

# 1114 Choosing



**This pattern may not be copied, sold or in any other way handled in any way that violates the international copyright laws. If you get hold of this pattern (and or this document) in any other way than via a direct download from [www.goldenkite.com](http://www.goldenkite.com) or via a mail from us, you should report that to us at [legal\\_actions@goldenkite.com](mailto:legal_actions@goldenkite.com) .**

Copyright ( c ) 2007-, Golden Kite. All rights reserved.

## Instructions

Thank you for choosing Golden Kite products!  
We hope you will have lots of fun with this cross-stitch pattern!

### Fabric

Press the fabric with an iron if needed. A good thing to prevent the fabric from fraying is to machine zigzag the edges.

On large patterns, it is easiest to start from the upper left corner of the design. Make sure you have the proper margins before starting and that the fabric piece is of the correct size. The best way to verify this is to count all stitch positions on the fabric from the upper left corner downwards and to the right to make sure there is enough space for the design.

Some prefer to start in the center of the design instead. To locate the center of the fabric, fold the fabric in half both vertically and horizontally. The center is located where these two folds meet.

### Stitches

Each length of DMC tread consists of six strands.  
Use two of these strands for all stitches.

Note that some colors may be mixes (or blends) between two different pure colors. In that case take one strand of the two colors each and thread the two strands into the needle at the same time for stitching.

All stitches are full cross-stitches. No half-stitching and no back-stitching is necessary in this pattern.

All cross-stitches will be worked into the holes in the fabric from left to right. Always use the larger holes in the fabric for the stitches. Adjacent stitches should meet in the same hole. Make sure all stitches cross in the same direction.

Please be careful when washing the finished embroidery! The cotton thread may bleed when washed. Only hand wash it in lukewarm water. Remove excess water by roll it in a towel and lay it flat to air dry. Natural fabrics may shrink slightly when washed. We do not recommend washing the embroidery if not absolutely necessary and we take no responsibility for any damage that may occur.

*When you start using this product you agree that Golden Kite (Golden K), or any people working for or in association with Golden Kite (Golden K), cannot be set responsible for any physical, mental, economical or other type of damage caused by this product (including this document, pattern, threads, needles and any other parts received by you from Golden Kite (Golden K)).*

**This pattern may not be copied, sold or in any other way handled in any way that violates the international copyright laws. If you get hold of this pattern (and or this document) in any other way than via a direct download from [www.goldenkite.com](http://www.goldenkite.com) or via a mail from us, you should report that to us at [legal\\_actions@goldenkite.com](mailto:legal_actions@goldenkite.com) .**

## Choosing

Stitch Count	
Horizontal:	400
Vertical:	525

Recommended Fabric Color
Antique White

This table tells the size of the pattern (without any margins) and the size of the fabric required to stitch the pattern (including recommended margins). 3 inch margins have been added on each side in the 'Including Margins' row.

The sizes are given for 14, 16 and 18 stitches per inch fabrics.

Make sure to use the 'Including Margins' row when cutting the piece of fabric to be used. Also make sure that 3 inch margins are enough for your stitching technique and add more margin areas if necessary.

	14				16				18			
	Width		Height		Width		Height		Width		Height	
	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch
Pattern:	73	28.44	96	37.44	64	24.89	84	32.76	57	22.125	74	29.125
Including Margins:	89	35	112	44	80	31	100	39	73	29	90	36
	10				12				24			
	Width		Height		Width		Height		Width		Height	
	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch
Pattern:	102	39.81	134	52.41	85	33.18	112	43.68	42	16.59	56	21.84
Including Margins:	118	46	150	59	101	40	128	50	58	23	72	28
	25				26				27			
	Width		Height		Width		Height		Width		Height	
	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch
Pattern:	40	15.92	53	20.96	39	15.31	51	20.16	37	14.74	49	19.41
Including Margins:	56	22	69	27	55	22	67	27	53	21	65	26
	28				30				32			
	Width		Height		Width		Height		Width		Height	
	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch
Pattern:	36	14.22	48	18.72	34	13.27	44	17.47	31	12.44	42	16.38
Including Margins:	52	21	64	25	50	20	60	24	47	19	58	23

Solid Color Stitches. Use two strands of the specified color for these stitches.		
Symbol	DMC	Name
♣	221	Shell Pink-VY DK
↑	300	Mahogany-VY DK
▼	304	Christmas Red-MD
⬆	347	Salmon-VY DK
⬇	350	Coral-MD
⬇	351	Coral
⬇	355	Terra Cotta-DK
○	356	Terra Cotta-MD
⌒	370	Mustard-MD
⬇	371	Mustard
⬇	400	Mahogany-DK
⬇	420	Hazelnut Brown-DK
✱	433	Brown-MD
✱	434	Brown-LT
✓	435	Brown-VY LT
:	436	Tan
4	471	Avocado Green-VY LT
⬇	610	Drab Brown-DK
⬇	611	Drab Brown
⬇	612	Drab Brown-LT
⬆	632	Desert Sand-UL VY DK
⬇	640	Beige Gray-VY DK
9	642	Beige Gray-DK
⌘	645	Beaver Gray-VY DK
5	680	Old Gold-DK
∨	722	Orange Spice-LT
○	729	Old Gold-MD
✱	730	Olive Green-VY DK
)	734	Olive Green-LT
«	743	Yellow-MD
⌒	780	Topaz-UL VY DK
↑	782	Topaz-DK
←	801	Coffee Brown-DK
+	829	Golden Olive-VY DK
★	830	Golden Olive-DK
⊕	831	Golden Olive-MD
7	832	Golden Olive
□	834	Golden Olive-VY LT

✱	838	Beige Brown-VY DK
✱	839	Beige Brown-DK
φ	844	Beaver Brown-UL DK
⌒	869	Hazelnut Brown-VY DK
⊕	898	Coffee Brown-VY DK
⊕	900	Burnt Orange-DK
○	919	Red Copper
△	920	Copper-MD
⬆	921	Copper
⬆	922	Copper-LT
■	938	Coffee Brown-UL DK
♠	975	Golden Brown-DK
♠	976	Golden Brown-MD
⌒	977	Golden Brown-LT
⬆	3011	Khaki Green-DK
⬆	3012	Khaki Green-MD
⌘	3021	Brown Gray-VY DK
⬆	3022	Brown Gray-MD
●	3031	Mocha Brown-VY DK
⬆	3045	Yellow Beige-DK
⬆	3051	Green Gray-DK
⬆	3052	Green Gray-MD
⬆	3328	Salmon-DK
○	3340	Apricot-MD
⬆	3347	Yellow Green-MD
⬆	3685	Mauve-DK
—	3776	Mahogany-LT
⬆	3777	Terra Cotta-VY DK
⬆	3781	Mocha Brown-DK
⊕	3787	Brown Gray-DK
⬆	3790	Beige Gray-UL DK
△	3826	Golden Brown
△	3827	Golden Brown-Pale
◇	3828	Hazelnut Brown
..	3829	Old Gold-VY DK
♠	3830	Terra Cotta-MD
(	3854	Autumn Gold-MD
✱	3857	Rosewood-DK
⬆	3862	Mocha Beige-DK
⬆	3863	Mocha Beige-MD

Blend Stitches. Use one strand of each of DMC1 and DMC2 for these stitches.				
Symbol	DMC1	Name1	DMC2	Name2
➡	838	Beige Brown-VY DK	839	Beige Brown-DK
=	610	Drab Brown-DK	839	Beige Brown-DK
↓	839	Beige Brown-DK	3021	Brown Gray-VY DK
⬆	838	Beige Brown-VY DK	3021	Brown Gray-VY DK
⬆	610	Drab Brown-DK	3051	Green Gray-DK
⬆	3021	Brown Gray-VY DK	3051	Green Gray-DK
✱	610	Drab Brown-DK	3362	Pine Green-DK
◇	610	Drab Brown-DK	580	Moss Green-DK

▀	3051	Green Gray-DK	580	Moss Green-DK
●	580	Moss Green-DK	3781	Mocha Brown-DK
◐	610	Drab Brown-DK	3781	Mocha Brown-DK
⊕	3011	Khaki Green-DK	3346	Hunter Green
‡	470	Avocado Green-LT	3011	Khaki Green-DK
☛	580	Moss Green-DK	3011	Khaki Green-DK
⬇	3031	Mocha Brown-VY DK	936	Avocado Green-VY DK
▲	936	Avocado Green-VY DK	3781	Mocha Brown-DK
►	936	Avocado Green-VY DK	610	Drab Brown-DK
?	3781	Mocha Brown-DK	3051	Green Gray-DK
◌	3781	Mocha Brown-DK	3021	Brown Gray-VY DK
⌘	838	Beige Brown-VY DK	936	Avocado Green-VY DK
◐	975	Golden Brown-DK	433	Brown-MD
⊕	420	Hazelnut Brown-DK	632	Desert Sand-UL VY DK
⊕	435	Brown-VY LT	3830	Terra Cotta-MD
❖	610	Drab Brown-DK	632	Desert Sand-UL VY DK
☐	3772	Desert Sand-VY DK	632	Desert Sand-UL VY DK
◉	301	Mahogany-MD	420	Hazelnut Brown-DK
⌘	433	Brown-MD	632	Desert Sand-UL VY DK
**	801	Coffee Brown-DK	838	Beige Brown-VY DK
♣	221	Shell Pink-VY DK	433	Brown-MD
◉	420	Hazelnut Brown-DK	434	Brown-LT
L	301	Mahogany-MD	632	Desert Sand-UL VY DK
◀	610	Drab Brown-DK	420	Hazelnut Brown-DK
⌘	610	Drab Brown-DK	830	Golden Olive-DK
◀	3781	Mocha Brown-DK	830	Golden Olive-DK
◆	3685	Mauve-DK	935	Avocado Green-DK
✦	347	Salmon-VY DK	3721	Shell Pink-DK
⌘	921	Copper	347	Salmon-VY DK
*	632	Desert Sand-UL VY DK	355	Terra Cotta-DK
✧	350	Coral-MD	900	Burnt Orange-DK
T	900	Burnt Orange-DK	921	Copper
◁	350	Coral-MD	721	Orange Spice-MD
H	3776	Mahogany-LT	350	Coral-MD
►	301	Mahogany-MD	3830	Terra Cotta-MD
/	722	Orange Spice-LT	356	Terra Cotta-MD
⇒	722	Orange Spice-LT	3340	Apricot-MD
X	721	Orange Spice-MD	900	Burnt Orange-DK
#	3776	Mahogany-LT	900	Burnt Orange-DK
◀	350	Coral-MD	3340	Apricot-MD
△	420	Hazelnut Brown-DK	3011	Khaki Green-DK
✦	610	Drab Brown-DK	433	Brown-MD
6	3340	Apricot-MD	3853	Autumn Gold-DK
☆	350	Coral-MD	3853	Autumn Gold-DK
Y	3776	Mahogany-LT	921	Copper
☼	831	Golden Olive-MD	869	Hazelnut Brown-VY DK
↘	301	Mahogany-MD	680	Old Gold-DK
✧	435	Brown-VY LT	680	Old Gold-DK
§	420	Hazelnut Brown-DK	435	Brown-VY LT
::	435	Brown-VY LT	976	Golden Brown-MD
=	722	Orange Spice-LT	783	Topaz-MD
· ·	3776	Mahogany-LT	976	Golden Brown-MD
⌘	420	Hazelnut Brown-DK	831	Golden Olive-MD
△	722	Orange Spice-LT	976	Golden Brown-MD
Y	356	Terra Cotta-MD	435	Brown-VY LT
8	976	Golden Brown-MD	729	Old Gold-MD
5	729	Old Gold-MD	435	Brown-VY LT
e	356	Terra Cotta-MD	977	Golden Brown-LT
<	834	Golden Olive-VY LT	977	Golden Brown-LT

Copyright ( c ) 2007-, Golden Kite (Golden K.)

