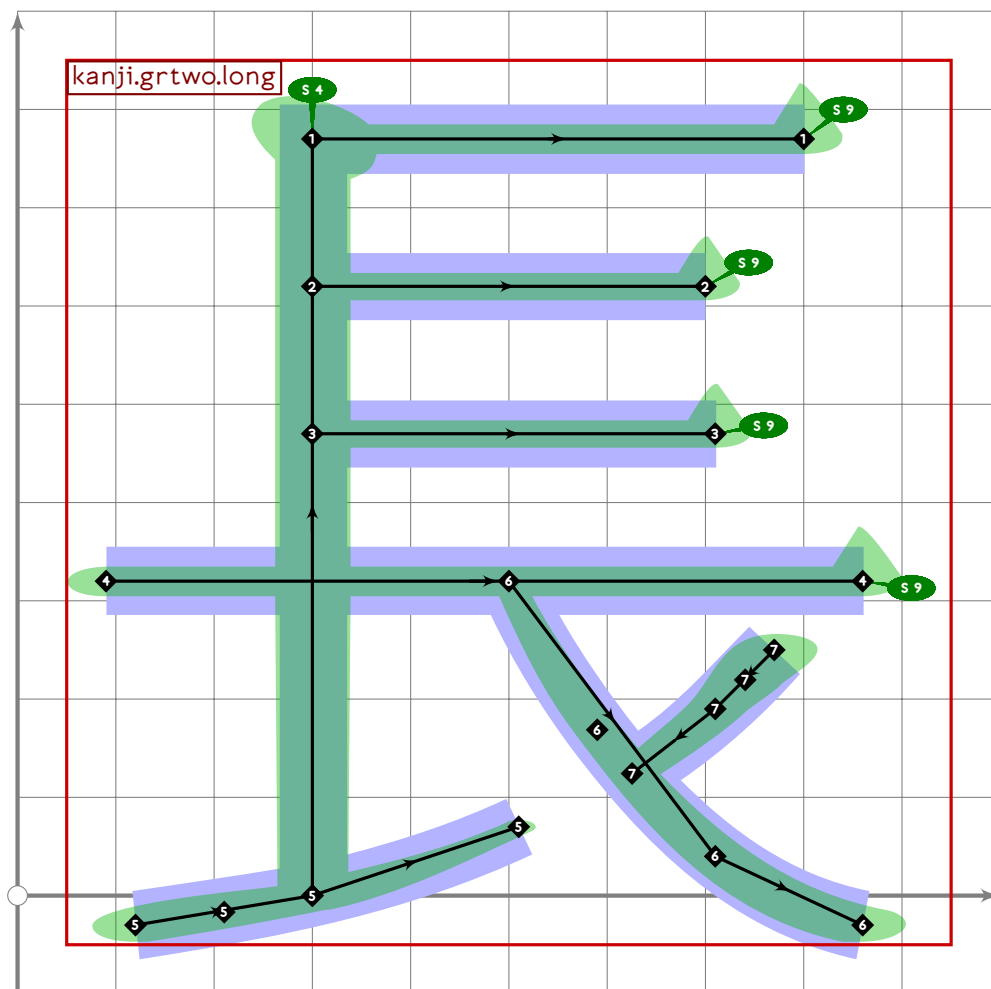
```

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

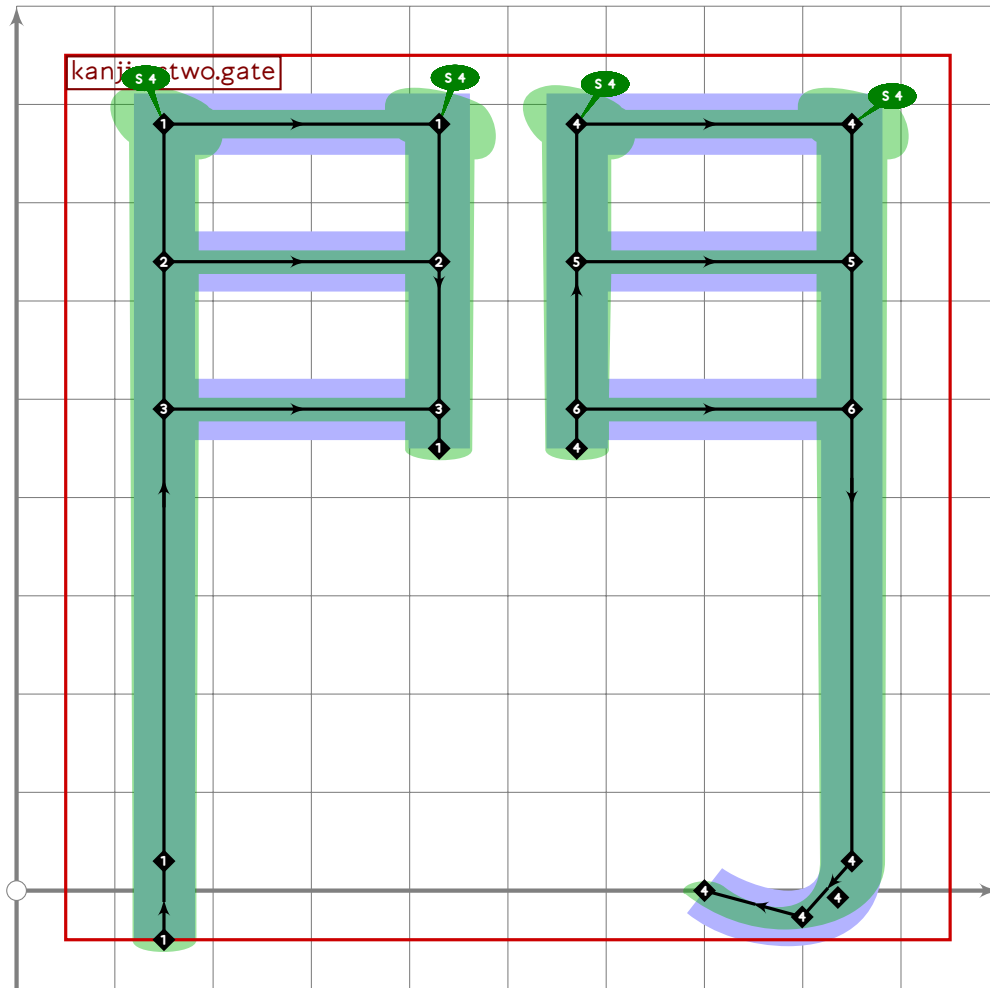
```



U+2FA7  
tsuku.uni2FA7



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

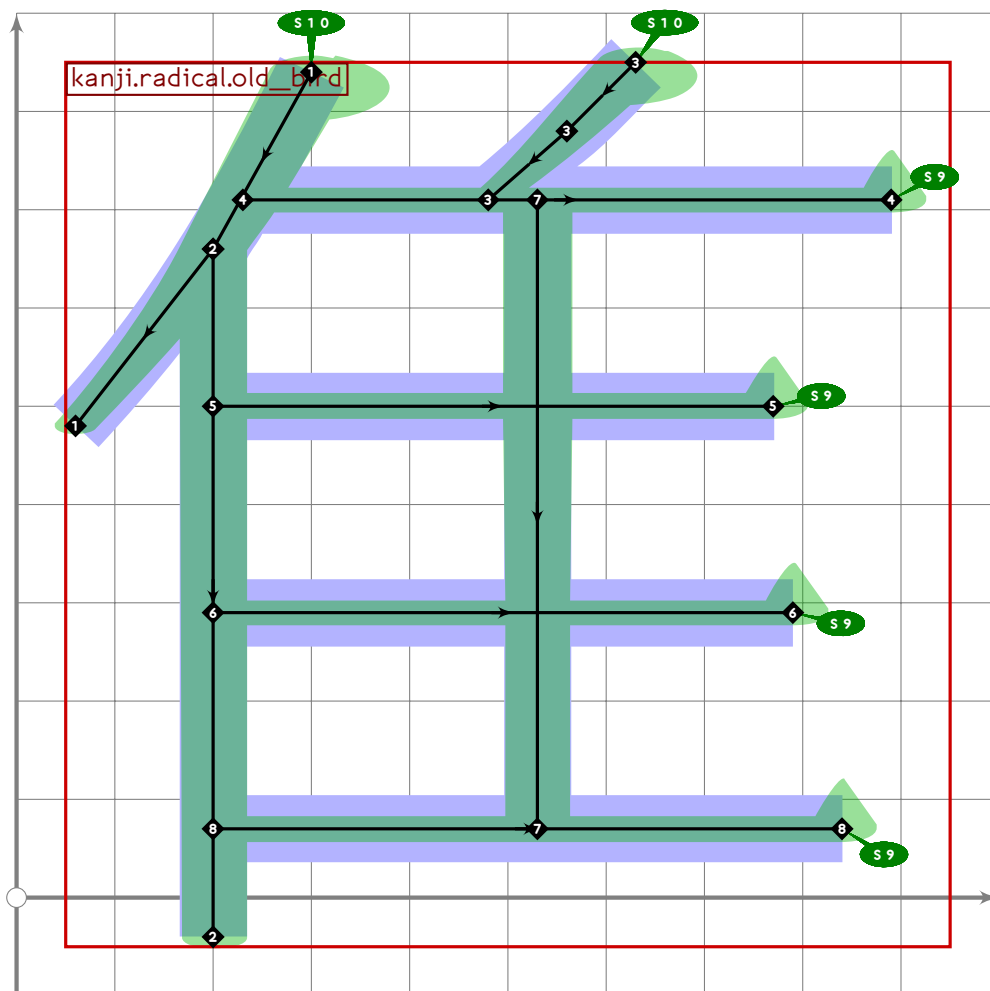


```

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

```

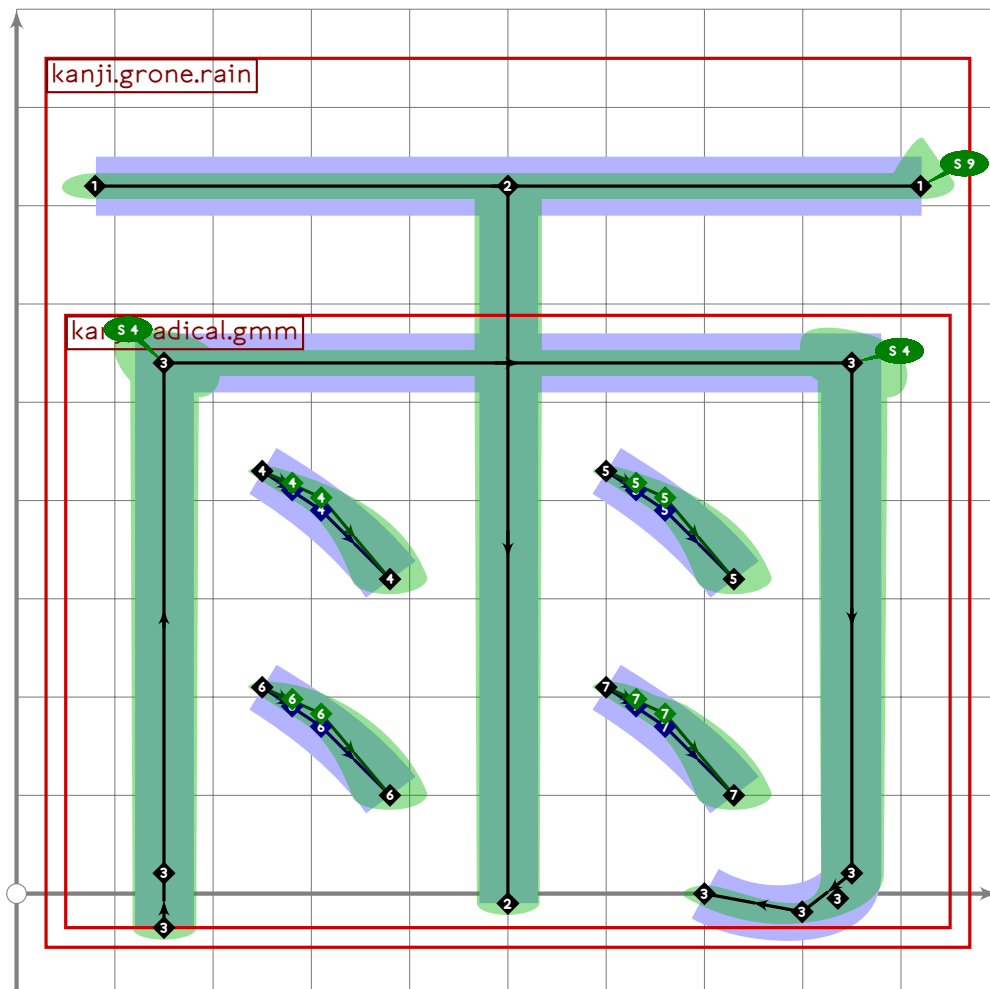
U+2FAB  
tsuku.uni2FAB



```

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