Internet: [www.goldenkite.com](http://www.goldenkite.com)

e-mail: [info@goldenkite.com](mailto:info@goldenkite.com)

~	743	Yellow-MD	3827	Golden Brown-Pale
⌘	3827	Golden Brown-Pale	3854	Autumn Gold-MD
⇩	3825	Pumpkin-Pale	743	Yellow-MD
u	743	Yellow-MD	744	Yellow-Pale
δ	744	Yellow-Pale	3825	Pumpkin-Pale
∞	743	Yellow-MD	3854	Autumn Gold-MD
n	744	Yellow-Pale	3854	Autumn Gold-MD
•	722	Orange Spice-LT	3854	Autumn Gold-MD
o	722	Orange Spice-LT	743	Yellow-MD
2	921	Copper	976	Golden Brown-MD
@	301	Mahogany-MD	3829	Old Gold-VY DK
⊙	420	Hazelnut Brown-DK	3829	Old Gold-VY DK
⊕	831	Golden Olive-MD	434	Brown-LT
⊗	632	Desert Sand-UL VY DK	869	Hazelnut Brown-VY DK
↑	977	Golden Brown-LT	743	Yellow-MD
m	356	Terra Cotta-MD	3828	Hazelnut Brown
∅	420	Hazelnut Brown-DK	869	Hazelnut Brown-VY DK
*	975	Golden Brown-DK	869	Hazelnut Brown-VY DK
▨	3685	Mauve-DK	975	Golden Brown-DK
☛	801	Coffee Brown-DK	3781	Mocha Brown-DK
⊕	801	Coffee Brown-DK	830	Golden Olive-DK
⊗	936	Avocado Green-VY DK	433	Brown-MD
↻	420	Hazelnut Brown-DK	3012	Khaki Green-MD
3	356	Terra Cotta-MD	436	Tan
⊕	356	Terra Cotta-MD	3825	Pumpkin-Pale
α	356	Terra Cotta-MD	402	Mahogany-VY LT
♡	402	Mahogany-VY LT	977	Golden Brown-LT
>	3825	Pumpkin-Pale	722	Orange Spice-LT
1	743	Yellow-MD	3855	Autumn Gold-LT
•	370	Mustard-MD	435	Brown-VY LT
⊗	869	Hazelnut Brown-VY DK	610	Drab Brown-DK
♥	838	Beige Brown-VY DK	3857	Rosewood-DK
●	3857	Rosewood-DK	898	Coffee Brown-VY DK
H	610	Drab Brown-DK	3011	Khaki Green-DK
*	347	Salmon-VY DK	900	Burnt Orange-DK
•	347	Salmon-VY DK	350	Coral-MD
†	350	Coral-MD	608	Bright Orange
■	304	Christmas Red-MD	347	Salmon-VY DK
∅	608	Bright Orange	3340	Apricot-MD
●	3857	Rosewood-DK	938	Coffee Brown-UL DK
×	580	Moss Green-DK	611	Drab Brown
↻	610	Drab Brown-DK	640	Beige Gray-VY DK
//	610	Drab Brown-DK	3787	Brown Gray-DK
z	640	Beige Gray-VY DK	3787	Brown Gray-DK
\$	3347	Yellow Green-MD	3787	Brown Gray-DK
♦	3362	Pine Green-DK	3787	Brown Gray-DK
✕	3011	Khaki Green-DK	3787	Brown Gray-DK
●	3781	Mocha Brown-DK	938	Coffee Brown-UL DK
■	838	Beige Brown-VY DK	938	Coffee Brown-UL DK
▣	355	Terra Cotta-DK	975	Golden Brown-DK
▷	402	Mahogany-VY LT	722	Orange Spice-LT
l	3825	Pumpkin-Pale	3854	Autumn Gold-MD
√	977	Golden Brown-LT	420	Hazelnut Brown-DK
+	976	Golden Brown-MD	977	Golden Brown-LT
⌘	347	Salmon-VY DK	3776	Mahogany-LT



This table specifies how much thread of each color is required to stitch this pattern. It is good to know that one complete DMC skein contains 313 inches (795 cm) thread.

DMC	Name	Usage (cm)	Usage (inch)	Usage (cm)	Usage (inch)	Usage (cm)	Usage (inch)
		14		16		18	
221	Shell Pink-VY DK	187	73	178	70	160	62
300	Mahogany-VY DK	24	9	23	9	21	8
301	Mahogany-MD	529	208	503	198	453	178
304	Christmas Red-MD	68	26	65	25	58	22
347	Salmon-VY DK	565	222	538	211	484	190
350	Coral-MD	441	173	420	165	378	148
351	Coral	10	3	9	3	8	3
355	Terra Cotta-DK	366	144	349	137	314	123
356	Terra Cotta-MD	373	146	356	140	320	125
370	Mustard-MD	72	28	68	26	61	24
371	Mustard	35	13	33	12	30	11
400	Mahogany-DK	5	1	4	1	4	1
402	Mahogany-VY LT	115	45	109	42	98	38
420	Hazelnut Brown-DK	1897	746	1806	711	1626	640
433	Brown-MD	1709	672	1627	640	1464	576
434	Brown-LT	532	209	506	199	456	179
435	Brown-VY LT	1069	420	1018	400	916	360
436	Tan	81	31	77	30	70	27
470	Avocado Green-LT	30	11	29	11	26	10
471	Avocado Green-VY LT	11	4	10	3	9	3
580	Moss Green-DK	277	109	263	103	237	93
608	Bright Orange	76	29	73	28	65	25
610	Drab Brown-DK	2220	874	2115	832	1903	749
611	Drab Brown	159	62	151	59	136	53
612	Drab Brown-LT	17	6	16	6	15	5
632	Desert Sand-UL VY DK	775	305	738	290	664	261
640	Beige Gray-VY DK	285	112	272	107	244	96
642	Beige Gray-DK	9	3	9	3	8	3
645	Beaver Gray-VY DK	14	5	13	5	12	4
680	Old Gold-DK	184	72	175	68	158	62
721	Orange Spice-MD	36	14	35	13	31	12
722	Orange Spice-LT	1093	430	1041	409	937	368
729	Old Gold-MD	244	96	232	91	209	82
730	Olive Green-VY DK	28	11	26	10	24	9
734	Olive Green-LT	16	6	16	6	14	5
743	Yellow-MD	868	341	827	325	744	292
744	Yellow-Pale	173	68	165	64	148	58
780	Topaz-UL VY DK	22	8	20	7	18	7
782	Topaz-DK	23	9	22	8	20	7
783	Topaz-MD	69	27	65	25	59	23
801	Coffee Brown-DK	2579	1015	2456	966	2210	870
829	Golden Olive-VY DK	224	88	214	84	192	75
830	Golden Olive-DK	1139	448	1085	427	976	384
831	Golden Olive-MD	220	86	210	82	189	74
832	Golden Olive	19	7	18	7	16	6
834	Golden Olive-VY LT	34	13	32	12	29	11
838	Beige Brown-VY DK	9056	3565	8625	3395	7763	3056
839	Beige Brown-DK	1470	578	1400	551	1260	496
844	Beaver Brown-UL DK	112	44	107	42	96	37
869	Hazelnut Brown-VY DK	1476	581	1406	553	1265	498
898	Coffee Brown-VY DK	982	386	935	368	842	331
900	Burnt Orange-DK	309	121	294	115	265	104
919	Red Copper	49	19	47	18	42	16
920	Copper-MD	126	49	120	47	108	42

Copyright (c) 2007-, Golden Kite (Golden K.)

Internet: [www.goldenkite.com](http://www.goldenkite.com)

e-mail: [info@goldenkite.com](mailto:info@goldenkite.com)

921	Copper	189	74	180	70	162	63
922	Copper-LT	51	20	49	19	44	17
935	Avocado Green-DK	246	96	234	92	211	83
936	Avocado Green-VY DK	1300	511	1238	487	1114	438
938	Coffee Brown-UL DK	7339	2889	6989	2751	6290	2476
975	Golden Brown-DK	415	163	395	155	356	140
976	Golden Brown-MD	774	304	737	290	664	261
977	Golden Brown-LT	849	334	809	318	728	286
3011	Khaki Green-DK	540	212	514	202	463	182
3012	Khaki Green-MD	140	55	134	52	120	47
3021	Brown Gray-VY DK	2802	1103	2669	1050	2402	945
3022	Brown Gray-MD	17	6	16	6	14	5
3031	Mocha Brown-VY DK	2314	911	2204	867	1983	780
3045	Yellow Beige-DK	20	7	19	7	17	6
3051	Green Gray-DK	886	348	844	332	759	298
3052	Green Gray-MD	69	27	66	25	59	23
3328	Salmon-DK	7	2	6	2	6	2
3340	Apricot-MD	141	55	134	52	121	47
3346	Hunter Green	25	9	24	9	22	8
3347	Yellow Green-MD	72	28	68	26	61	24
3362	Pine Green-DK	145	57	138	54	124	48
3685	Mauve-DK	333	131	317	124	285	112
3721	Shell Pink-DK	70	27	67	26	60	23
3772	Desert Sand-VY DK	12	4	11	4	10	3
3776	Mahogany-LT	335	131	319	125	287	112
3777	Terra Cotta-VY DK	63	24	60	23	54	21
3781	Mocha Brown-DK	4654	1832	4432	1744	3989	1570
3787	Brown Gray-DK	531	209	506	199	455	179
3790	Beige Gray-UL DK	23	9	22	8	20	7
3825	Pumpkin-Pale	478	188	455	179	409	161
3826	Golden Brown	53	20	51	20	45	17
3827	Golden Brown-Pale	34	13	33	12	29	11
3828	Hazelnut Brown	61	24	58	22	52	20
3829	Old Gold-VY DK	164	64	157	61	141	55
3830	Terra Cotta-MD	205	80	195	76	175	68
3853	Autumn Gold-DK	39	15	37	14	33	12
3854	Autumn Gold-MD	465	183	443	174	399	157
3855	Autumn Gold-LT	42	16	40	15	36	14
3857	Rosewood-DK	760	299	723	284	651	256
3862	Mocha Beige-DK	35	13	34	13	30	11
3863	Mocha Beige-MD	18	7	18	7	16	6

Extended thread usage table.							
DMC	Name	Usage (cm)	Usage (inch)	Usage (cm)	Usage (inch)	Usage (cm)	Usage (inch)
		10		12		24	
221	Shell Pink-VY DK	288	112	240	93	120	47
300	Mahogany-VY DK	38	14	32	12	16	6
301	Mahogany-MD	815	320	680	267	340	134
304	Christmas Red-MD	104	40	87	33	44	17
347	Salmon-VY DK	871	342	726	285	363	143
350	Coral-MD	680	266	567	222	284	111
351	Coral	14	5	12	5	6	2
355	Terra Cotta-DK	565	221	471	185	236	92
356	Terra Cotta-MD	576	225	480	188	240	94
370	Mustard-MD	110	43	92	36	46	18
371	Mustard	54	20	45	17	23	8



400	Mahogany-DK	7	2	6	2	3	1
402	Mahogany-VY LT	176	68	147	57	74	29
420	Hazelnut Brown-DK	2927	1152	2439	960	1220	480
433	Brown-MD	2635	1037	2196	864	1098	432
434	Brown-LT	821	322	684	269	342	134
435	Brown-VY LT	1649	648	1374	540	687	270
436	Tan	126	49	105	41	53	20
470	Avocado Green-LT	47	18	39	15	20	8
471	Avocado Green-VY LT	16	5	14	5	7	2
580	Moss Green-DK	427	167	356	140	178	70
608	Bright Orange	117	45	98	38	49	19
610	Drab Brown-DK	3425	1348	2855	1124	1427	562
611	Drab Brown	245	95	204	80	102	40
612	Drab Brown-LT	27	9	23	8	11	4
632	Desert Sand-UL VY DK	1195	470	996	392	498	196
640	Beige Gray-VY DK	439	173	366	144	183	72
642	Beige Gray-DK	14	5	12	5	6	2
645	Beaver Gray-VY DK	22	7	18	6	9	3
680	Old Gold-DK	284	112	237	93	119	47
721	Orange Spice-MD	56	22	47	18	23	9
722	Orange Spice-LT	1687	662	1406	552	703	276
729	Old Gold-MD	376	148	314	123	157	62
730	Olive Green-VY DK	43	16	36	14	18	7
734	Olive Green-LT	25	9	21	8	11	4
743	Yellow-MD	1339	526	1116	438	558	219
744	Yellow-Pale	266	104	222	87	111	44
780	Topaz-UL VY DK	32	13	27	11	14	5
782	Topaz-DK	36	13	30	11	15	5
783	Topaz-MD	106	41	89	35	44	17
801	Coffee Brown-DK	3978	1566	3315	1305	1658	653
829	Golden Olive-VY DK	346	135	288	113	144	56
830	Golden Olive-DK	1757	691	1464	576	732	288
831	Golden Olive-MD	340	133	284	111	142	56
832	Golden Olive	29	11	24	9	12	5
834	Golden Olive-VY LT	52	20	44	17	22	8
838	Beige Brown-VY DK	13973	5501	11645	4584	5822	2292
839	Beige Brown-DK	2268	893	1890	744	945	372
844	Beaver Brown-UL DK	173	67	144	56	72	28
869	Hazelnut Brown-VY DK	2277	896	1898	747	949	374
898	Coffee Brown-VY DK	1516	596	1263	497	632	248
900	Burnt Orange-DK	477	187	398	156	199	78
919	Red Copper	76	29	63	24	32	12
920	Copper-MD	194	76	162	63	81	32
921	Copper	292	113	243	95	122	47
922	Copper-LT	79	31	66	26	33	13
935	Avocado Green-DK	380	149	317	125	158	62
936	Avocado Green-VY DK	2005	788	1671	657	836	329
938	Coffee Brown-UL DK	11322	4457	9435	3714	4718	1857
975	Golden Brown-DK	641	252	534	210	267	105
976	Golden Brown-MD	1195	470	996	392	498	196
977	Golden Brown-LT	1310	515	1092	429	546	215
3011	Khaki Green-DK	833	328	695	273	347	137
3012	Khaki Green-MD	216	85	180	71	90	35
3021	Brown Gray-VY DK	4324	1701	3603	1418	1802	709
3022	Brown Gray-MD	25	9	21	8	11	4
3031	Mocha Brown-VY DK	3569	1404	2975	1170	1487	585
3045	Yellow Beige-DK	31	11	26	9	13	5
3051	Green Gray-DK	1366	536	1139	447	569	224
3052	Green Gray-MD	106	41	89	35	44	17

Copyright ( c ) 2007-, Golden Kite (Golden K.)

Internet: [www.goldenkite.com](http://www.goldenkite.com)

e-mail: [info@goldenkite.com](mailto:info@goldenkite.com)

3328	Salmon-DK	11	4	9	3	5	2
3340	Apricot-MD	218	85	182	71	91	35
3346	Hunter Green	40	14	33	12	17	6
3347	Yellow Green-MD	110	43	92	36	46	18
3362	Pine Green-DK	223	86	186	72	93	36
3685	Mauve-DK	513	202	428	168	214	84
3721	Shell Pink-DK	108	41	90	35	45	17
3772	Desert Sand-VY DK	18	5	15	5	8	2
3776	Mahogany-LT	517	202	431	168	215	84
3777	Terra Cotta-VY DK	97	38	81	32	41	16
3781	Mocha Brown-DK	7180	2826	5984	2355	2992	1178
3787	Brown Gray-DK	819	322	683	269	341	134
3790	Beige Gray-UL DK	36	13	30	11	15	5
3825	Pumpkin-Pale	736	290	614	242	307	121
3826	Golden Brown	81	31	68	26	34	13
3827	Golden Brown-Pale	52	20	44	17	22	8
3828	Hazelnut Brown	94	36	78	30	39	15
3829	Old Gold-VY DK	254	99	212	83	106	41
3830	Terra Cotta-MD	315	122	263	102	131	51
3853	Autumn Gold-DK	59	22	50	18	25	9
3854	Autumn Gold-MD	718	283	599	236	299	118
3855	Autumn Gold-LT	65	25	54	21	27	11
3857	Rosewood-DK	1172	461	977	384	488	192
3862	Mocha Beige-DK	54	20	45	17	23	8
3863	Mocha Beige-MD	29	11	24	9	12	5

Extended thread usage table.							
DMC	Name	Usage (cm)	Usage (inch)	Usage (cm)	Usage (inch)	Usage (cm)	Usage (inch)
		25		26		27	
221	Shell Pink-VY DK	115	45	111	43	107	41
300	Mahogany-VY DK	15	6	15	6	14	5
301	Mahogany-MD	326	128	314	123	302	119
304	Christmas Red-MD	42	16	40	15	39	15
347	Salmon-VY DK	348	137	335	132	323	127
350	Coral-MD	272	107	262	102	252	99
351	Coral	6	2	6	2	5	2
355	Terra Cotta-DK	226	89	217	85	209	82
356	Terra Cotta-MD	230	90	222	87	213	83
370	Mustard-MD	44	17	42	17	41	16
371	Mustard	22	8	21	8	20	7
400	Mahogany-DK	3	1	3	1	3	1
402	Mahogany-VY LT	71	27	68	26	65	25
420	Hazelnut Brown-DK	1171	461	1126	443	1084	427
433	Brown-MD	1054	415	1014	399	976	384
434	Brown-LT	328	129	316	124	304	119
435	Brown-VY LT	660	259	634	249	611	240
436	Tan	50	19	48	19	47	18
470	Avocado Green-LT	19	7	18	7	17	7
471	Avocado Green-VY LT	6	2	6	2	6	2
580	Moss Green-DK	171	67	164	64	158	62
608	Bright Orange	47	18	45	17	43	17
610	Drab Brown-DK	1370	539	1317	519	1269	499
611	Drab Brown	98	38	94	37	91	35
612	Drab Brown-LT	11	4	10	3	10	3
632	Desert Sand-UL VY DK	478	188	460	181	443	174
640	Beige Gray-VY DK	176	69	169	66	163	64

642	Beige Gray-DK	6	2	6	2	5	2
645	Beaver Gray-VY DK	9	3	8	3	8	3
680	Old Gold-DK	114	45	109	43	105	41
721	Orange Spice-MD	22	9	21	8	21	8
722	Orange Spice-LT	675	265	649	255	625	245
729	Old Gold-MD	150	59	145	57	139	55
730	Olive Green-VY DK	17	6	17	6	16	6
734	Olive Green-LT	10	4	10	3	9	3
743	Yellow-MD	536	210	515	202	496	195
744	Yellow-Pale	107	42	102	40	99	39
780	Topaz-UL VY DK	13	5	12	5	12	5
782	Topaz-DK	14	5	14	5	13	5
783	Topaz-MD	42	17	41	16	39	15
801	Coffee Brown-DK	1591	626	1530	602	1473	580
829	Golden Olive-VY DK	138	54	133	52	128	50
830	Golden Olive-DK	703	276	676	266	651	256
831	Golden Olive-MD	136	53	131	51	126	49
832	Golden Olive	12	4	11	4	11	4
834	Golden Olive-VY LT	21	8	20	8	19	7
838	Beige Brown-VY DK	5589	2200	5374	2116	5175	2037
839	Beige Brown-DK	907	357	872	343	840	331
844	Beaver Brown-UL DK	69	27	66	26	64	25
869	Hazelnut Brown-VY DK	911	359	876	345	843	332
898	Coffee Brown-VY DK	606	238	583	229	561	221
900	Burnt Orange-DK	191	75	183	72	177	69
919	Red Copper	30	12	29	11	28	11
920	Copper-MD	78	30	75	29	72	28
921	Copper	117	45	112	44	108	42
922	Copper-LT	32	12	30	12	29	11
935	Avocado Green-DK	152	60	146	57	141	55
936	Avocado Green-VY DK	802	315	771	303	743	292
938	Coffee Brown-UL DK	4529	1783	4355	1714	4193	1651
975	Golden Brown-DK	256	101	246	97	237	93
976	Golden Brown-MD	478	188	460	181	443	174
977	Golden Brown-LT	524	206	504	198	485	191
3011	Khaki Green-DK	333	131	321	126	309	121
3012	Khaki Green-MD	86	34	83	33	80	31
3021	Brown Gray-VY DK	1729	680	1663	654	1601	630
3022	Brown Gray-MD	10	4	10	3	9	3
3031	Mocha Brown-VY DK	1428	562	1373	540	1322	520
3045	Yellow Beige-DK	12	4	12	4	11	4
3051	Green Gray-DK	546	215	525	206	506	199
3052	Green Gray-MD	42	17	41	16	39	15
3328	Salmon-DK	4	1	4	1	4	1
3340	Apricot-MD	87	34	84	33	81	31
3346	Hunter Green	16	6	15	6	15	5
3347	Yellow Green-MD	44	17	42	17	41	16
3362	Pine Green-DK	89	35	86	33	83	32
3685	Mauve-DK	205	81	197	78	190	75
3721	Shell Pink-DK	43	17	42	16	40	15
3772	Desert Sand-VY DK	7	2	7	2	7	2
3776	Mahogany-LT	207	81	199	78	191	75
3777	Terra Cotta-VY DK	39	15	37	15	36	14
3781	Mocha Brown-DK	2872	1130	2762	1087	2659	1047
3787	Brown Gray-DK	328	129	315	124	303	119
3790	Beige Gray-UL DK	14	5	14	5	13	5
3825	Pumpkin-Pale	294	116	283	111	273	107
3826	Golden Brown	32	12	31	12	30	11
3827	Golden Brown-Pale	21	8	20	8	19	7

Copyright ( c ) 2007-, Golden Kite (Golden K.)

Internet: [www.goldenkite.com](http://www.goldenkite.com)

e-mail: [info@goldenkite.com](mailto:info@goldenkite.com)

3828	Hazelnut Brown	37	14	36	14	35	13
3829	Old Gold-VY DK	102	40	98	38	94	37
3830	Terra Cotta-MD	126	49	121	47	117	45
3853	Autumn Gold-DK	24	9	23	8	22	8
3854	Autumn Gold-MD	287	113	276	109	266	105
3855	Autumn Gold-LT	26	10	25	10	24	9
3857	Rosewood-DK	469	184	451	177	434	171
3862	Mocha Beige-DK	22	8	21	8	20	7
3863	Mocha Beige-MD	12	4	11	4	11	4

Extended thread usage table.							
DMC	Name	Usage (cm)	Usage (inch)	Usage (cm)	Usage (inch)	Usage (cm)	Usage (inch)
		28		30		32	
221	Shell Pink-VY DK	103	40	96	37	90	35
300	Mahogany-VY DK	14	5	13	5	12	5
301	Mahogany-MD	291	114	272	107	255	100
304	Christmas Red-MD	37	14	35	13	33	12
347	Salmon-VY DK	311	122	290	114	272	107
350	Coral-MD	243	95	227	89	213	83
351	Coral	5	2	5	2	5	2
355	Terra Cotta-DK	202	79	188	74	177	69
356	Terra Cotta-MD	206	80	192	75	180	70
370	Mustard-MD	39	15	37	14	34	14
371	Mustard	19	7	18	7	17	6
400	Mahogany-DK	3	1	2	1	2	1
402	Mahogany-VY LT	63	24	59	23	55	21
420	Hazelnut Brown-DK	1045	411	976	384	915	360
433	Brown-MD	941	370	878	346	824	324
434	Brown-LT	293	115	274	107	257	101
435	Brown-VY LT	589	231	550	216	515	203
436	Tan	45	17	42	16	39	15
470	Avocado Green-LT	17	6	16	6	15	6
471	Avocado Green-VY LT	6	2	5	2	5	2
580	Moss Green-DK	152	60	142	56	133	52
608	Bright Orange	42	16	39	15	37	14
610	Drab Brown-DK	1223	482	1142	449	1070	421
611	Drab Brown	87	34	82	32	77	30
612	Drab Brown-LT	10	3	9	3	8	3
632	Desert Sand-UL VY DK	427	168	398	157	374	147
640	Beige Gray-VY DK	157	62	146	58	137	54
642	Beige Gray-DK	5	2	5	2	5	2
645	Beaver Gray-VY DK	8	3	7	2	7	2
680	Old Gold-DK	102	40	95	37	89	35
721	Orange Spice-MD	20	8	19	7	17	7
722	Orange Spice-LT	602	237	562	221	527	207
729	Old Gold-MD	134	53	125	49	118	46
730	Olive Green-VY DK	15	6	14	5	14	5
734	Olive Green-LT	9	3	8	3	8	3
743	Yellow-MD	478	188	446	175	419	164
744	Yellow-Pale	95	37	89	35	83	33
780	Topaz-UL VY DK	12	5	11	4	10	4
782	Topaz-DK	13	5	12	4	11	4
783	Topaz-MD	38	15	35	14	33	13
801	Coffee Brown-DK	1421	559	1326	522	1243	489
829	Golden Olive-VY DK	123	48	115	45	108	42
830	Golden Olive-DK	627	247	586	230	549	216
831	Golden Olive-MD	122	48	113	44	106	42

Copyright ( c ) 2007-, Golden Kite (Golden K.)

Internet: [www.goldenkite.com](http://www.goldenkite.com)

e-mail: [info@goldenkite.com](mailto:info@goldenkite.com)

832	Golden Olive	10	4	10	4	9	3
834	Golden Olive-VY LT	19	7	17	7	16	6
838	Beige Brown-VY DK	4991	1965	4658	1834	4367	1719
839	Beige Brown-DK	810	319	756	298	709	279
844	Beaver Brown-UL DK	62	24	58	22	54	21
869	Hazelnut Brown-VY DK	813	320	759	299	712	280
898	Coffee Brown-VY DK	541	213	505	199	474	186
900	Burnt Orange-DK	170	67	159	62	149	59
919	Red Copper	27	10	25	10	24	9
920	Copper-MD	69	27	65	25	61	24
921	Copper	104	41	97	38	91	35
922	Copper-LT	28	11	26	10	25	10
935	Avocado Green-DK	136	53	127	50	119	47
936	Avocado Green-VY DK	716	282	668	263	627	246
938	Coffee Brown-UL DK	4044	1592	3774	1486	3538	1393
975	Golden Brown-DK	229	90	214	84	200	79
976	Golden Brown-MD	427	168	398	157	374	147
977	Golden Brown-LT	468	184	437	172	410	161
3011	Khaki Green-DK	298	117	278	109	260	102
3012	Khaki Green-MD	77	30	72	28	68	26
3021	Brown Gray-VY DK	1544	608	1441	567	1351	532
3022	Brown Gray-MD	9	3	8	3	8	3
3031	Mocha Brown-VY DK	1275	501	1190	468	1115	439
3045	Yellow Beige-DK	11	4	10	4	10	3
3051	Green Gray-DK	488	192	455	179	427	168
3052	Green Gray-MD	38	15	35	14	33	13
3328	Salmon-DK	4	1	4	1	3	1
3340	Apricot-MD	78	30	73	28	68	26
3346	Hunter Green	14	5	13	5	12	5
3347	Yellow Green-MD	39	15	37	14	34	14
3362	Pine Green-DK	80	31	74	29	70	27
3685	Mauve-DK	183	72	171	67	160	63
3721	Shell Pink-DK	39	15	36	14	34	13
3772	Desert Sand-VY DK	6	2	6	2	6	2
3776	Mahogany-LT	185	72	172	67	161	63
3777	Terra Cotta-VY DK	35	14	32	13	30	12
3781	Mocha Brown-DK	2564	1009	2393	942	2244	883
3787	Brown Gray-DK	293	115	273	107	256	101
3790	Beige Gray-UL DK	13	5	12	4	11	4
3825	Pumpkin-Pale	263	104	245	97	230	91
3826	Golden Brown	29	11	27	10	25	10
3827	Golden Brown-Pale	19	7	17	7	16	6
3828	Hazelnut Brown	33	13	31	12	29	11
3829	Old Gold-VY DK	91	35	85	33	79	31
3830	Terra Cotta-MD	113	44	105	41	98	38
3853	Autumn Gold-DK	21	8	20	7	19	7
3854	Autumn Gold-MD	257	101	239	94	224	88
3855	Autumn Gold-LT	23	9	22	8	20	8
3857	Rosewood-DK	419	165	391	154	366	144
3862	Mocha Beige-DK	19	7	18	7	17	6
3863	Mocha Beige-MD	10	4	10	4	9	3