```

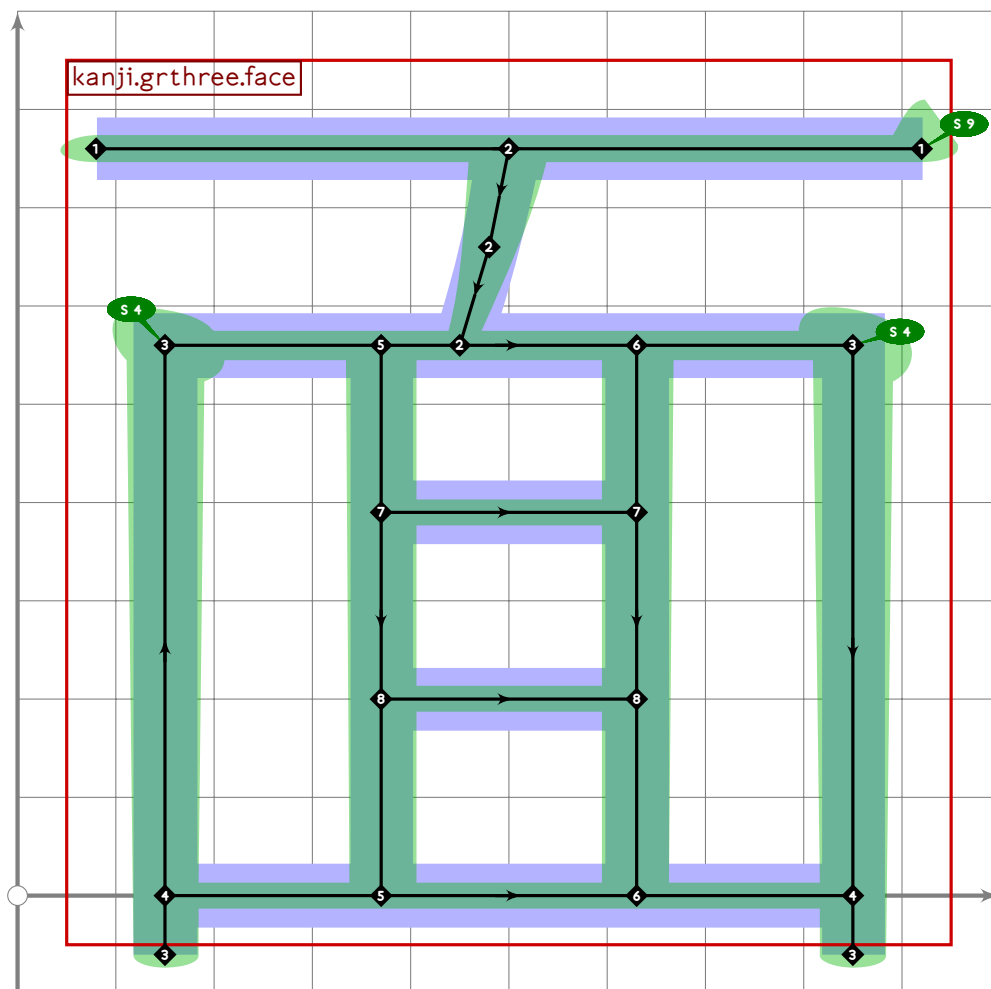


```

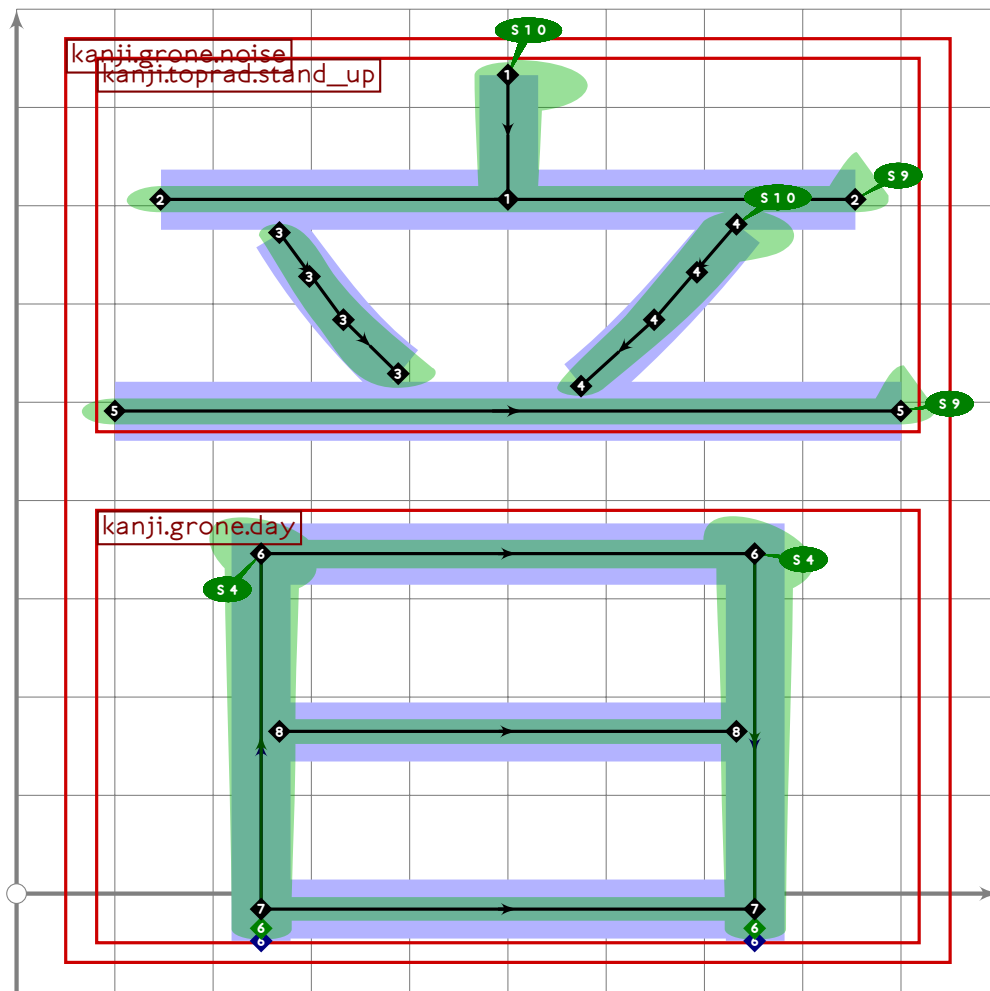
704 % u/ame "rain"
705 begintsuglyph("uni2FAC";172);
706   kanji.grone.rain;
707   tsu_render;
708 endtsuglyph;
709

```

U+2FAF  
tsuku.uni2FAF



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

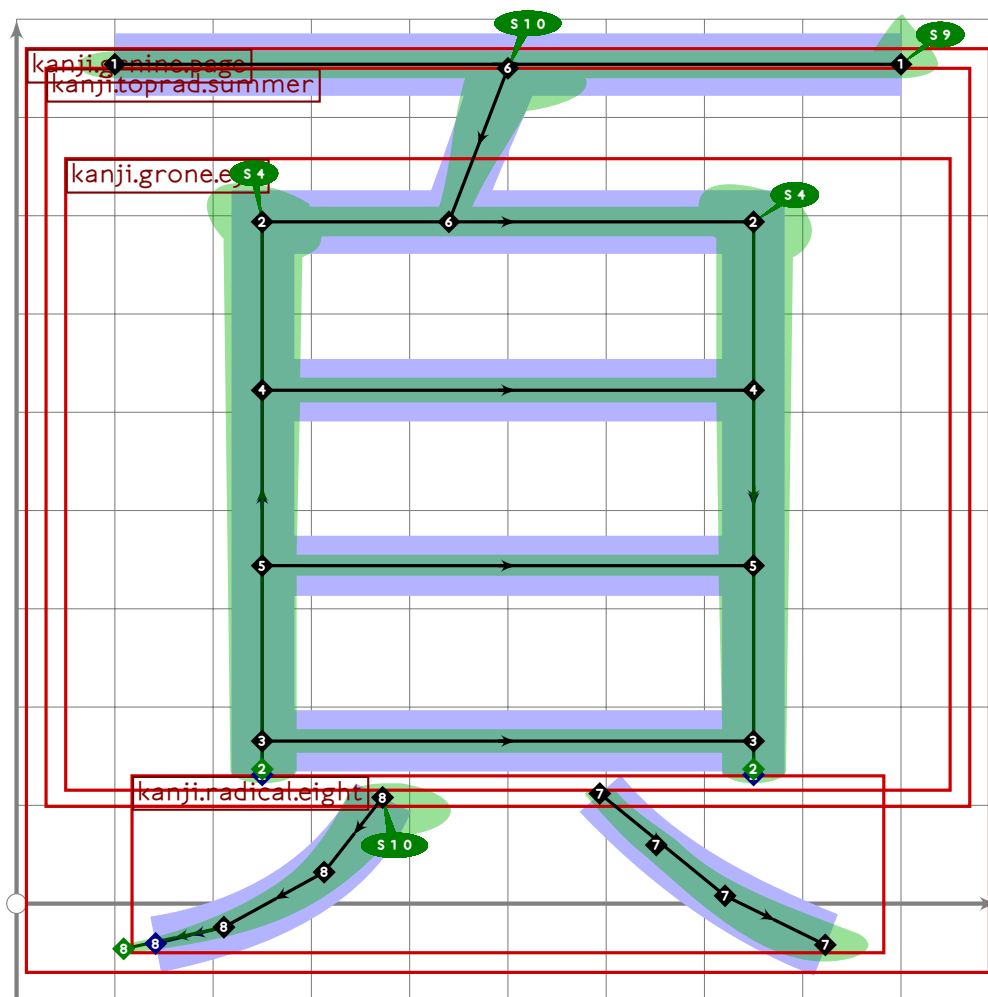


```

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