	10	20	30	40	50
10					
20					
30					
40					
50					
60					
70					
80					



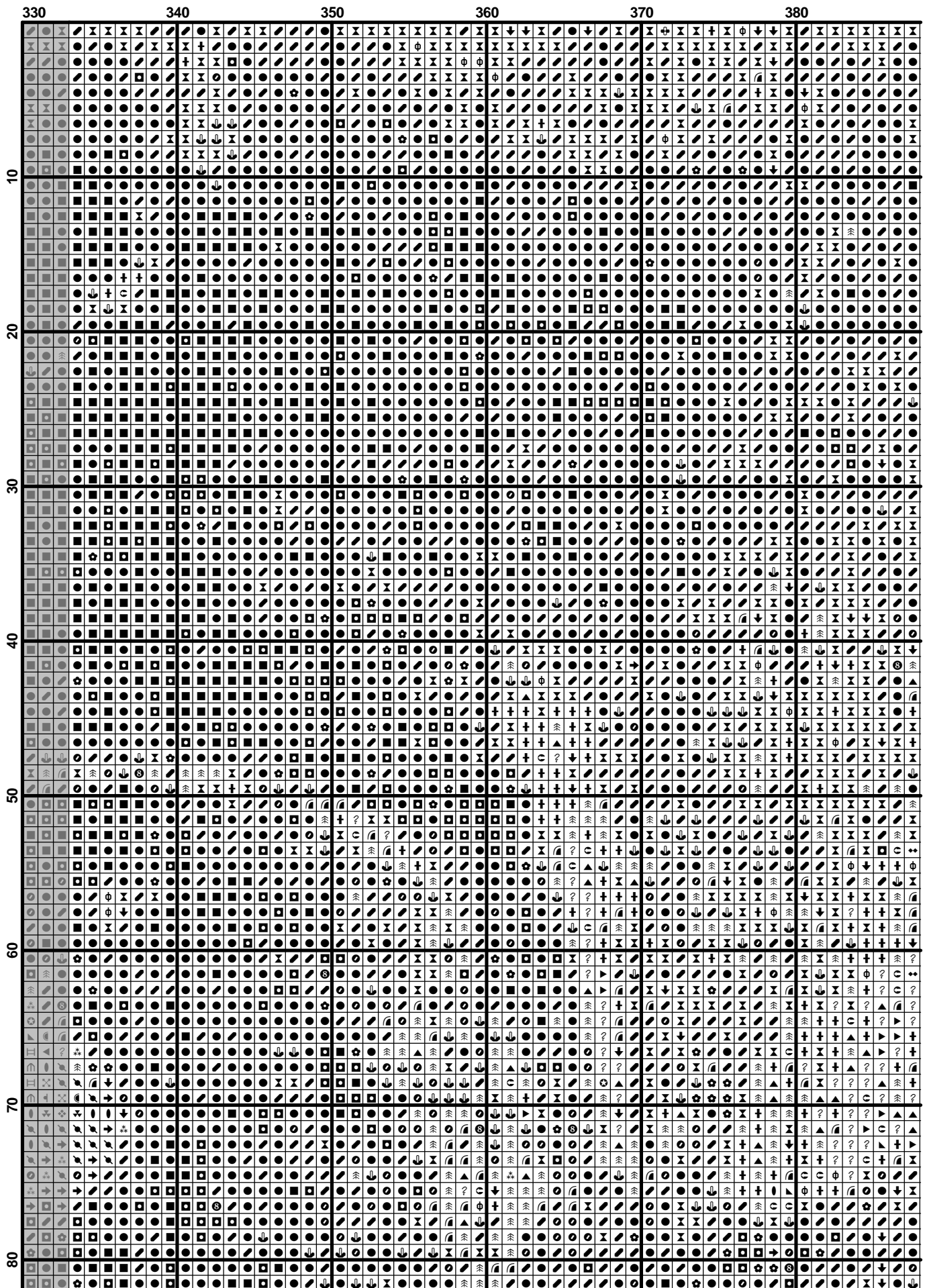
	60	70	80	90	100	110
10						
20						
30						
40						
50						
60						
70						
80						

	110	120	130	140	150	160
10						
20						
30						
40						
50						
60						
70						
80						

	170	180	190	200	210	220
10	...	...	...	...	...	...
20	...	...	...	...	...	...
30	...	...	...	...	...	...
40	...	...	...	...	...	...
50	...	...	...	...	...	...
60	...	...	...	...	...	...
70	...	...	...	...	...	...
80	...	...	...	...	...	...

	220	230	240	250	260	270
10						
20						
30						
40						
50						
60						
70						
80						

	280	290	300	310	320	330
10						
20						
30						
40						
50						
60						
70						
80						





(16)

	10	20	30	40	50
80	→	→	→	→	→
90	→	→	→	→	→
100	→	→	→	→	→
110	→	→	→	→	→
120	→	→	→	→	→
130	→	→	→	→	→
140	→	→	→	→	→
150	→	→	→	→	→
160	→	→	→	→	→

	60	70	80	90	100	110
80						
90						
100						
110						
120						
130						
140						
150						
160						

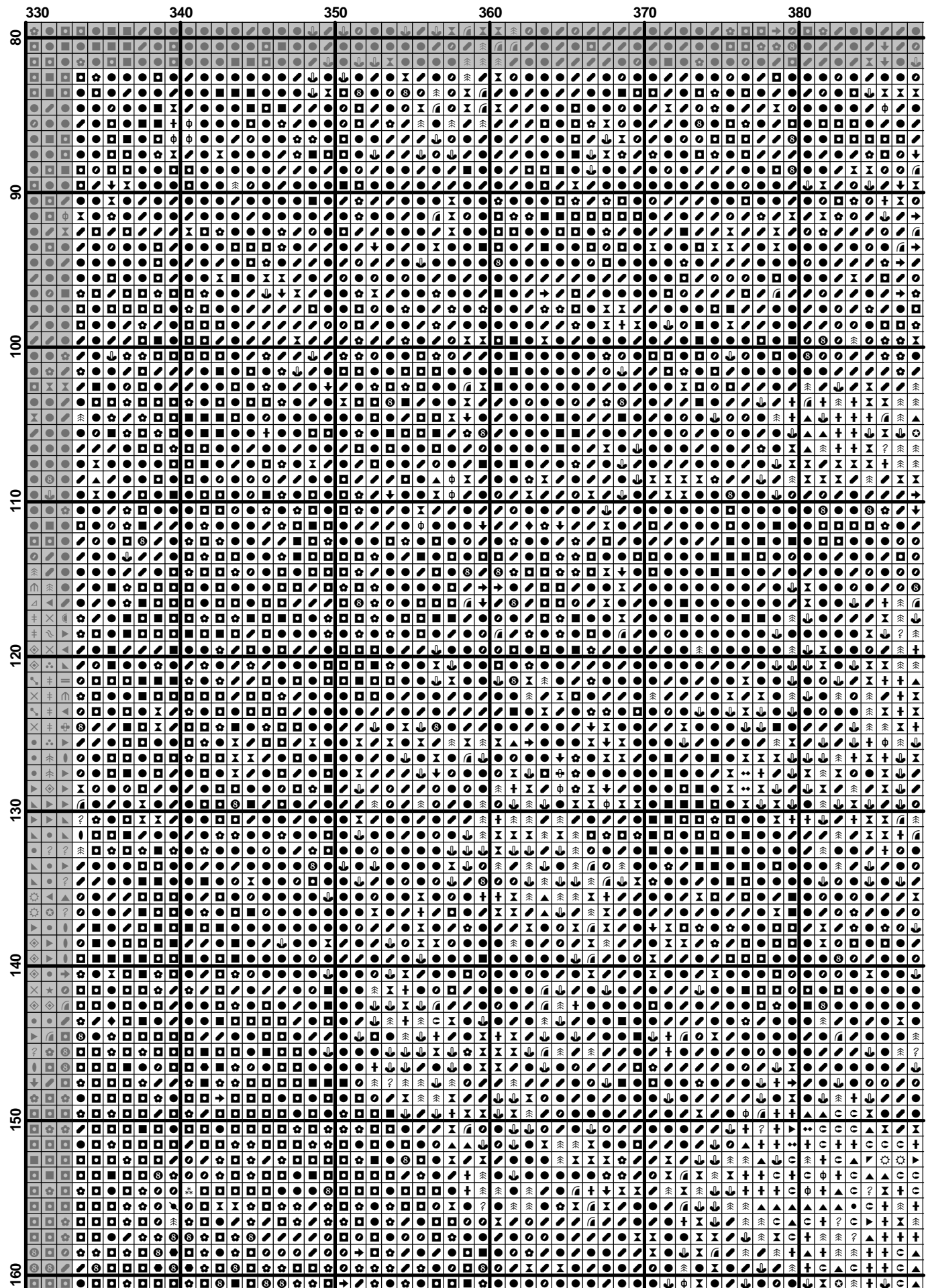
	110	120	130	140	150	160
80						
90						
100						
110						
120						
130						
140						
150						
160						

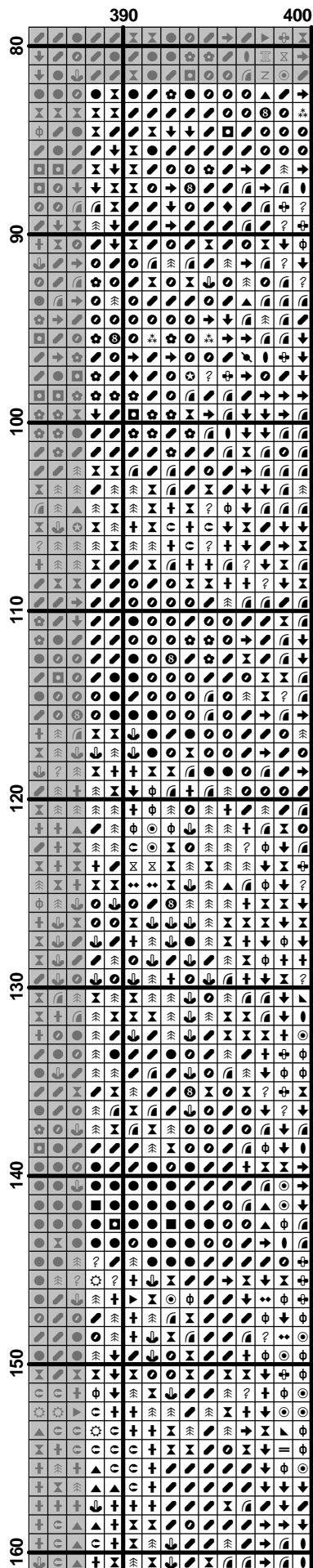
[illegible]

(22)



	280	290	300	310	320	330
80						
90						
100						
110						
120						
130						
140						
150						
160						





	10	20	30	40	50
160	...	...	...	...	...
170	...	...	...	...	...
180	...	...	...	...	...
190	...	...	...	...	...
200	...	...	...	...	...
210	...	...	...	...	...
220	...	...	...	...	...
230	...	...	...	...	...
240	...	...	...	...	...

	60															70															80															90															100															110																																																																										
160																																																																																																																																																						
170																																																																																																																																																						
180																																																																																																																																																						
190																																																																																																																																																						
200																																																																																																																																																						
210																																																																																																																																																						
220																																																																																																																																																						
230																																																																																																																																																						
240																																																																																																																																																						

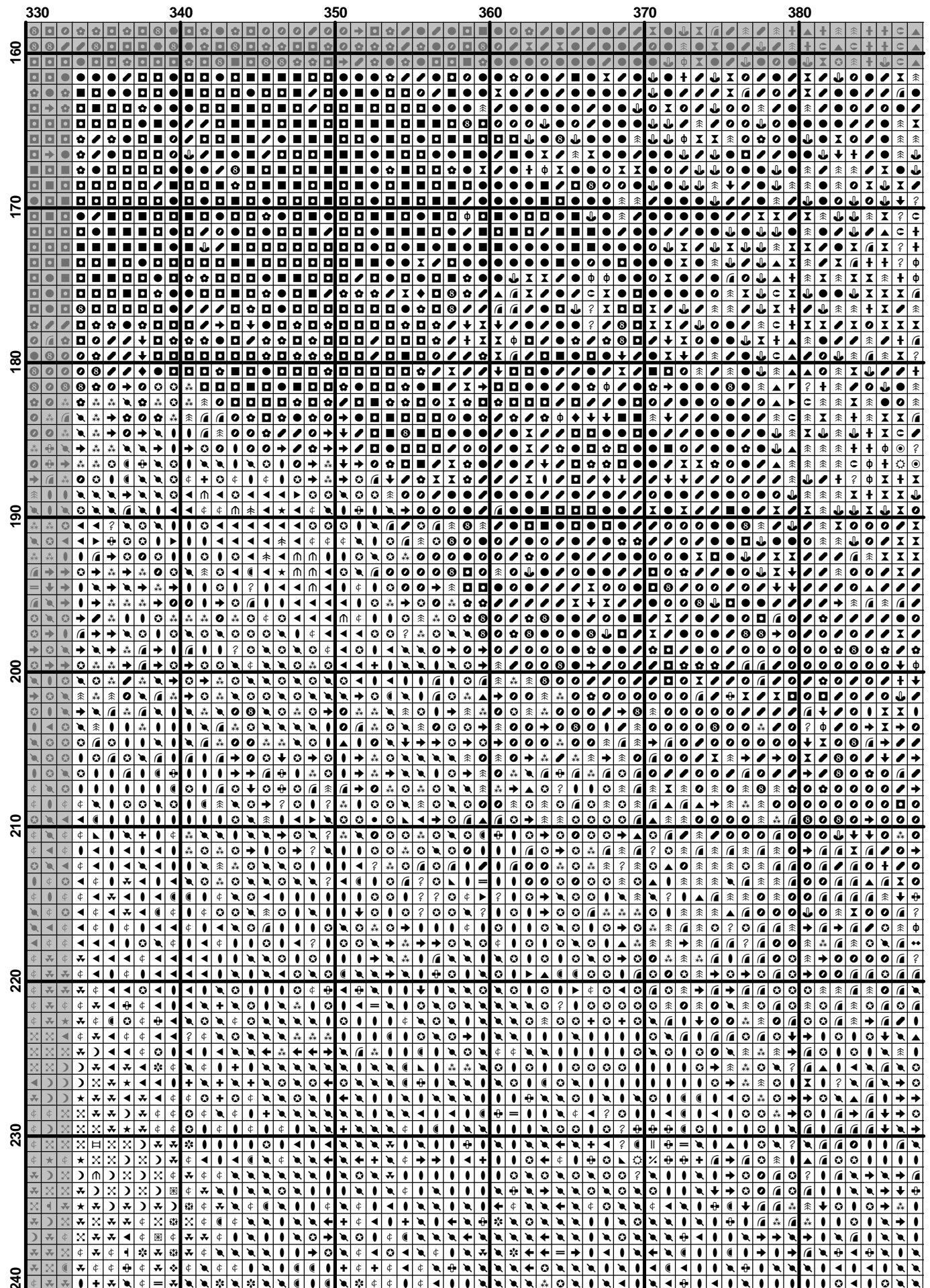
$$(27) \quad \mathcal{L}(\mathcal{A}) = \mathcal{L}(\mathcal{B}) \quad (28)$$