```

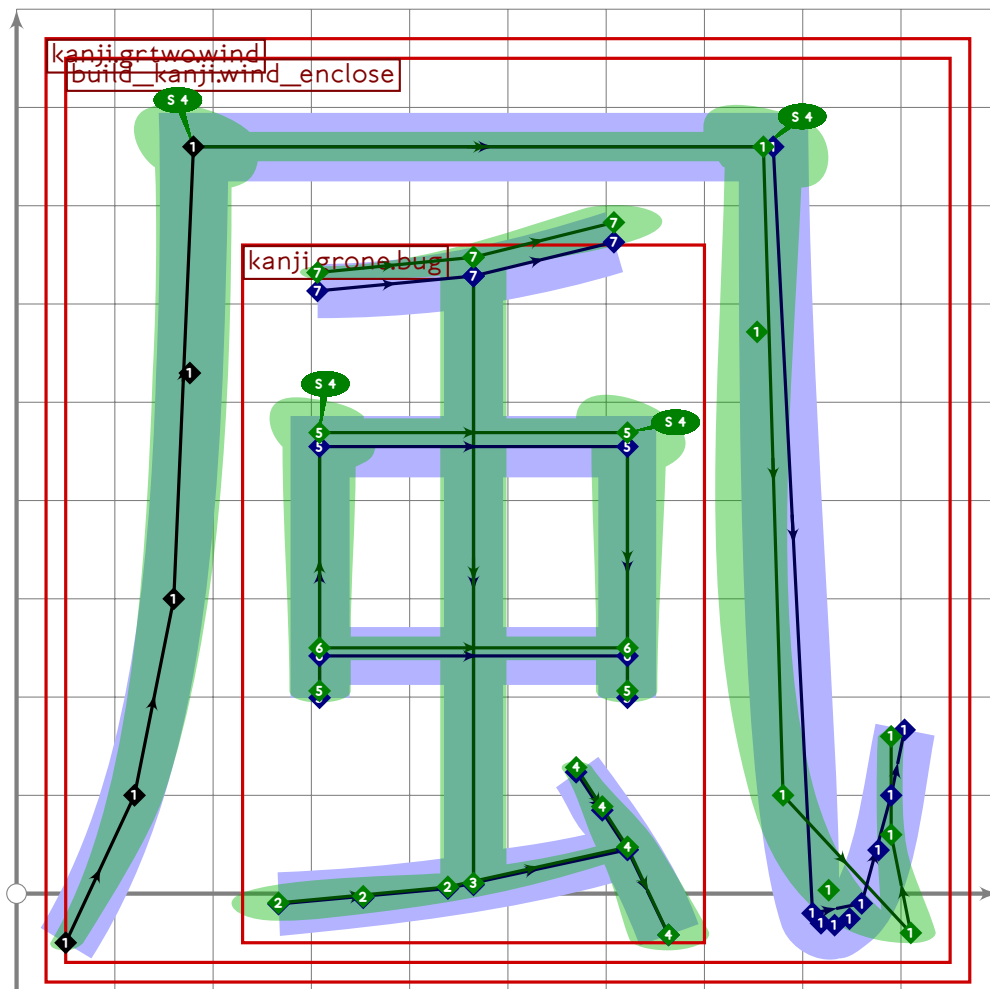
U+2FB4  
tsuku.uni2FB4



```

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

```



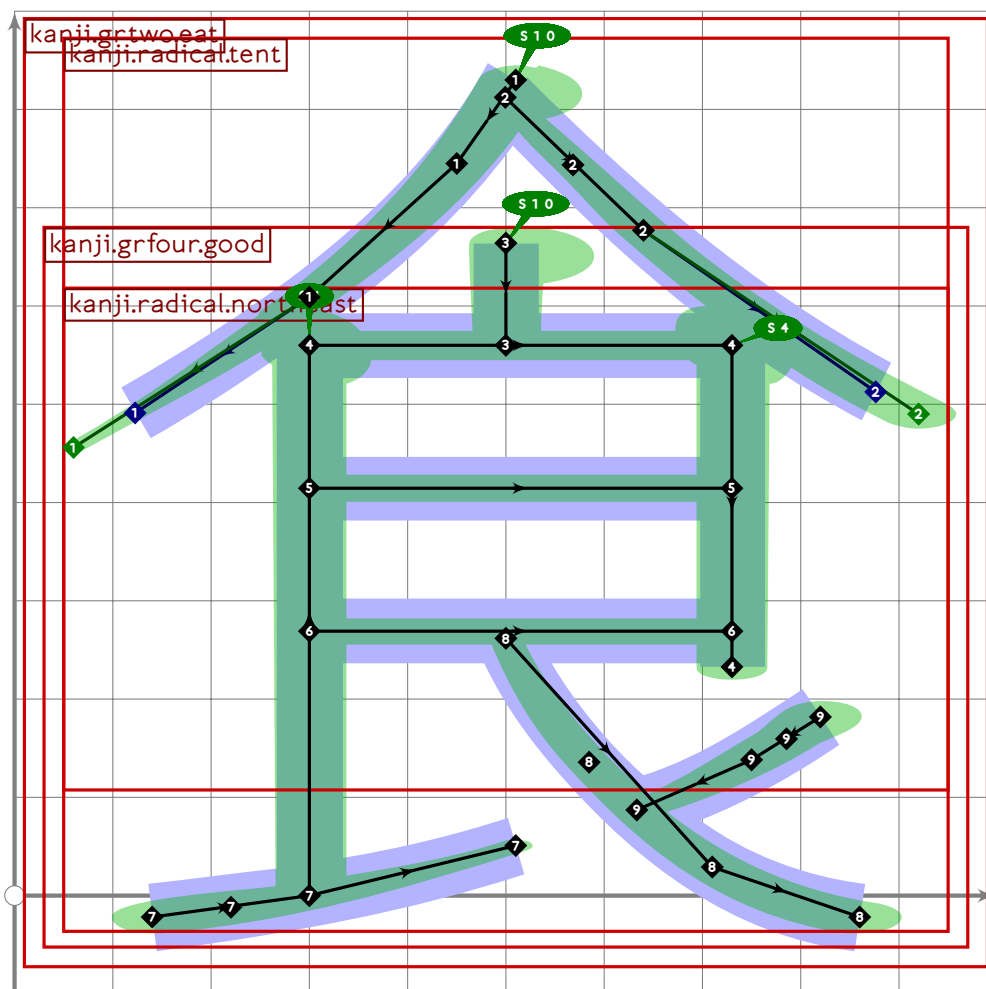
```

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

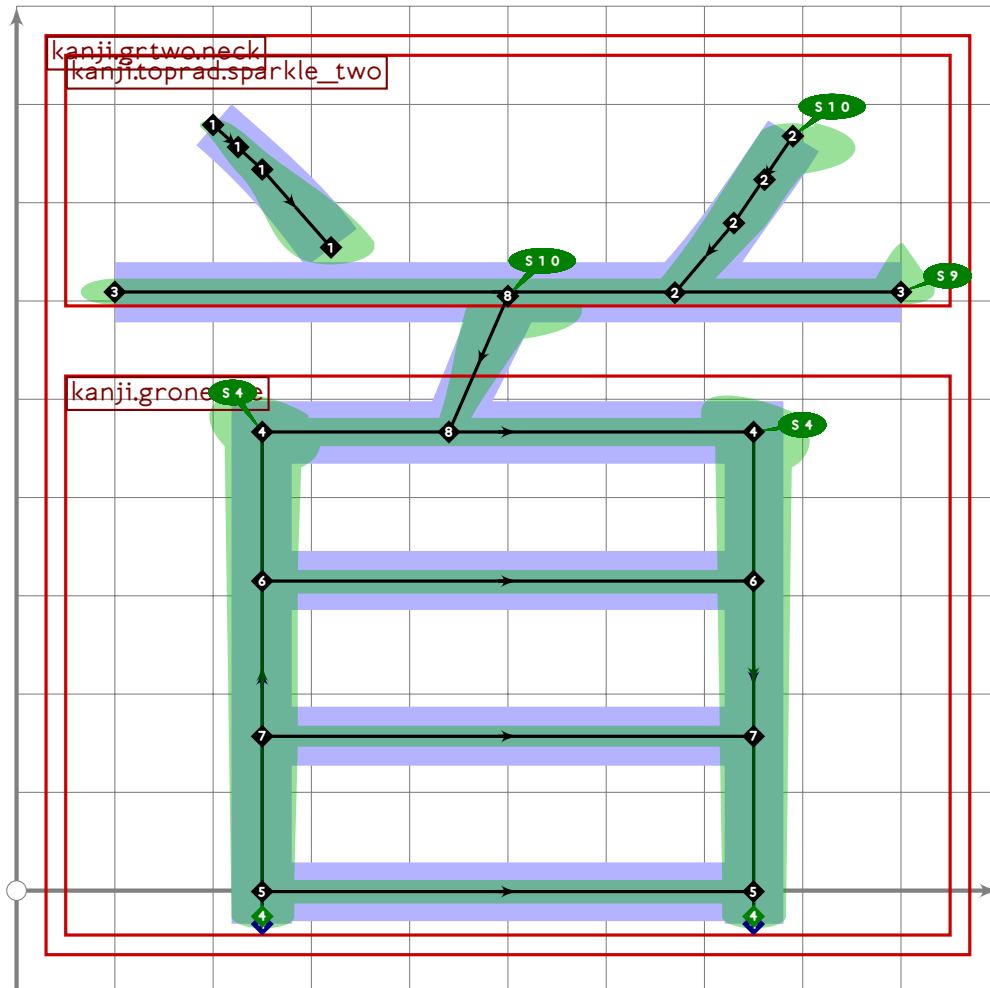
```



U+2FB7  
tsuku.uni2FB7



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

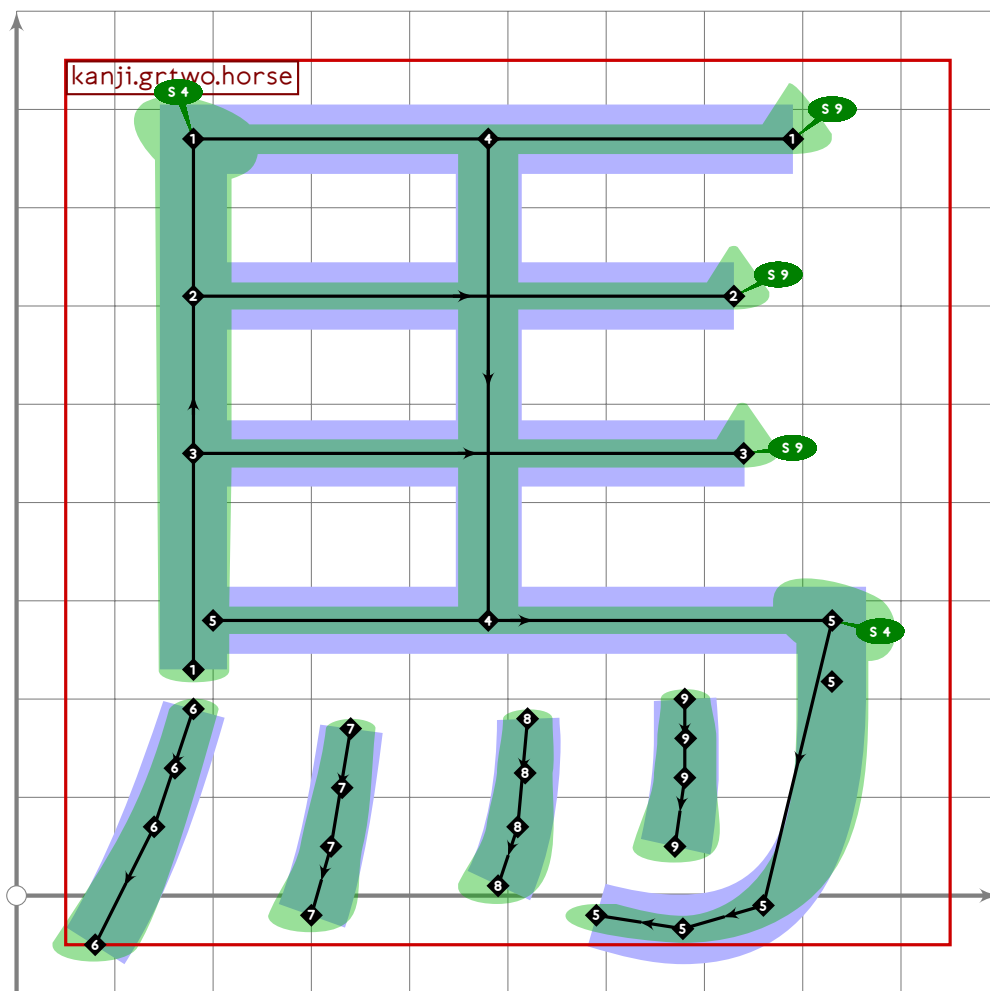


```

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

```

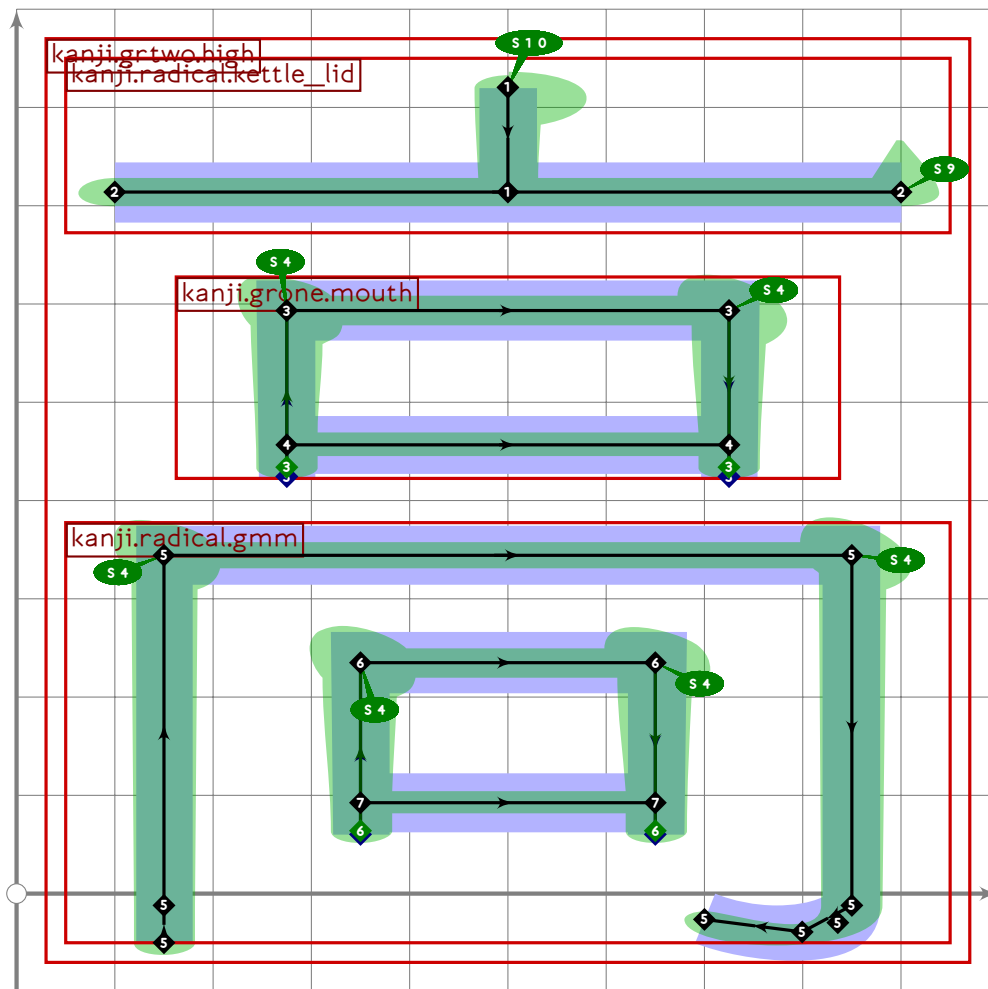
U+2FBA  
tsuku.uni2FBA



```

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

```

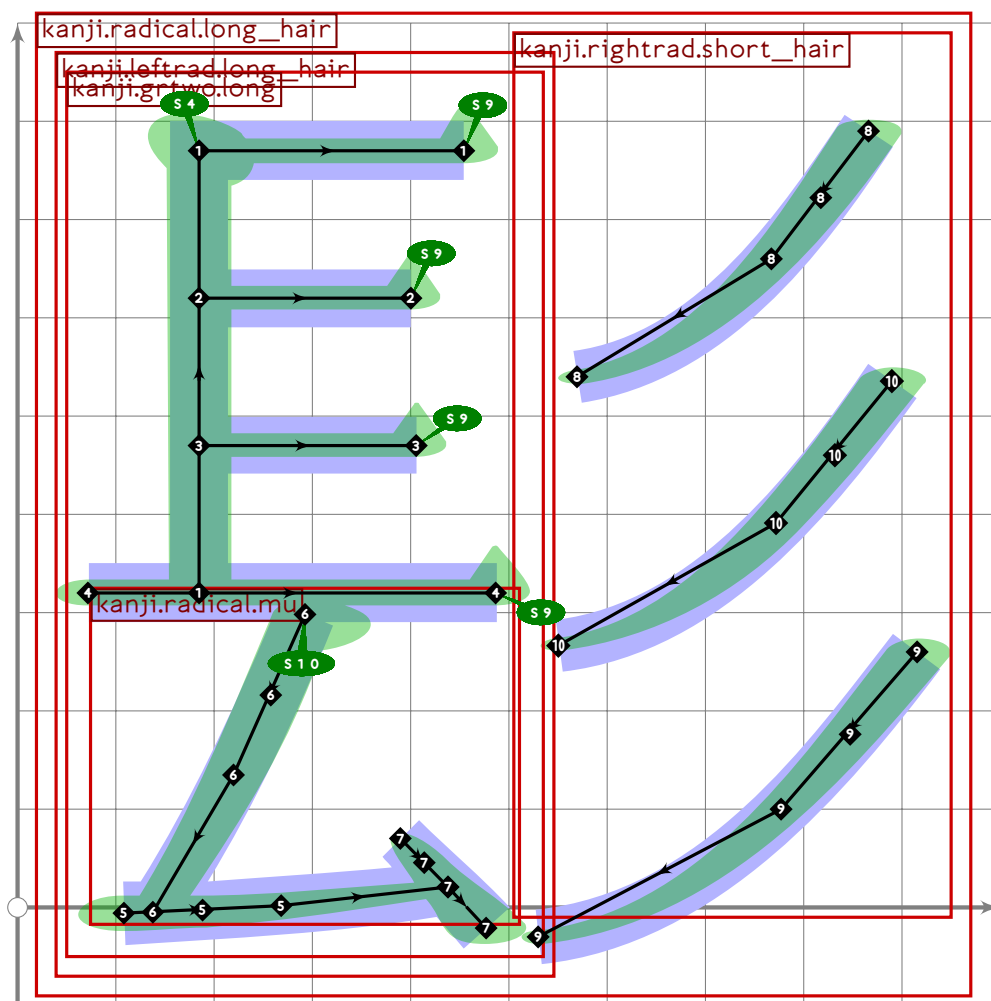


```

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

```

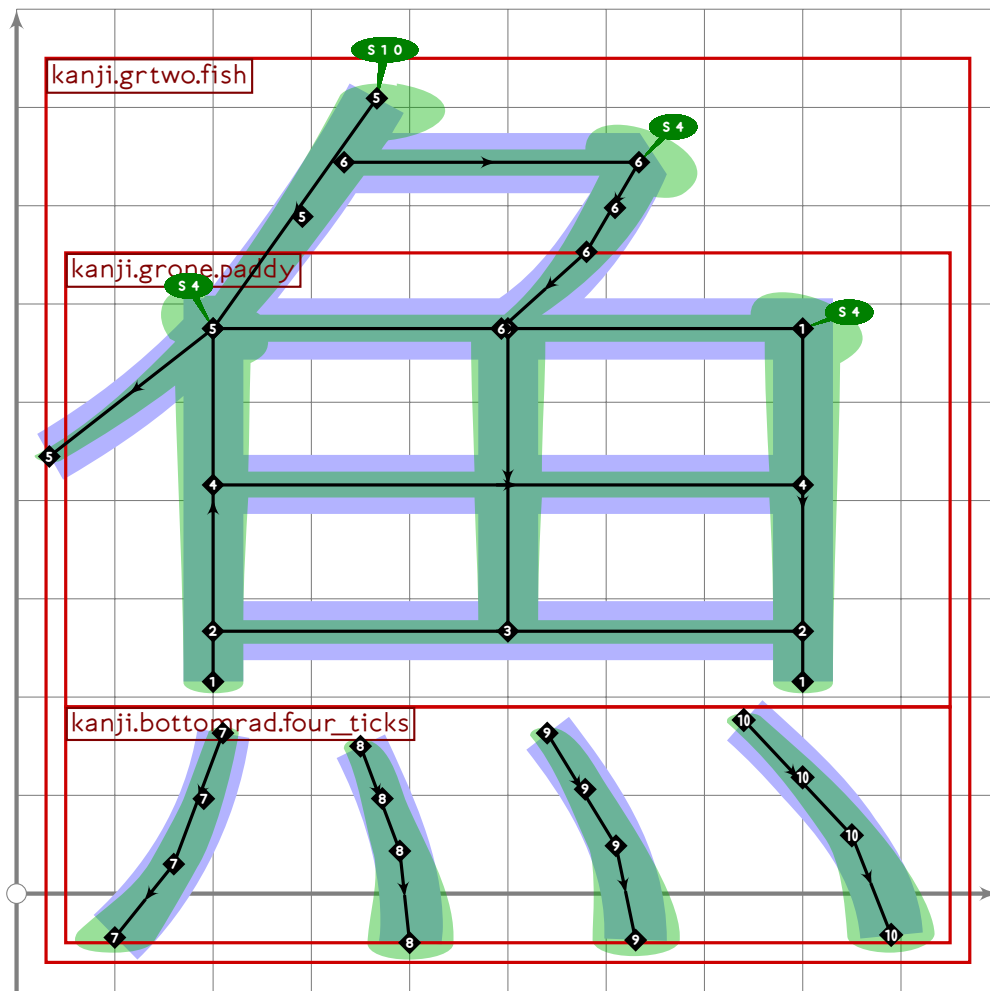
U+2FBD  
tsuku.uni2FBD



```

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