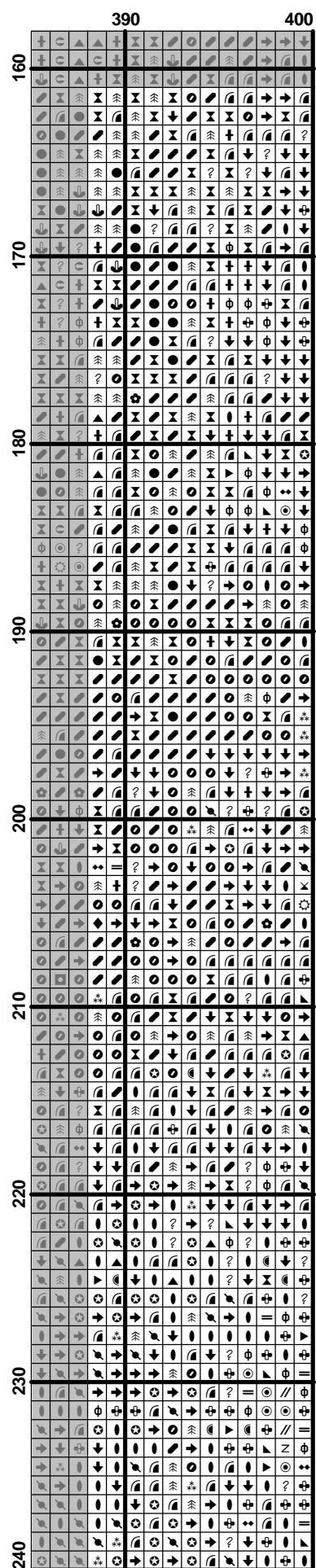


	170	180	190	200	210	220
160	( 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096 1097 1098 1099 1100 1101 1102 1103 1104 1105 1106 1107 1108 1109 1110 1111 1112 1113 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123 1124 1125 1126 1127 1128 1129 1130 1131 1132 1133 1134 1135 1136 1137 1138 1139 1140 1141 1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154 1155 1156 1157 1158 1159 1160 1161 1162 1163 1164 1165 1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186 1187 1188 1189 1190 1191 1192 1193 1194 1195 1196 1197 1198 1199 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 1211 1212 1213 1214 1215 1216 1217 1218 1219 1220 1221 1222 1223 1224 1225 1226 1227 1228 1229 1230 1231 1232 1233 1234 1235 1236 1237 1238 1239 1240 1241 1242 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252 1253 1254 1255 1256 1257 1258 1259 1260 1261 1262 1263 1264 1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1309 1310 1311 1312 1313 1314 1315 1316 1317 1318 1319 1320 1321 1322 1323 1324 1325 1326 1327 1328 1329 1330 1331 1332 1333 1334 1335 1336 1337 1338 1339 1340 1341 1342 1343 1344 1345 1346 1347 1348 1349 1350 1351 1352 1353 1354 1355 1356 1357 1358 1359 1360 1361 1362 1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375 1376 1377 1378 1379 1380 1381 1382 1383 1384 1385 1386 1387 1388 1389 1390 1391 1392 1393 1394 1395 1396 1397 1398 1399 1400 1401 1402 1403 1404 1405 1406 1407 1408 1409 1410 1411 1412 1413 1414 1415 1416 1417 1418 1419 1420 1421 1422 1423 1424 1425 1426 1427 1428 1429 1430 1431 1432 1433 1434 1435 1436 1437 1438 1439 1440 1441 1442 1443 1444 1445 1446 1447 1448 1449 1450 1451 1452 1453 1454 1455 1456 1457 1458 1459 1460 1461 1462 1463 1464 1465 1466 1467 1468 1469 1470 1471 1472 1473 1474 1475 1476 1477 1478 1479 1480 1481 1482 1483 1484 1485 1486 1487 1488 1489 1490 1491 1492 1493 1494 1495 1496 1497 1498 1499 1500 1501 1502 1503 1504 1505 1506 1507 1508 1509 1510 1511 1512 1513 1514 1515 1516 1517 1518 1519 1520 1521 1522 1523 1524 1525 1526 1527 1528 1529 1530 1531 1532 1533 1534 1535 1536 1537 1538 1539 1540 1541 1542 1543 1544 1545 1546 1547 1548 1549 1550 1551 1552 1553 1554 1555 1556 1557 1558 1559 1560 1561 1562 1563 1564 1565 1566 1567 1568 1569 1570 1571 1572 1573 1574 1575 1576 1577 1578 1579 1580 1581 1582 1583 1584 1585 1586 1587 1588 1589 1590 1591 1592 1593 1594 1595 1596 1597 1598 1599 1600 1601 1602 1603 1604 1605 1606 1607 1608 1609 1610 1611 1612 1613 1614 1615 1616 1617 1618 1619 1620 1621 1622 1623 1624 1625 1626 1627 1628 1629 1630 1631 1632 1633 1634 1635 1636 1637 1638 1639 1640 1641 1642 1643 1644 1645 1646 1647 1648 1649 1650 1651 1652 1653 1654 1655 1656 1657 1658 1659 1660 1661 1662 1663 1664 1665 1666 1667 1668 1669 1670 1671 1672 1673 1674 1675 1676 1677 1678 1679 1680 1681 1682 1683 1684 1685 1686 1687 1688 1689 1690 1691 1692 1693 1694 1695 1696 1697 1698 1699 1700 1701 1702 1703 1704 1705 1706 1707 1708 1709 1710 1711 1712 1713 1714 1715 1716 1717 1718 1719 1720 1721 1722 1723 1724 1725 1726 1727 1728 1729 1730 1731 1732 1733 1734 1735 1736 1737 1738 1739 1740 1741 1742 1743 1744 1745 1746 1747 1748 1749 1750 1751 1752 1753 1754 1755 1756 1757 1758 1759 1760 1761 1762 1763 1764 1765 1766 1767 1768 1769 1770 1771 1772 1773 1774 1775 1776 1777 1778 1779 1780 1781 1782 1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799 1800 1801 1802 1803 1804 1805 1806 1807 1808 1809 1810 1811 1812 1813 1814 1815 1816 1817 1818 1819 1820 1821 1822 1823 1824 1825 1826 1827 1828 1829 1830 1831 1832 1833 1834 1835 1836 1837 1838 1839 1840 1841 1842 1843 1844 1845 1846 1847 1848 1849 1850 1851 1852 1853 1854 1855 1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 266					

	220	230	240	250	260	270
160						
170						
180						
190						
200						
210						
220						
230						
240						

	280	290	300	310	320	330
160	...	...	...	...	...	...
170	...	...	...	...	...	...
180	...	...	...	...	...	...
190	...	...	...	...	...	...
200	...	...	...	...	...	...
210	...	...	...	...	...	...
220	...	...	...	...	...	...
230	...	...	...	...	...	...
240	...	...	...	...	...	...





	10										20										30										40										50									
240																																																		
250																																																		
260																																																		
270																																																		
280																																																		
290																																																		
300																																																		
310																																																		

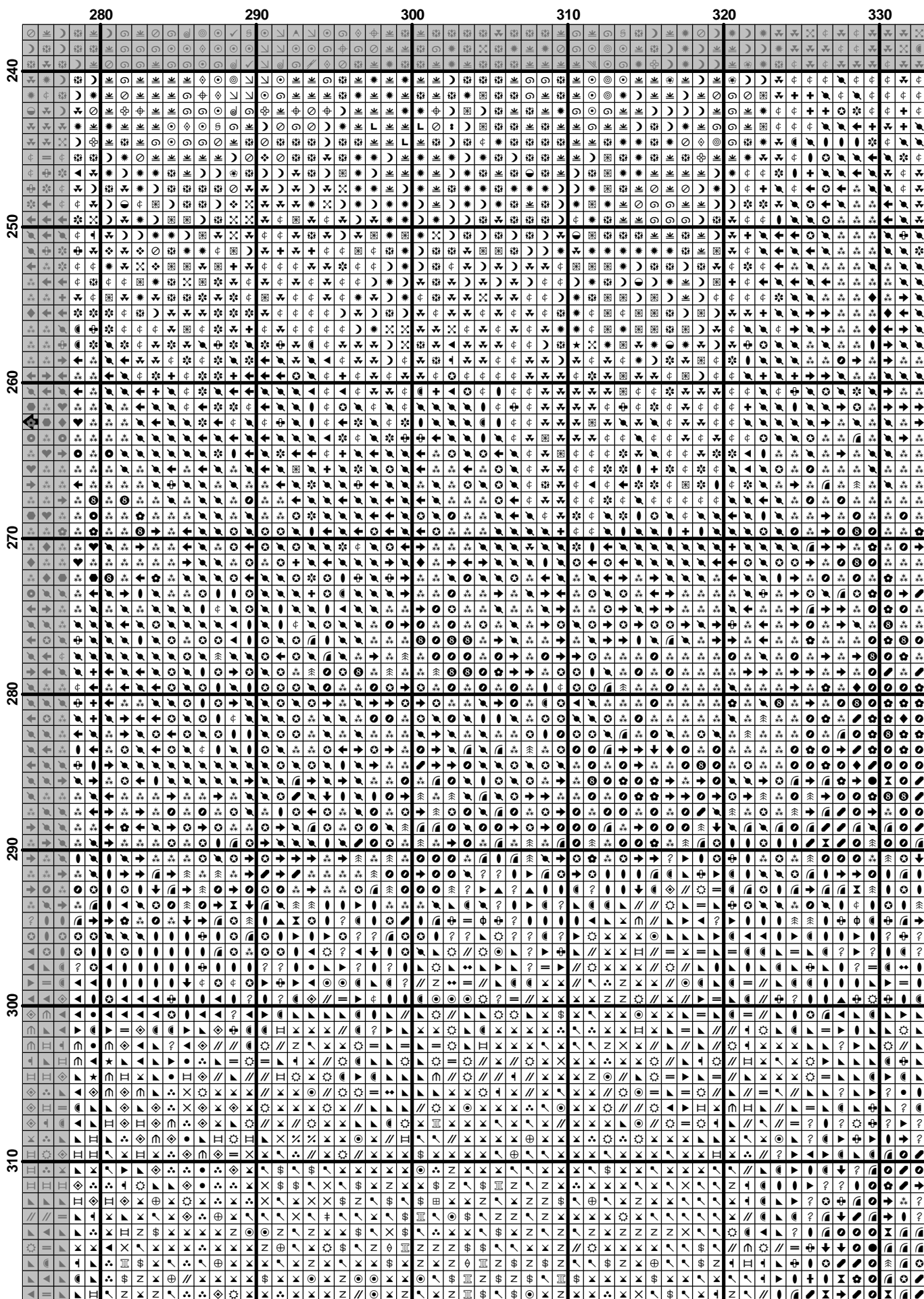
	60	70	80	90	100	110
240						
250						
260						
270						
280						
290						
300						
310						