```

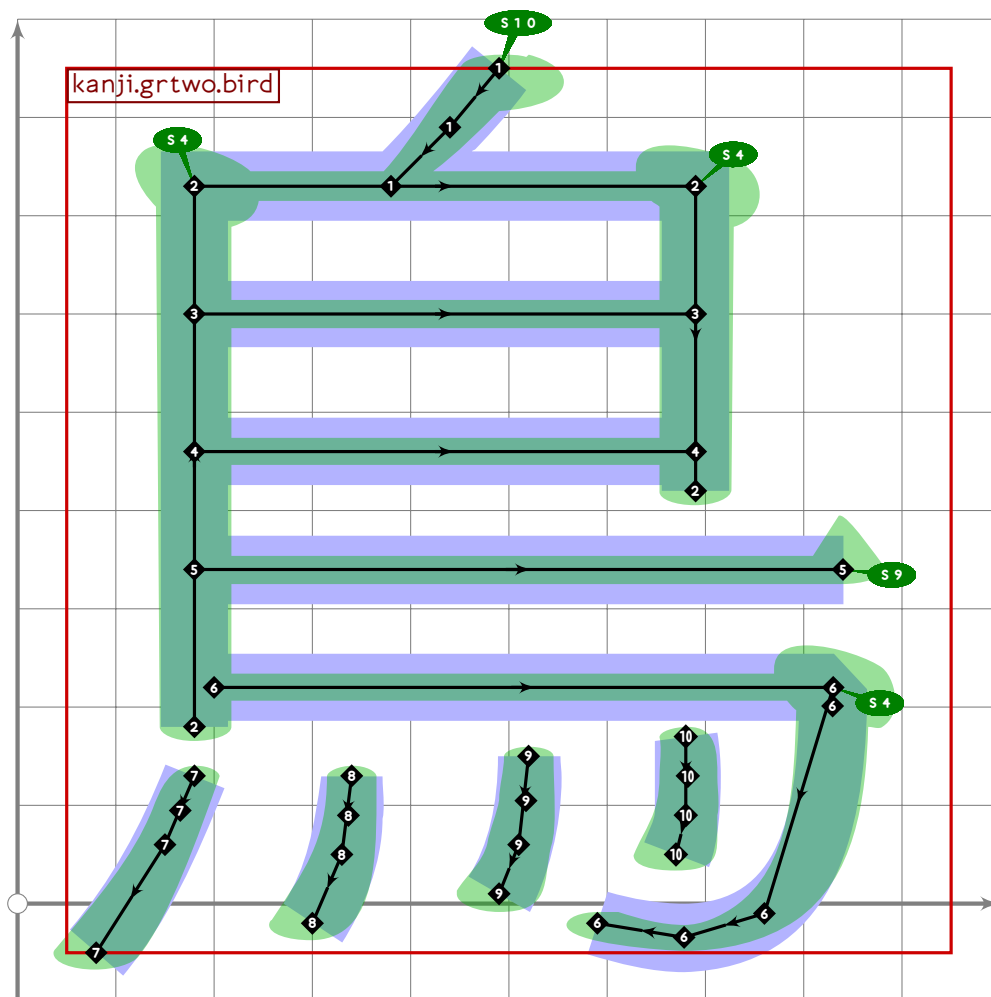


```

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

```

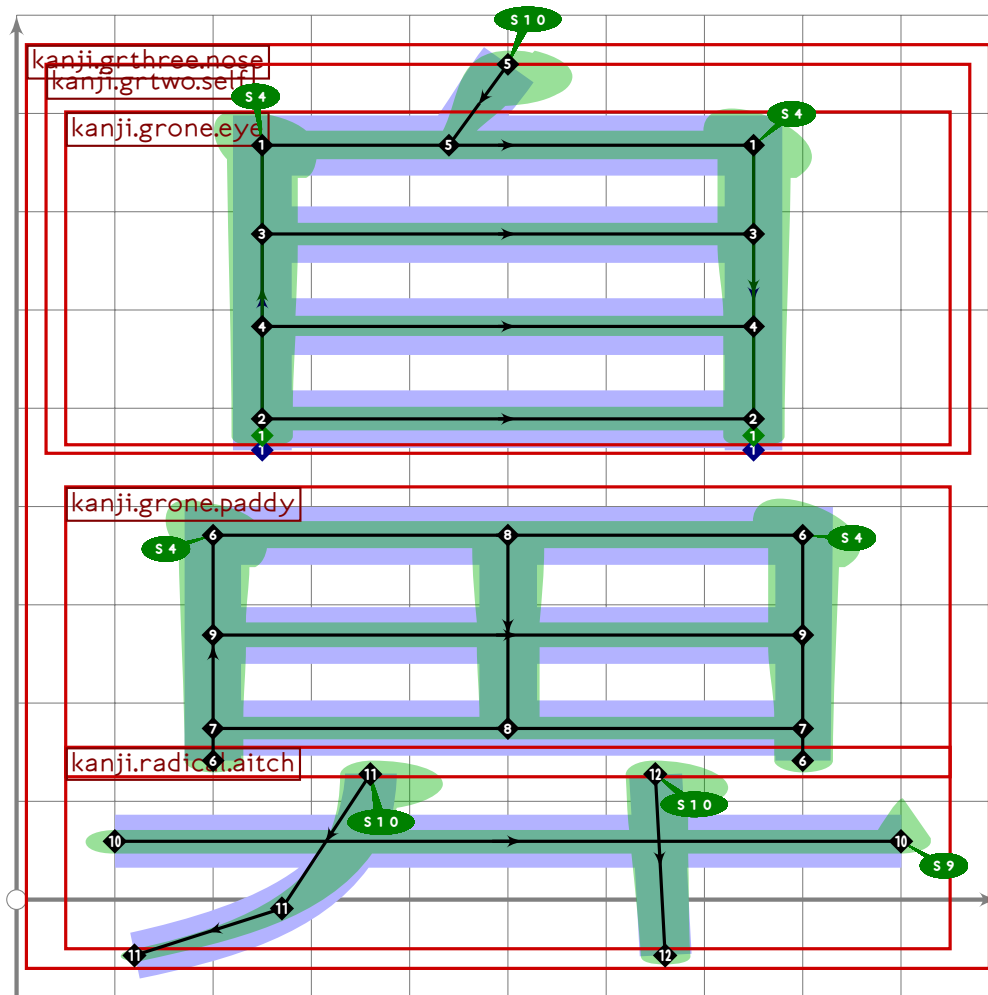
U+2FC3  
tsuku.uni2FC3



```

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

```



```

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

```



```

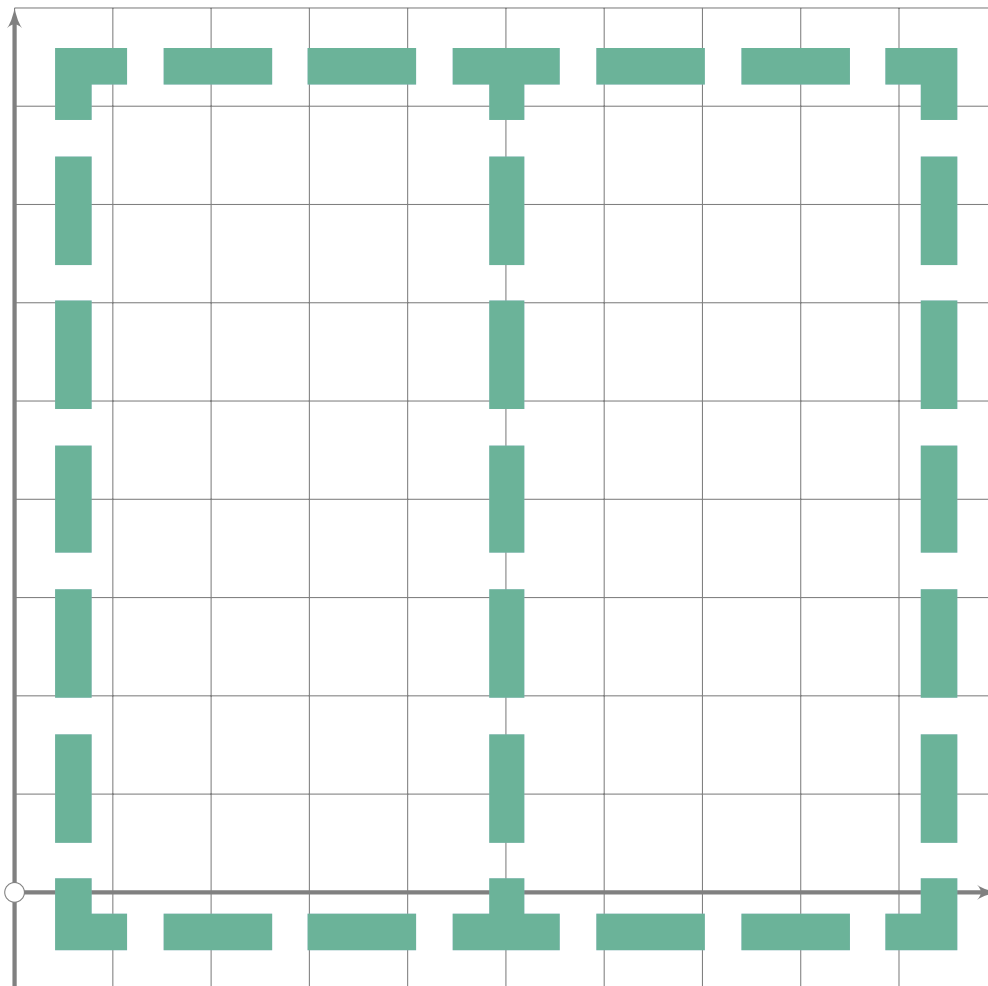
795 vardef idc_vert(expr h,va,vb) =
796   for v:=va upto vb:
797     if v<vb: idc_corners[h][v].d:=1; fi;
798     if v>va: idc_corners[h][v].u:=1; fi;
799   endfor;
800 enddef;
801
802 vardef idc_rect(expr ur,ll) =
803   idc_horiz(y part ur,x part ur,x part ll);
804   idc_vert(x part ur,y part ll,y part ur);
805   idc_vert(x part ll,y part ll,y part ur);
806   idc_horiz(y part ll,x part ur,x part 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

```

```

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

```



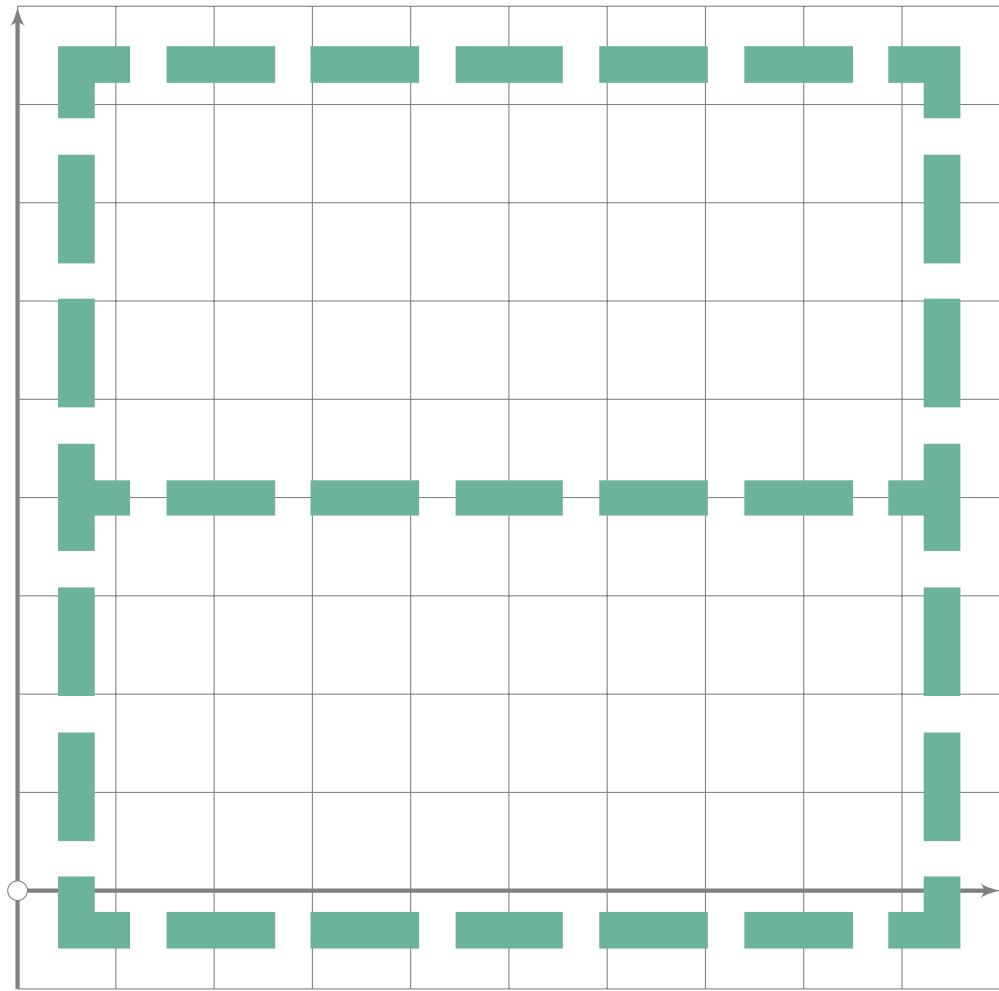
```

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

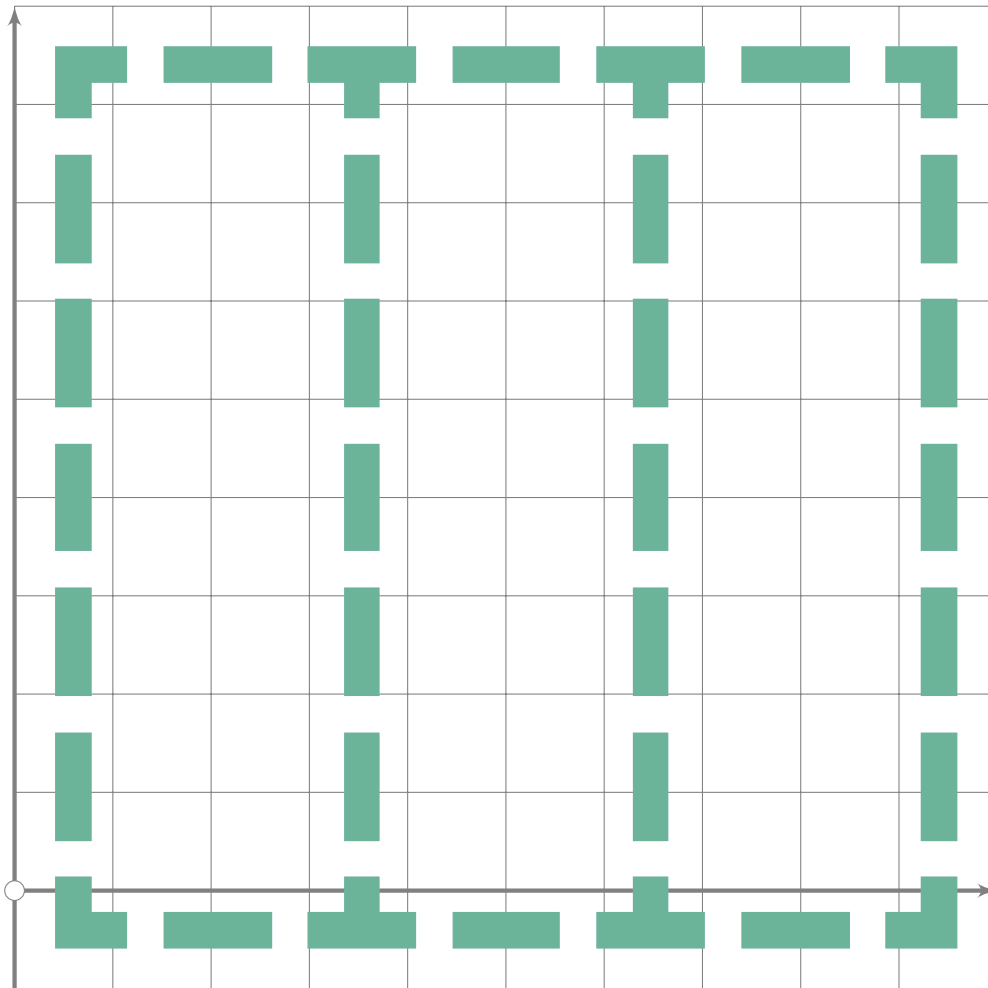
```

U+2FF1  
tsuku.uni2FF1

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

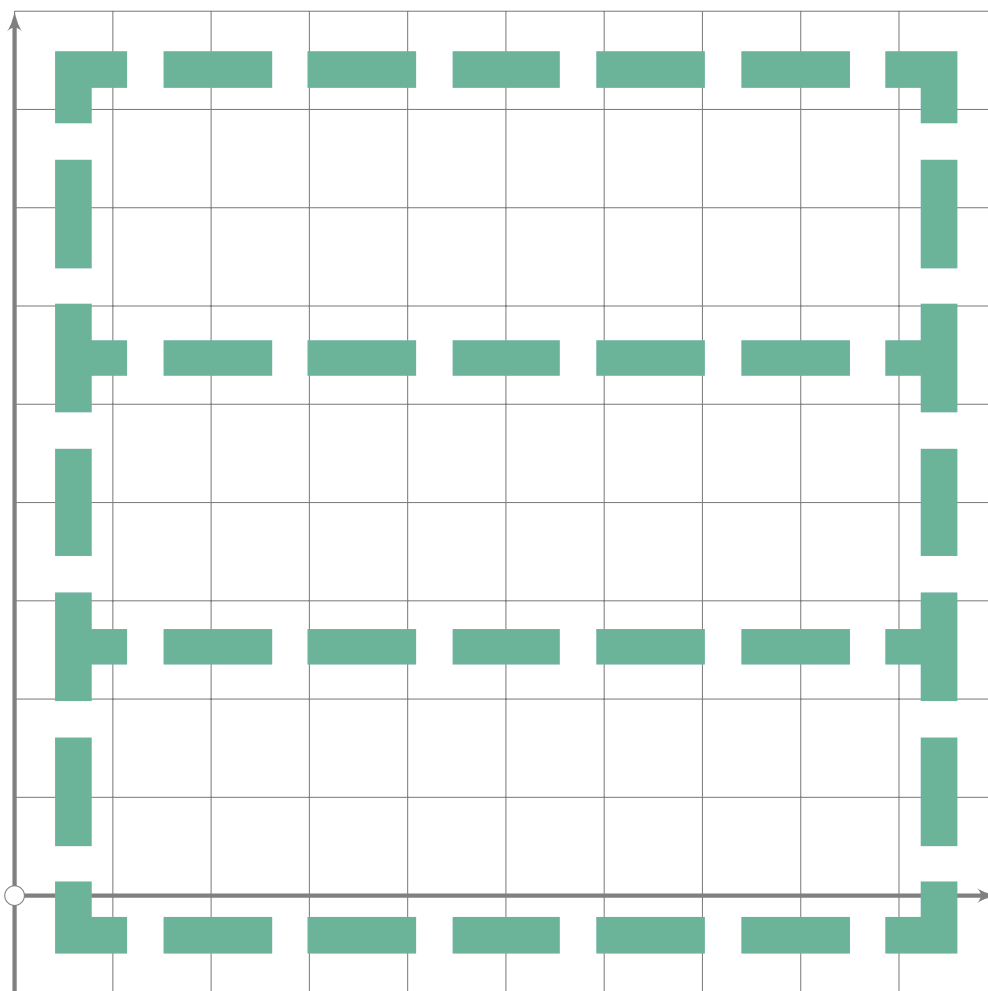


```

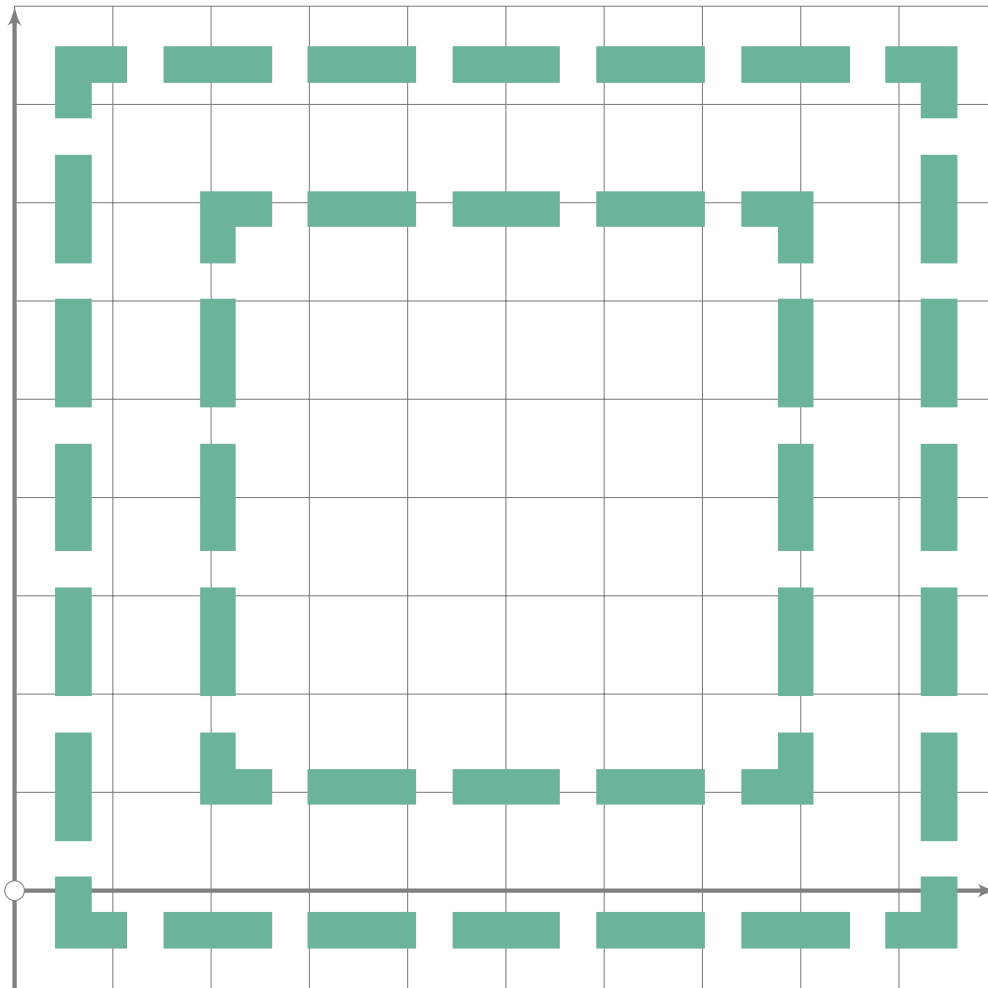
873 % left to middle to right
874 begint Suglyph("uni2FF2",242);
875   idc_rect((0,6),(6,0));
876   idc_vert(2,0,6);
877   idc_vert(4,0,6);
878   idc_render;
879 endtsuglyph;
880

```

U+2FF3  
tsuku.uni2FF3



```
881 % above to middle to below
882 begint Suglyph("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
```