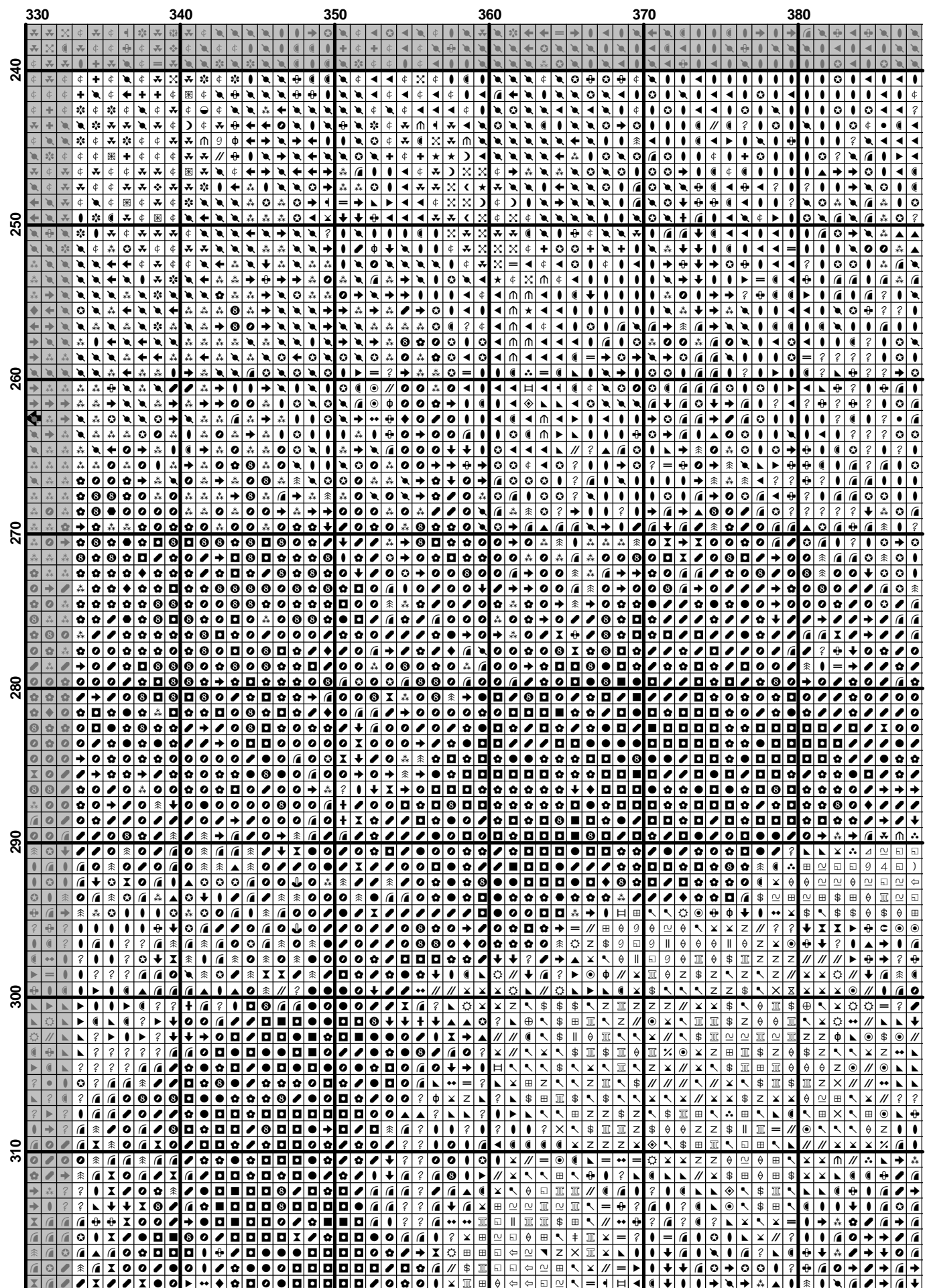
	110	120	130	140	150	160
240						
250						
260						
270						
280						
290						
300						
310						

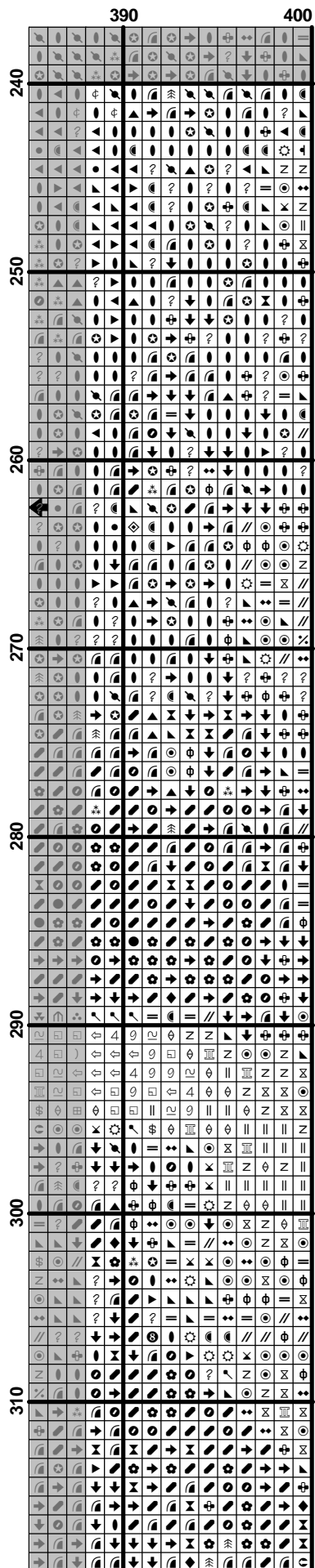


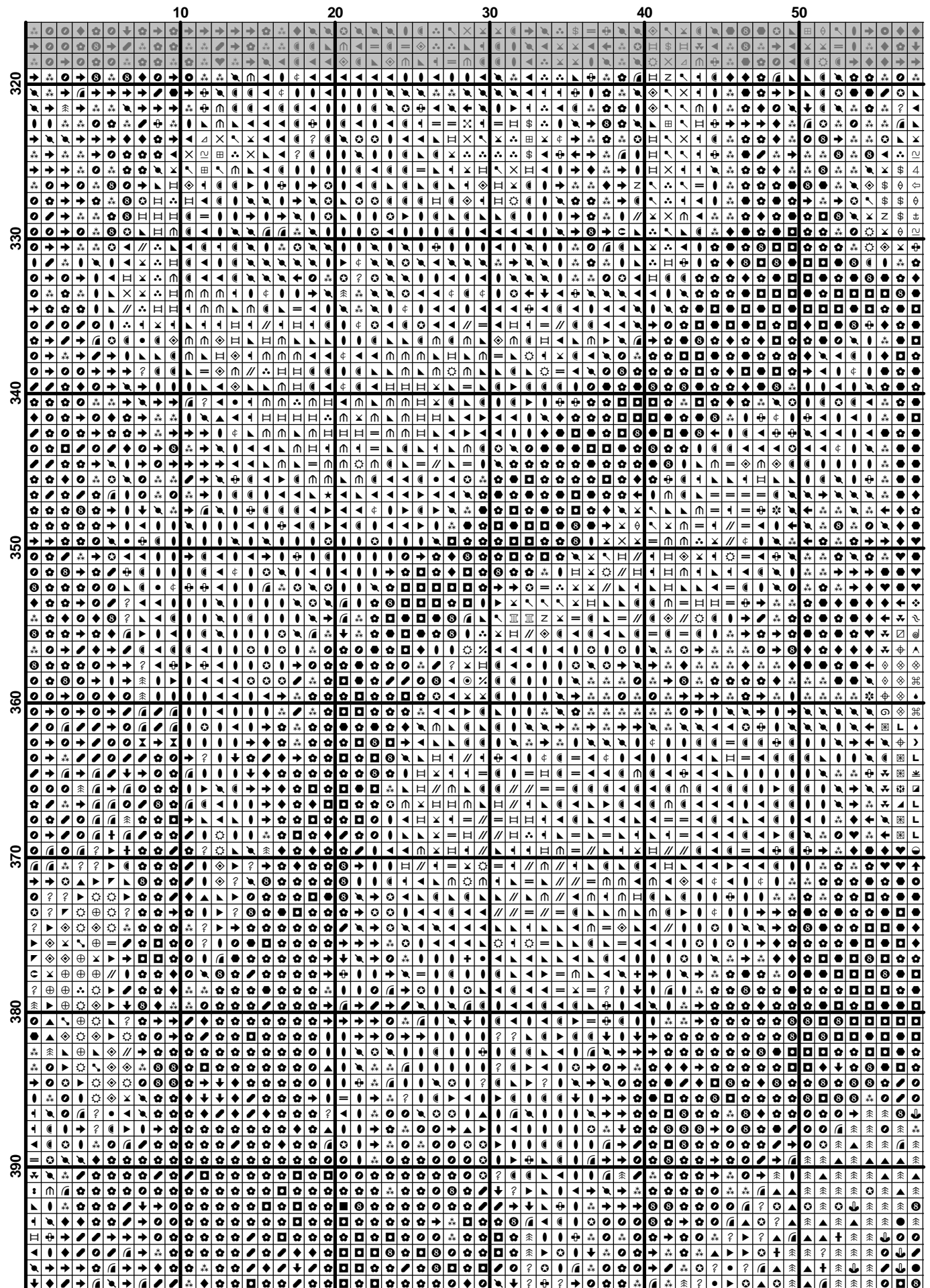
(37)

	220	230	240	250	260	270
240						
250						
260						
270						
280						
290						
300						
310						