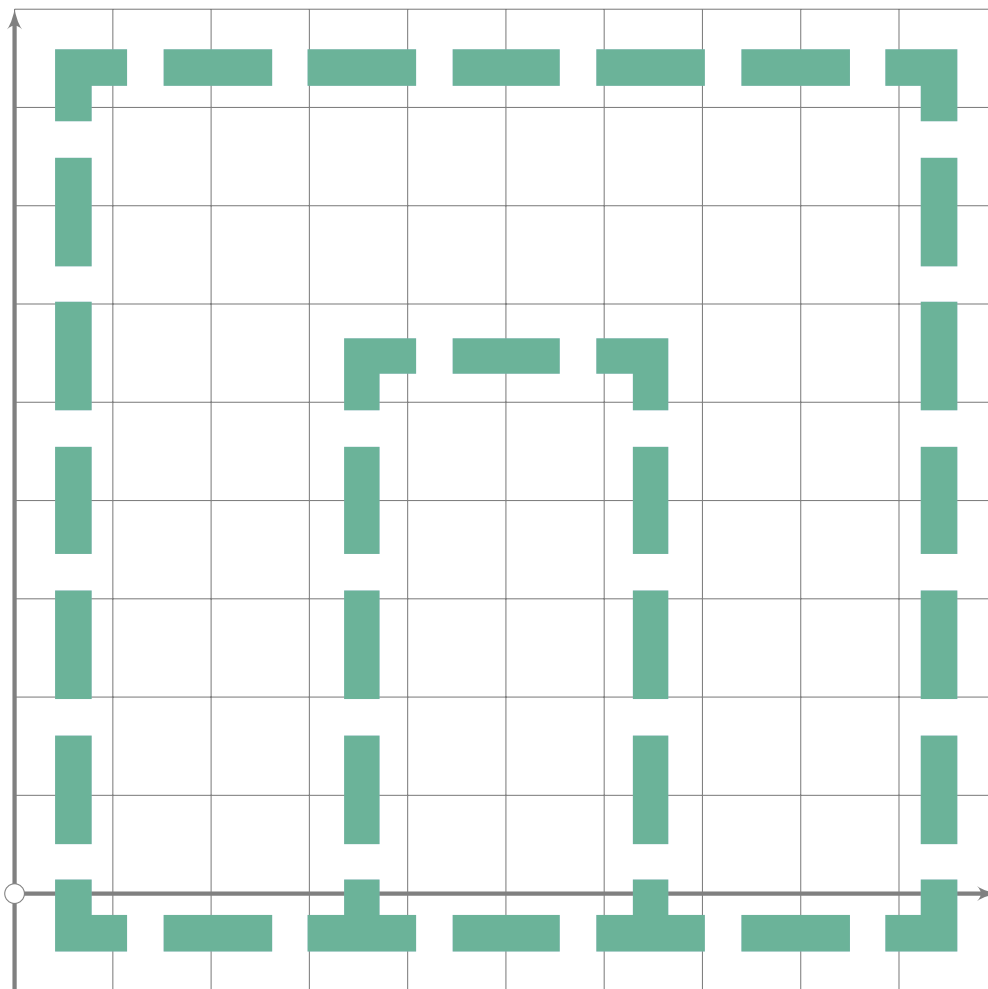


```

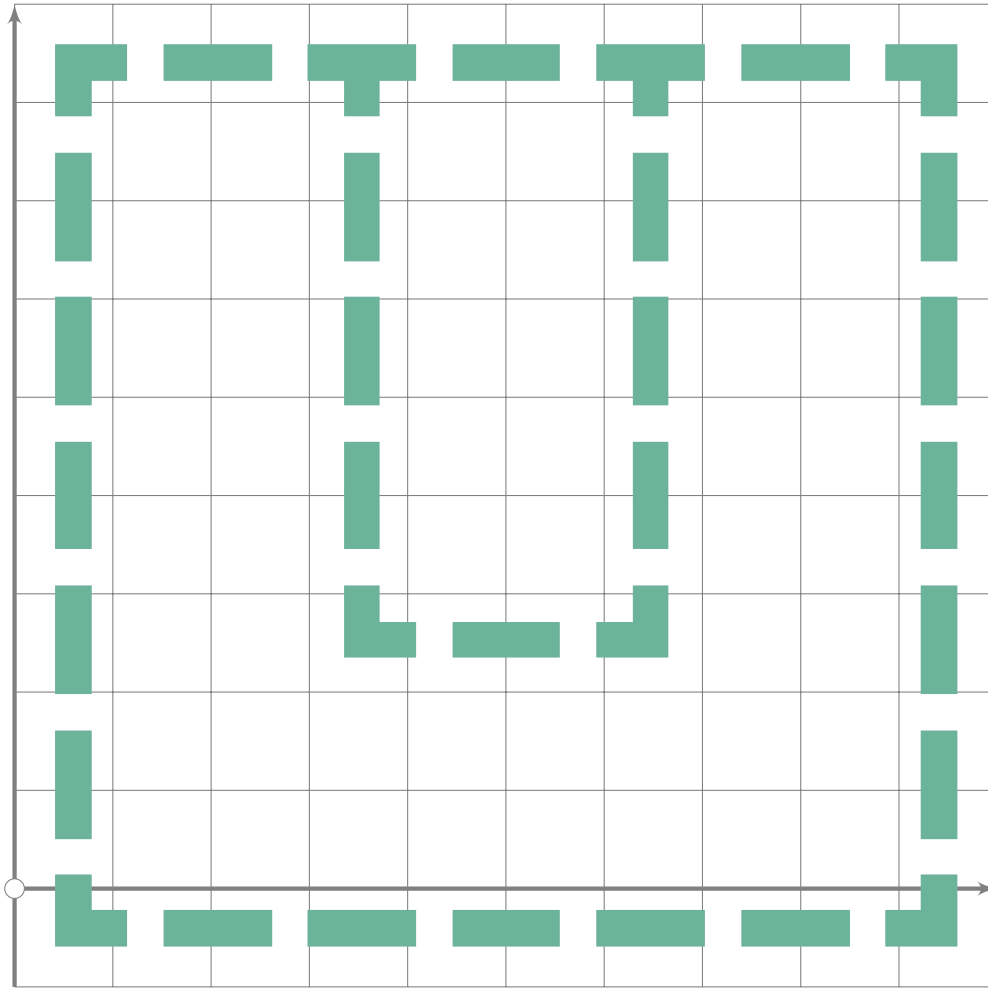
889 % full surround
890 begint Suglyph("uni2FF4";244);
891   idc_rect((0,6),(6,0));
892   idc_rect((1,5),(5,1));
893   idc_render;
894 endtsuglyph;
895

```

U+2FF5  
tsuku.uni2FF5



```
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
```



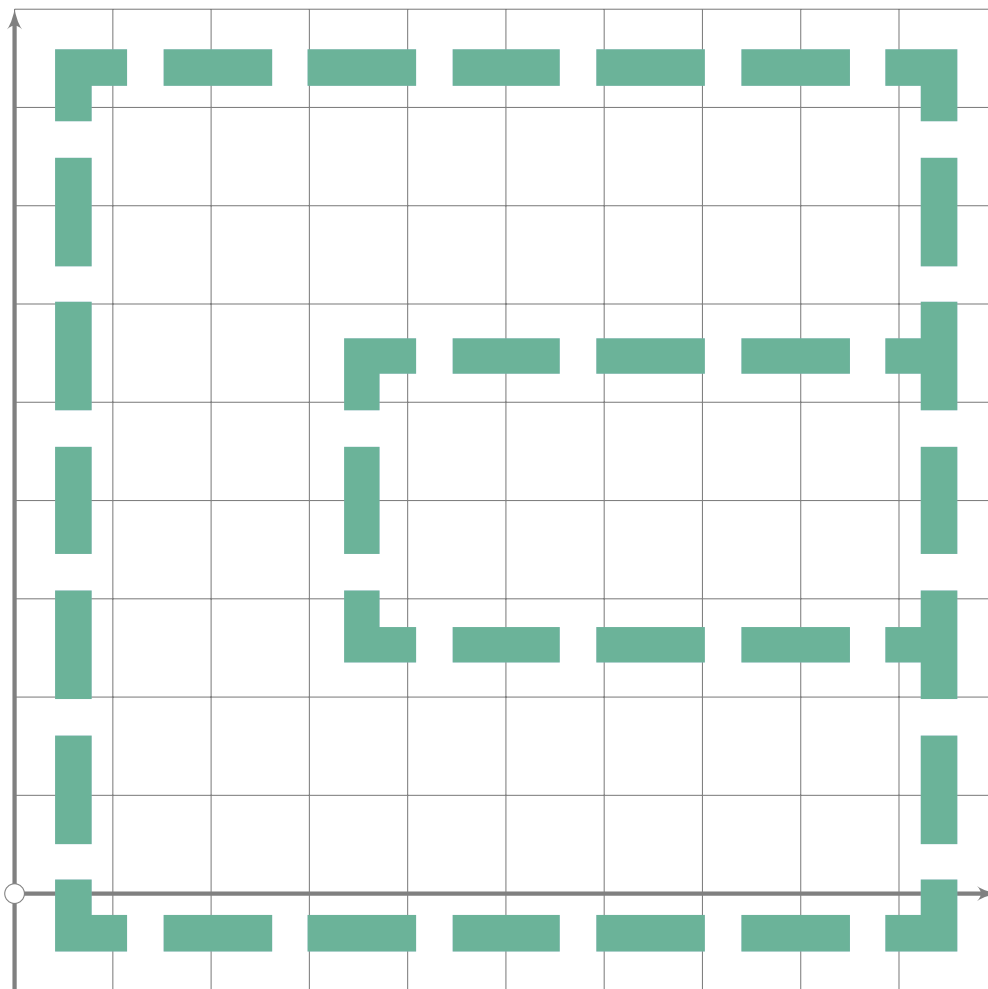
```

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

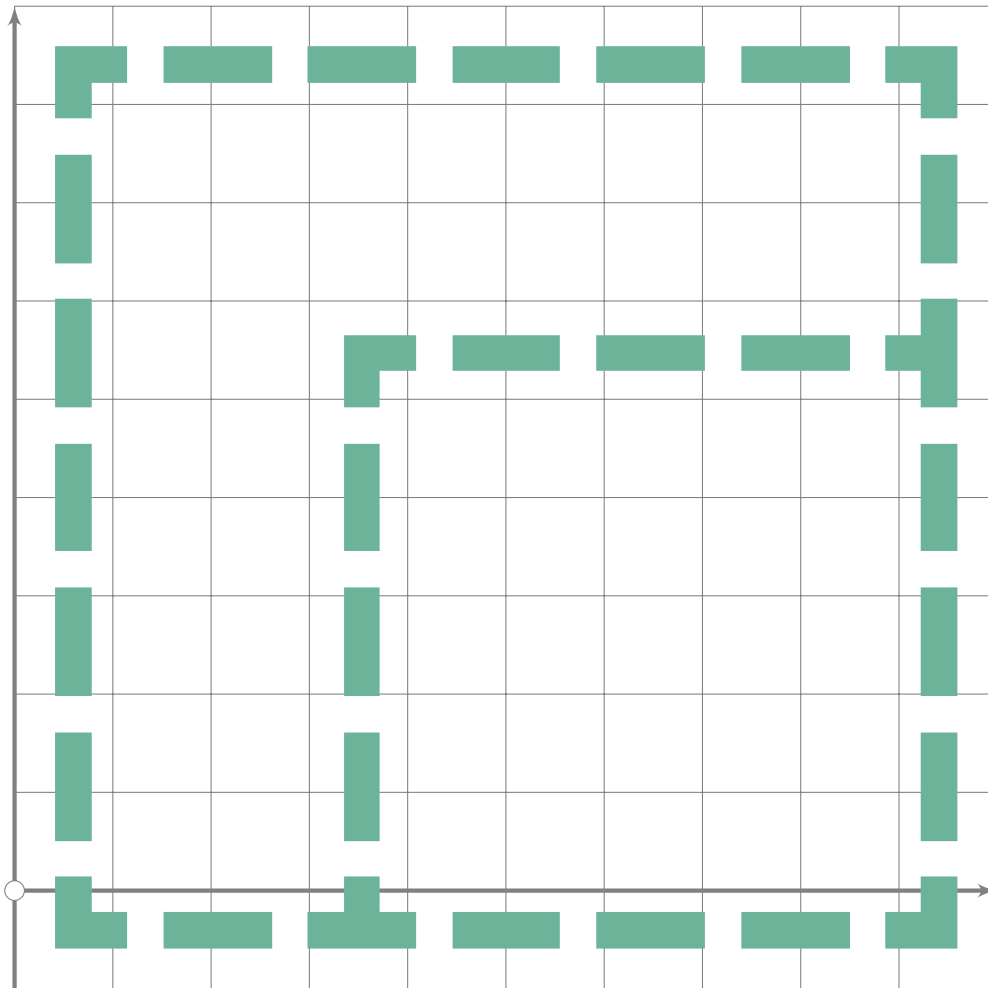
```



U+2FF7  
tsuku.uni2FF7



```
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
```

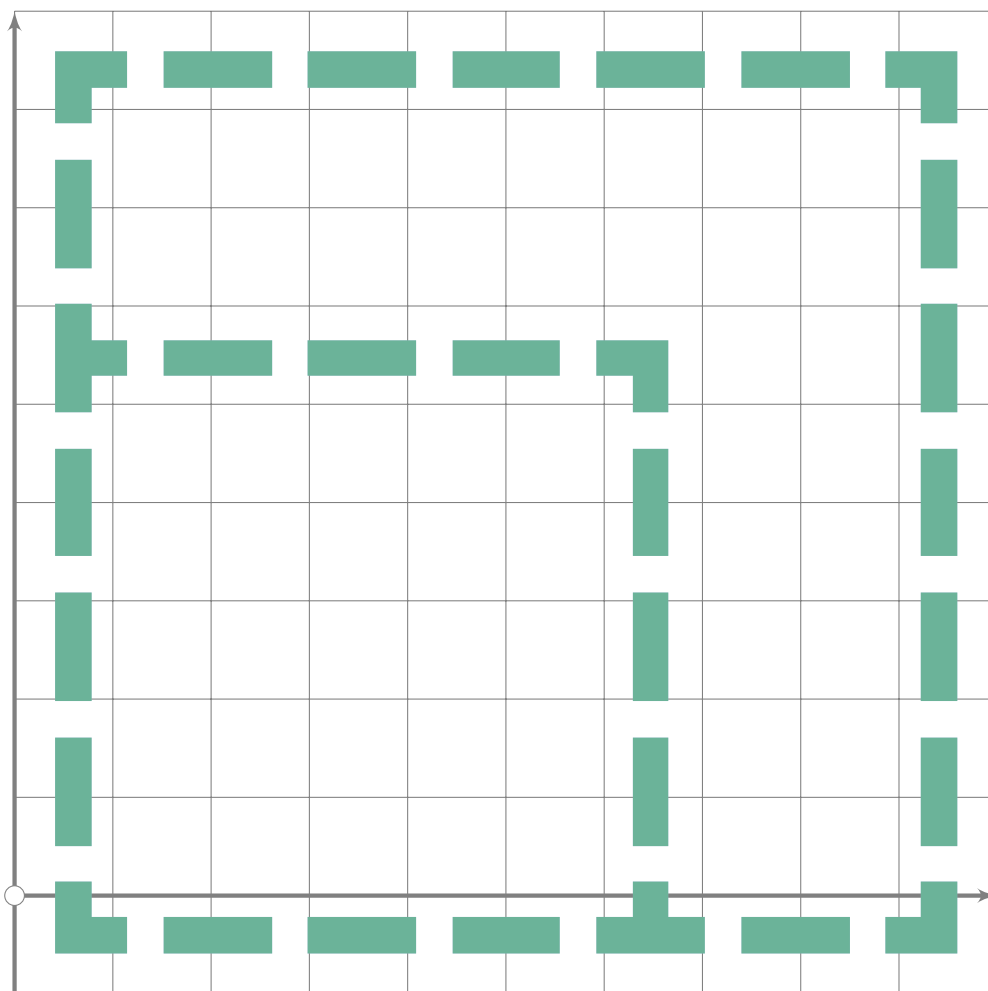


```

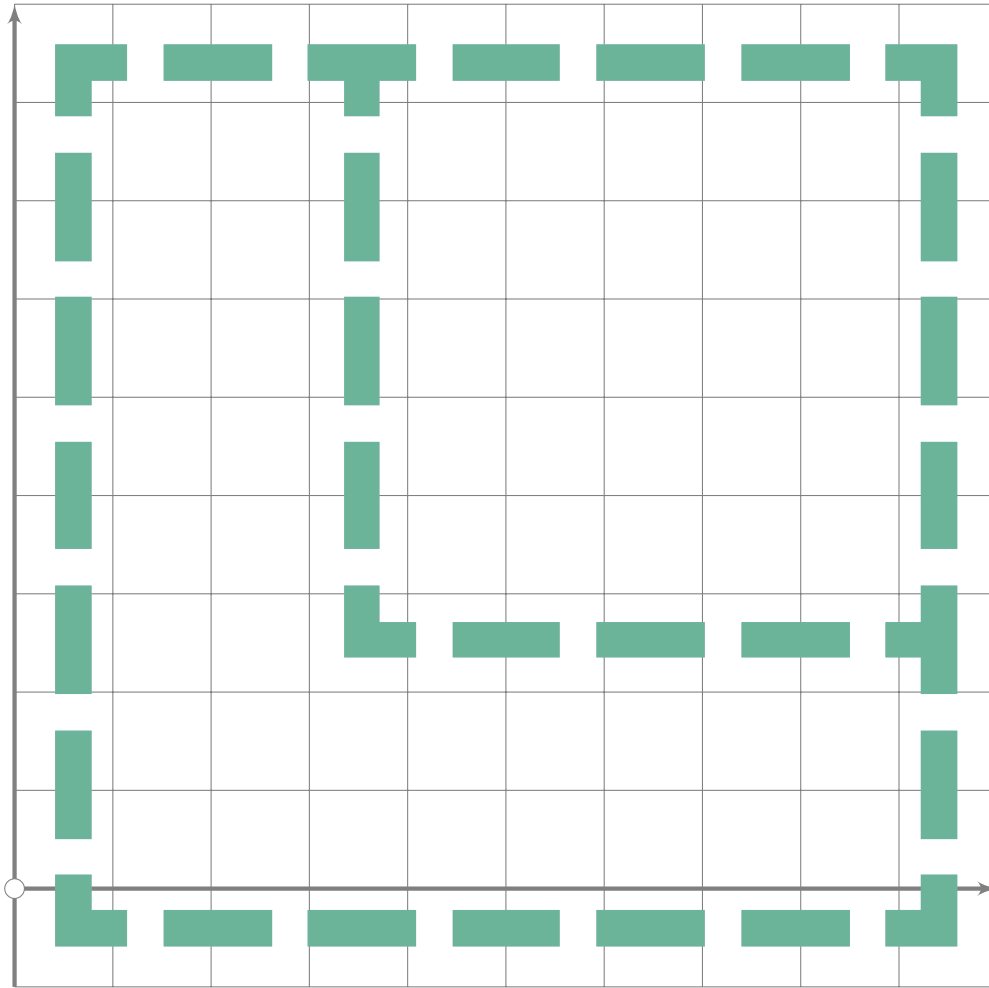
917 % surround from upper left
918 begint Suglyph("uni2FF8",248);
919   idc_rect((0,6),(6,0));
920   idc_rect((24),(6,0));
921   idc_render;
922 endtsuglyph;
923

```

U+2FF9  
tsuku.uni2FF9



```
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
```

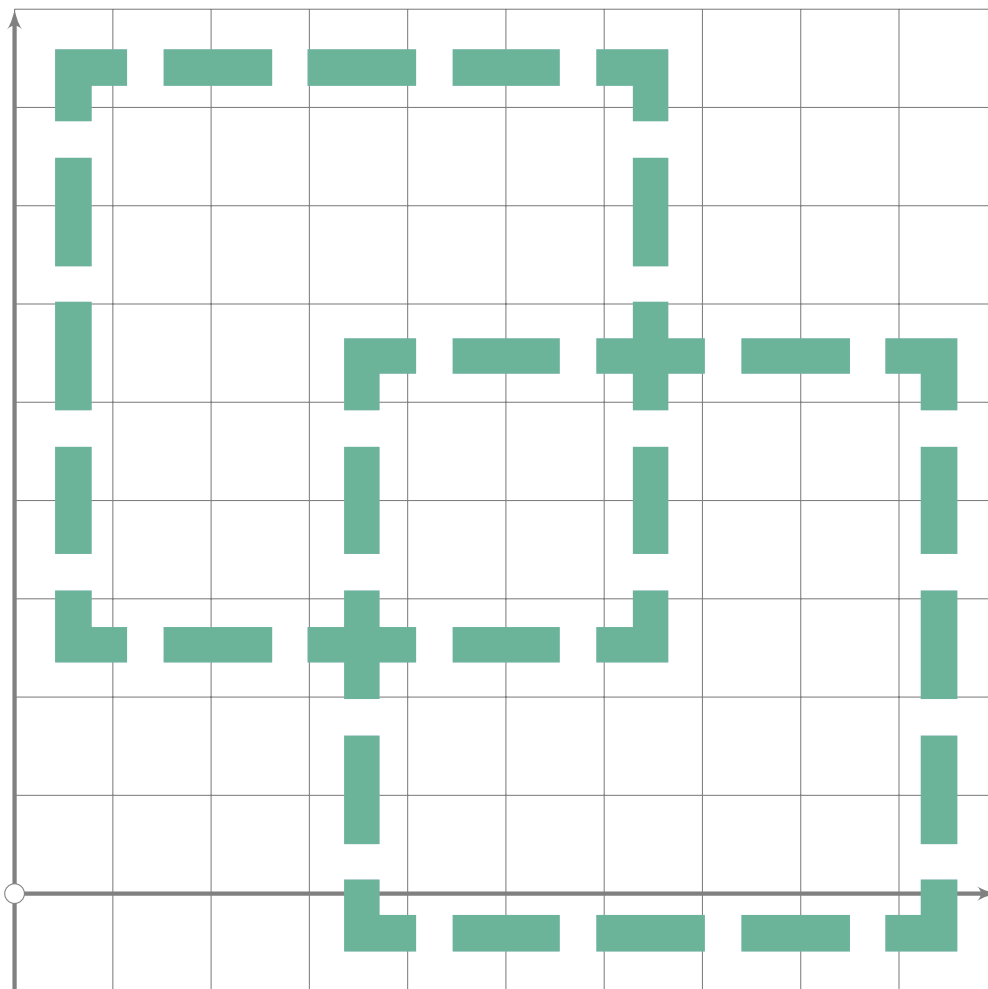


```

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

```

U+2FFB  
tsuku.uni2FFB



```
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
```