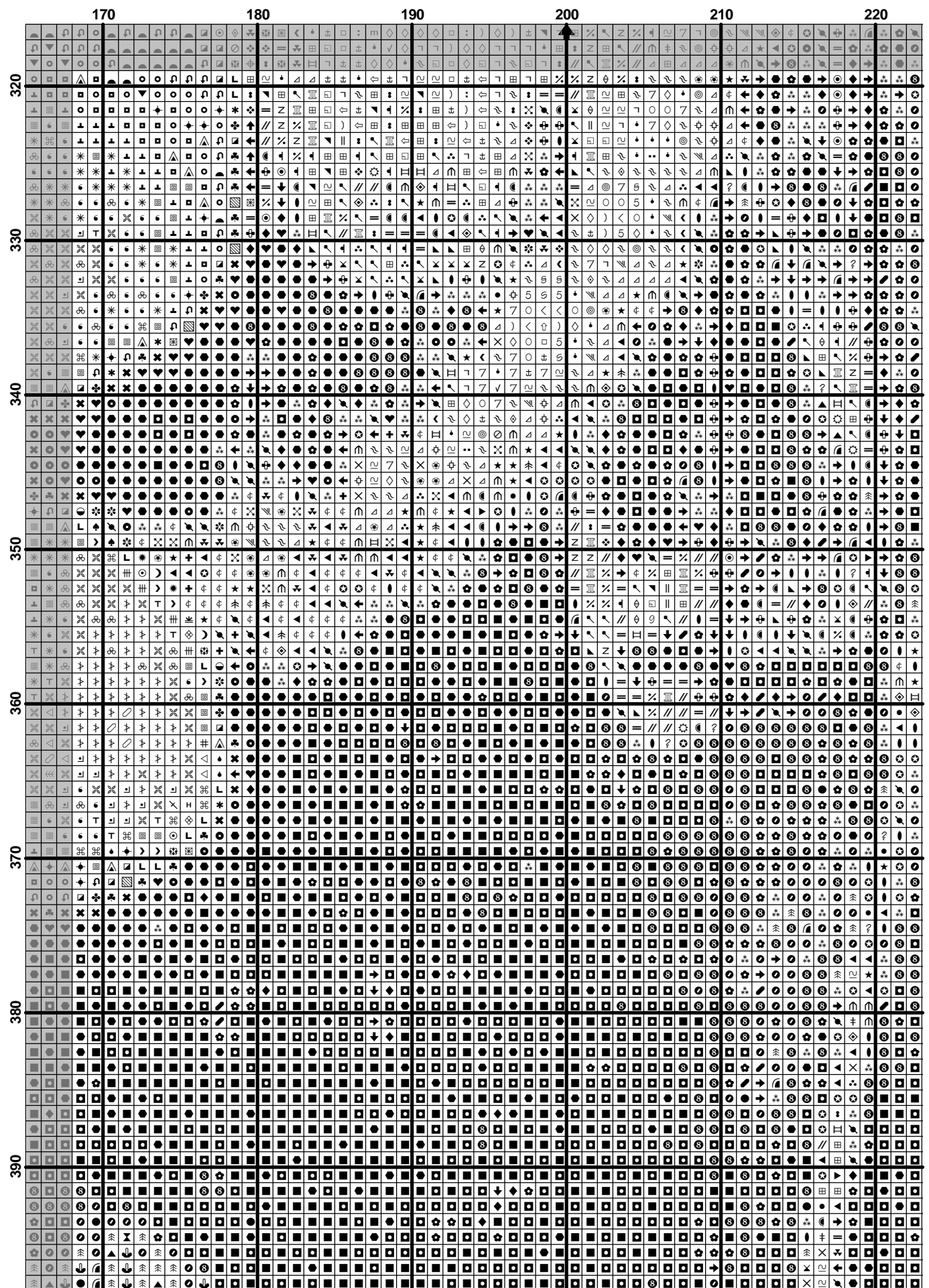


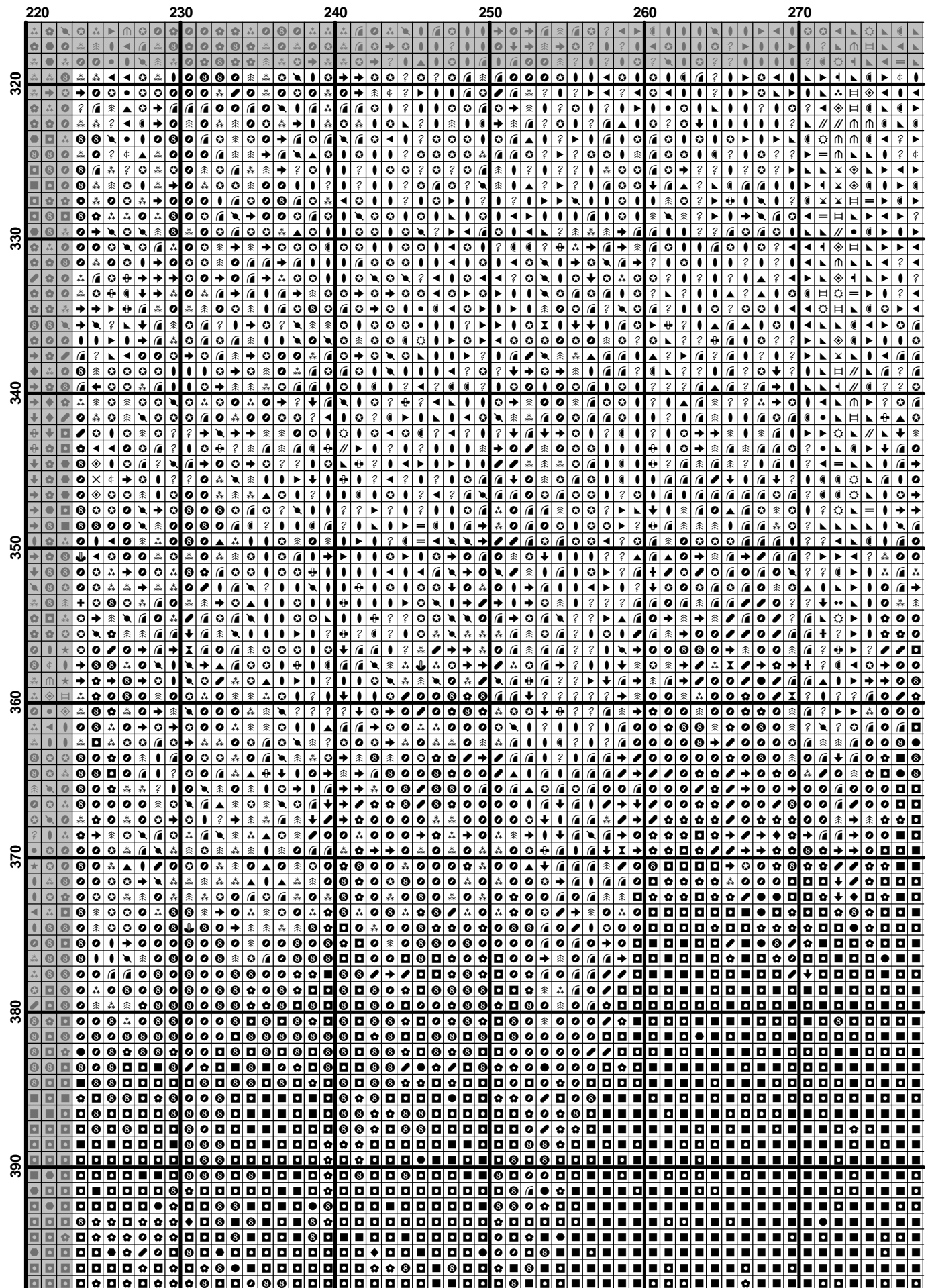


	60	70	80	90	100	110
320	...	...	...	...	...	...
330	...	...	...	...	...	...
340	...	...	...	...	...	...
350	...	...	...	...	...	...
360	...	...	...	...	...	...
370	...	...	...	...	...	...
380	...	...	...	...	...	...
390	...	...	...	...	...	...

	110	120	130	140	150	160
320						
330						
340						
350						
360						
370						
380						
390						

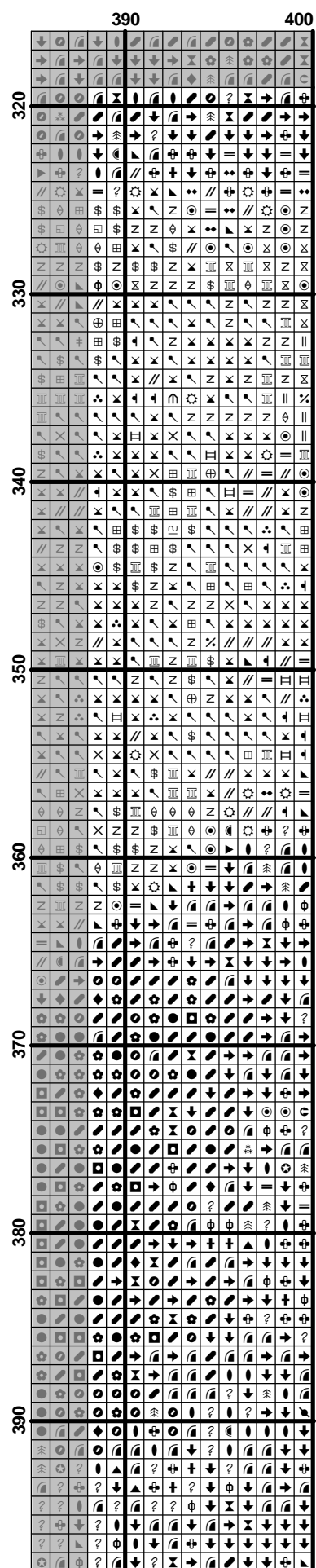


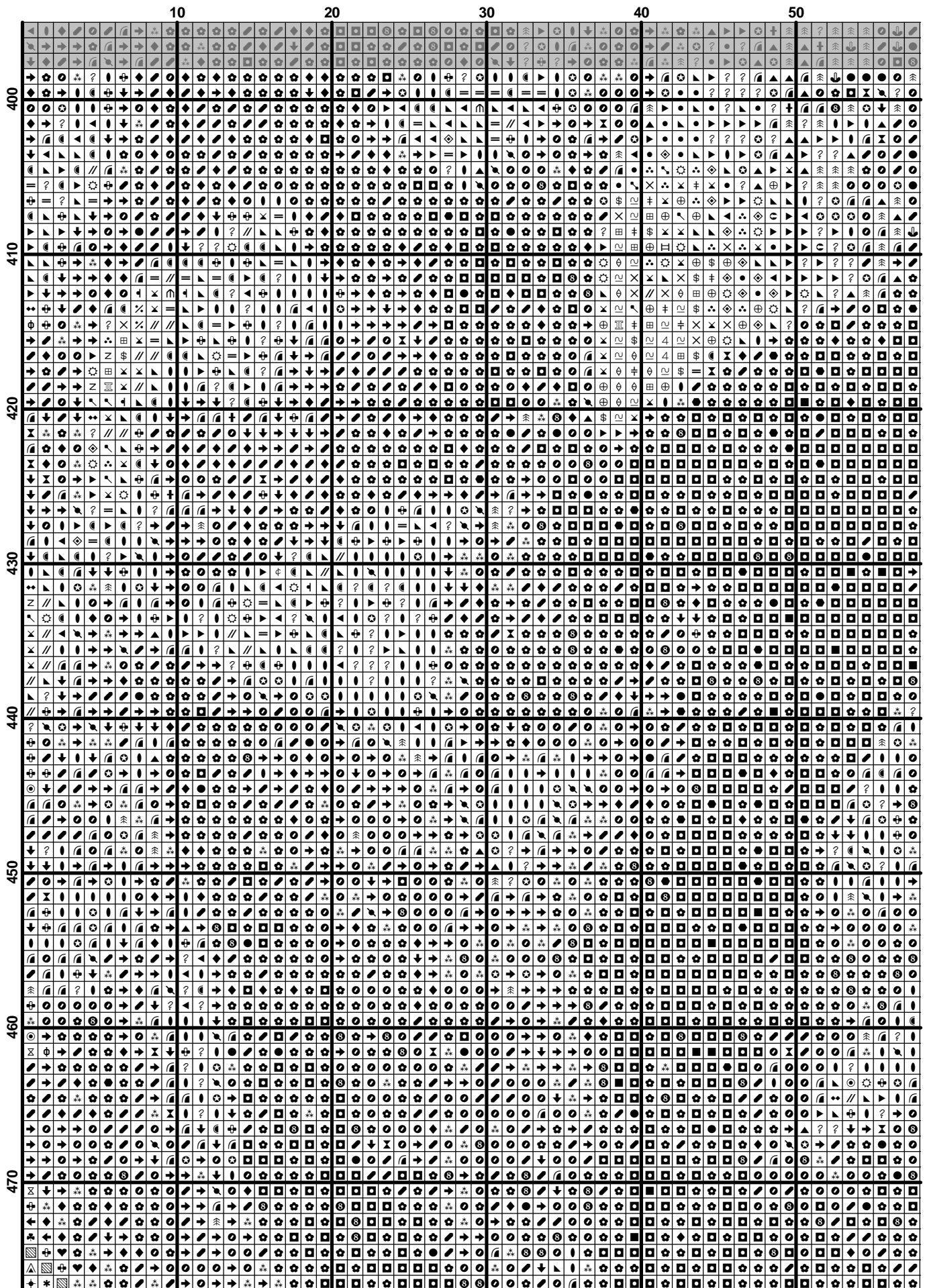


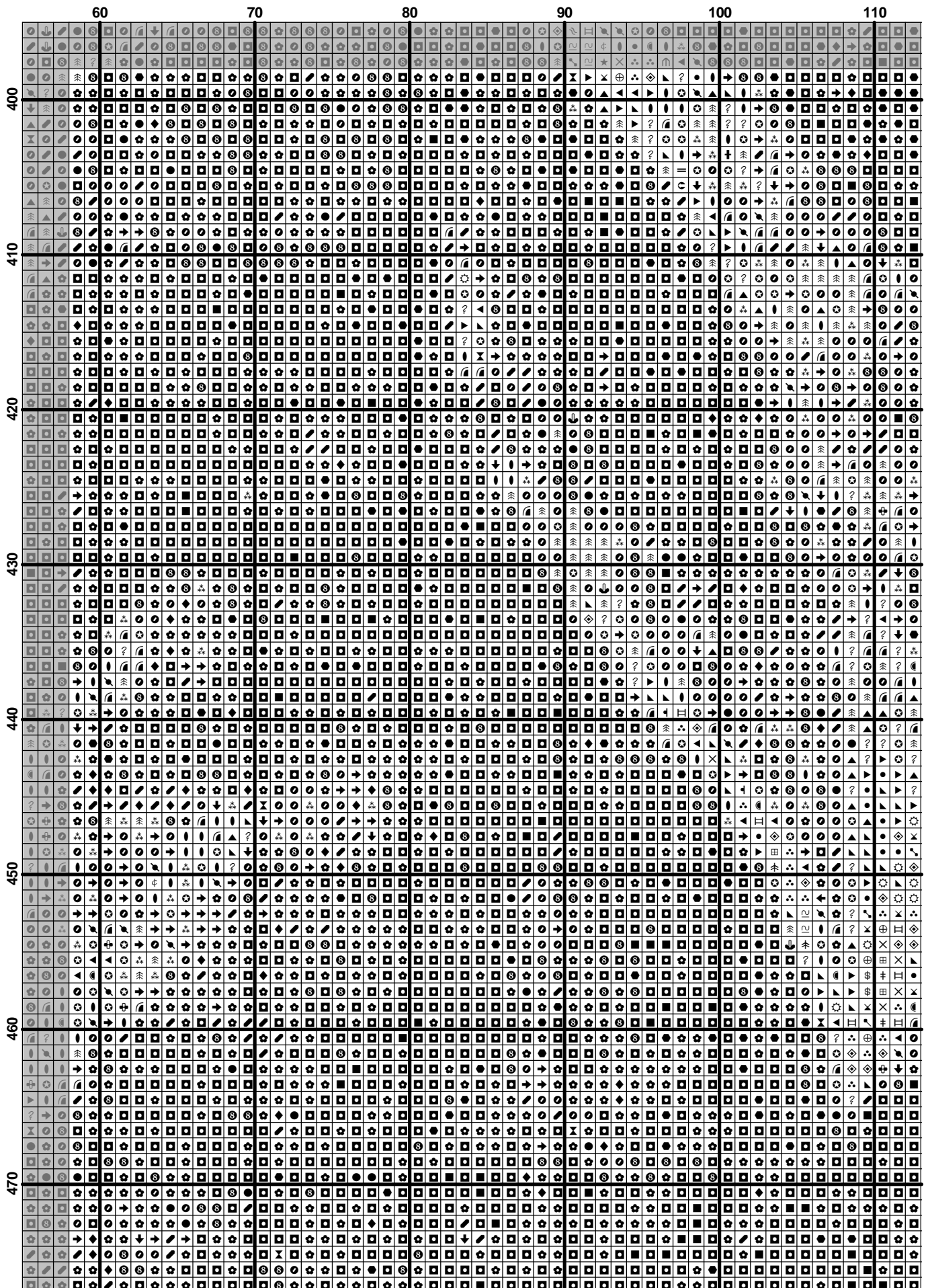


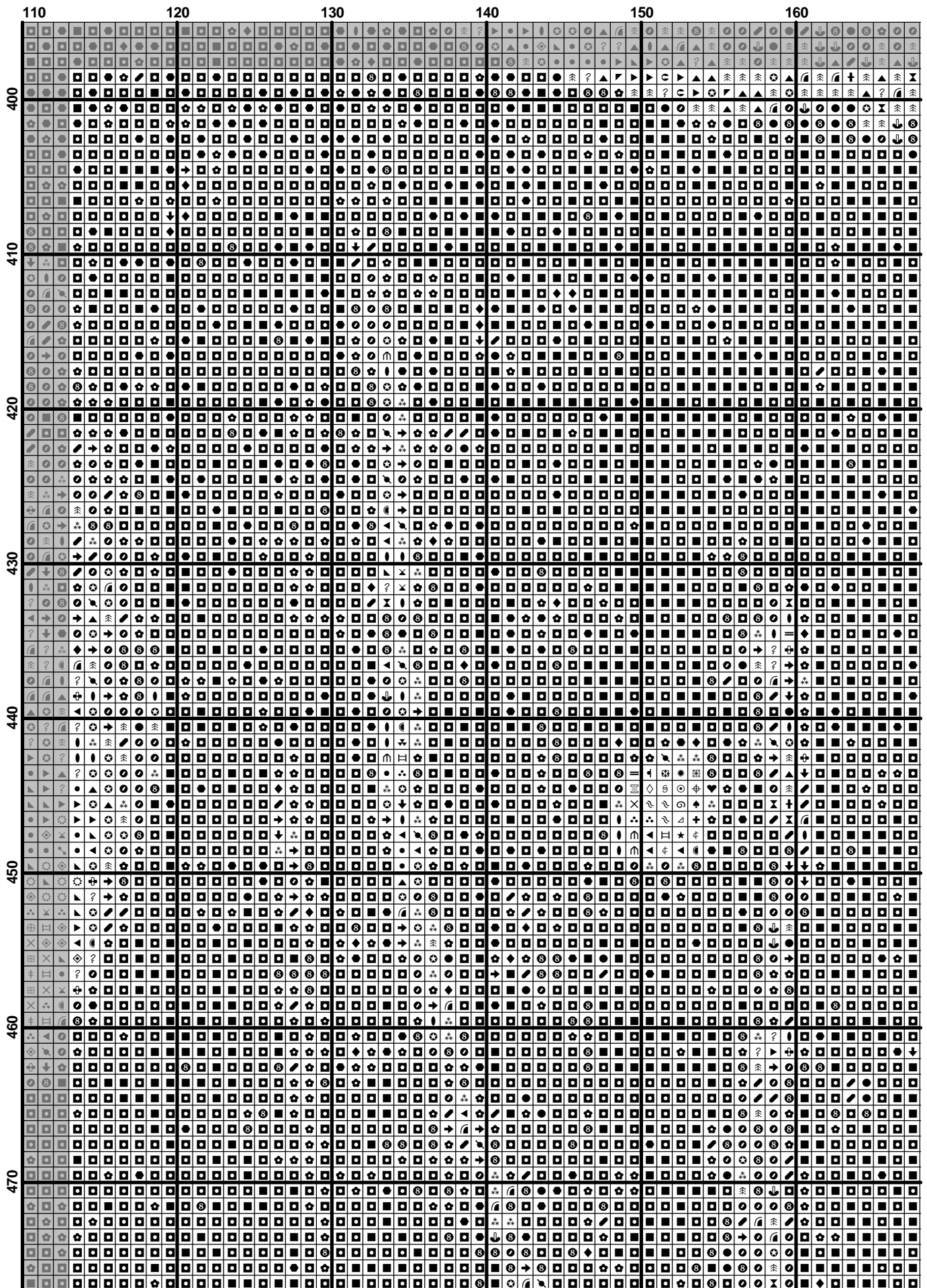
[illegible]

$$(47) \quad \frac{1}{\Gamma(\alpha)} \int_0^t (t-s)^{\alpha-1} f(s) ds = \frac{1}{\Gamma(\alpha)} \int_0^t (t-s)^{\alpha-1} \left( \sum_{k=0}^\infty \frac{(t-s)^k}{k!} f^{(k)}(s) \right) ds$$

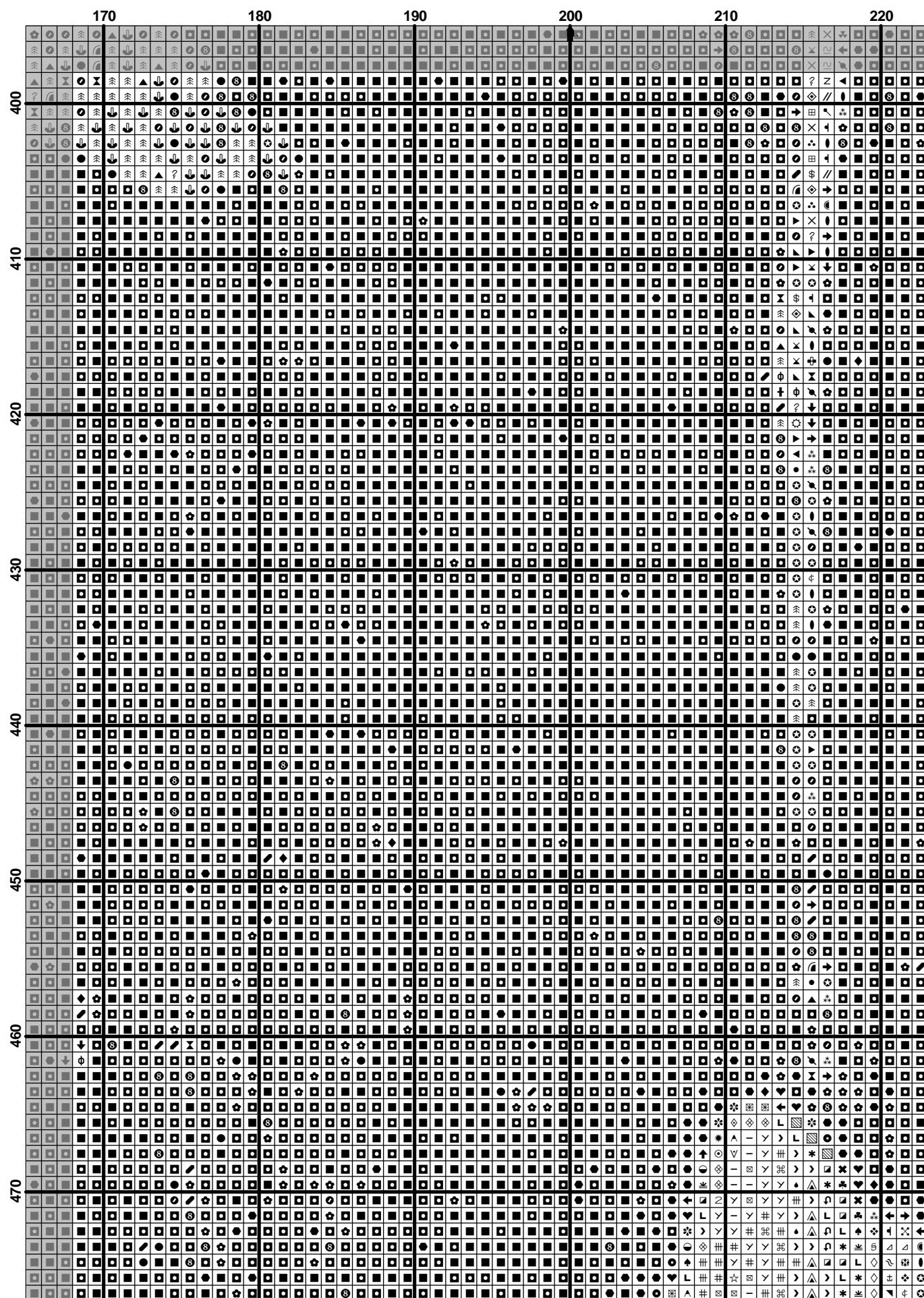


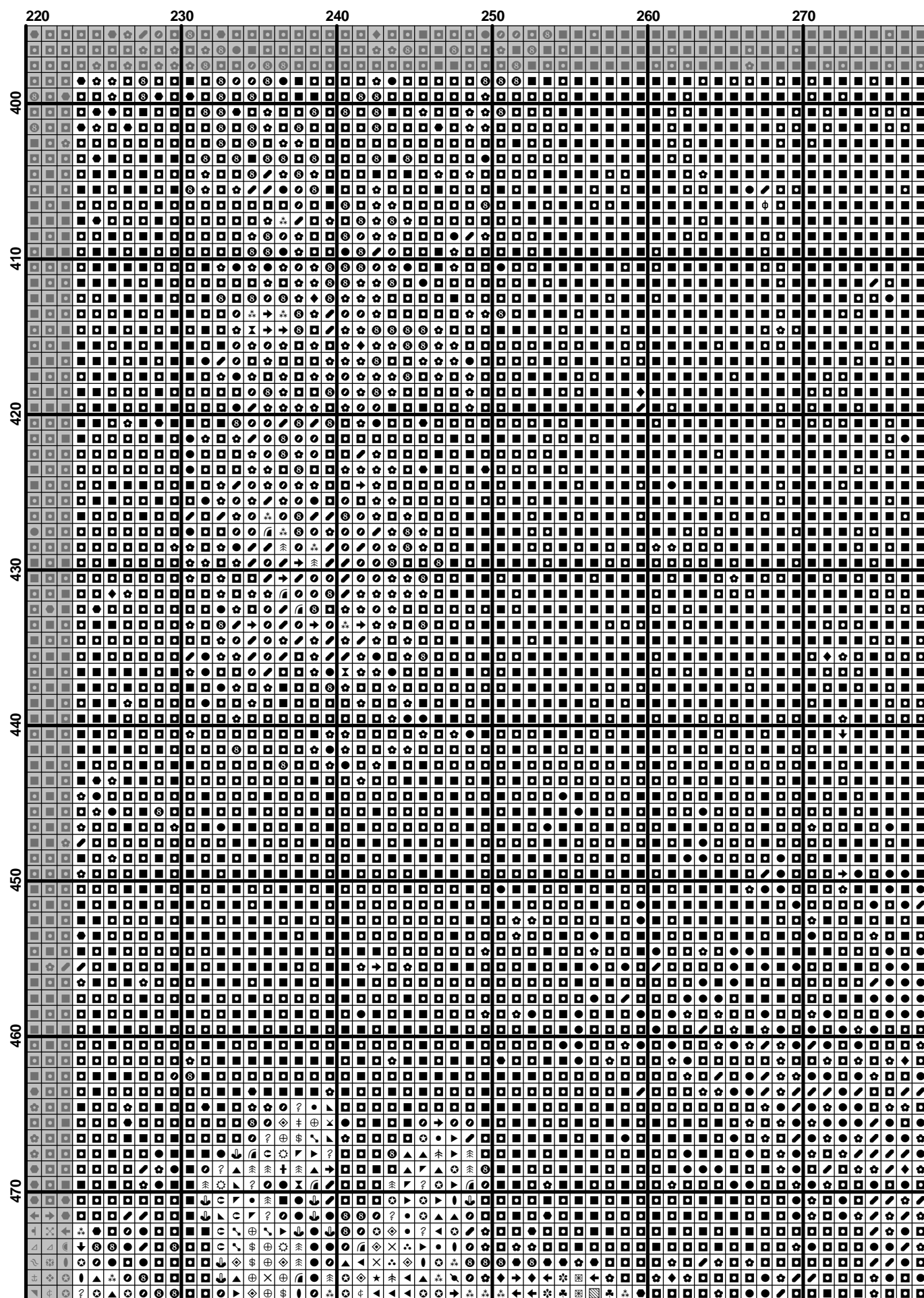


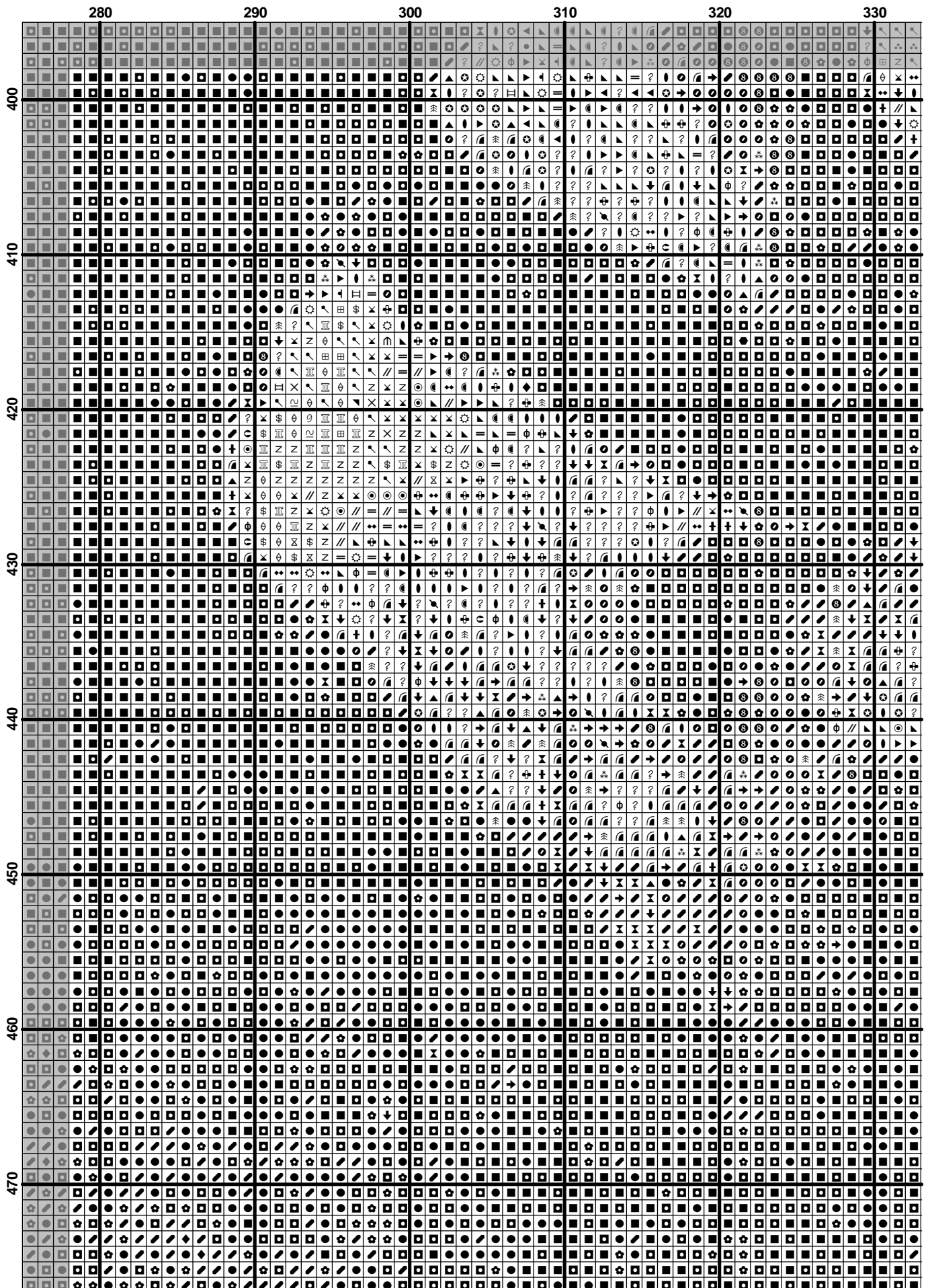


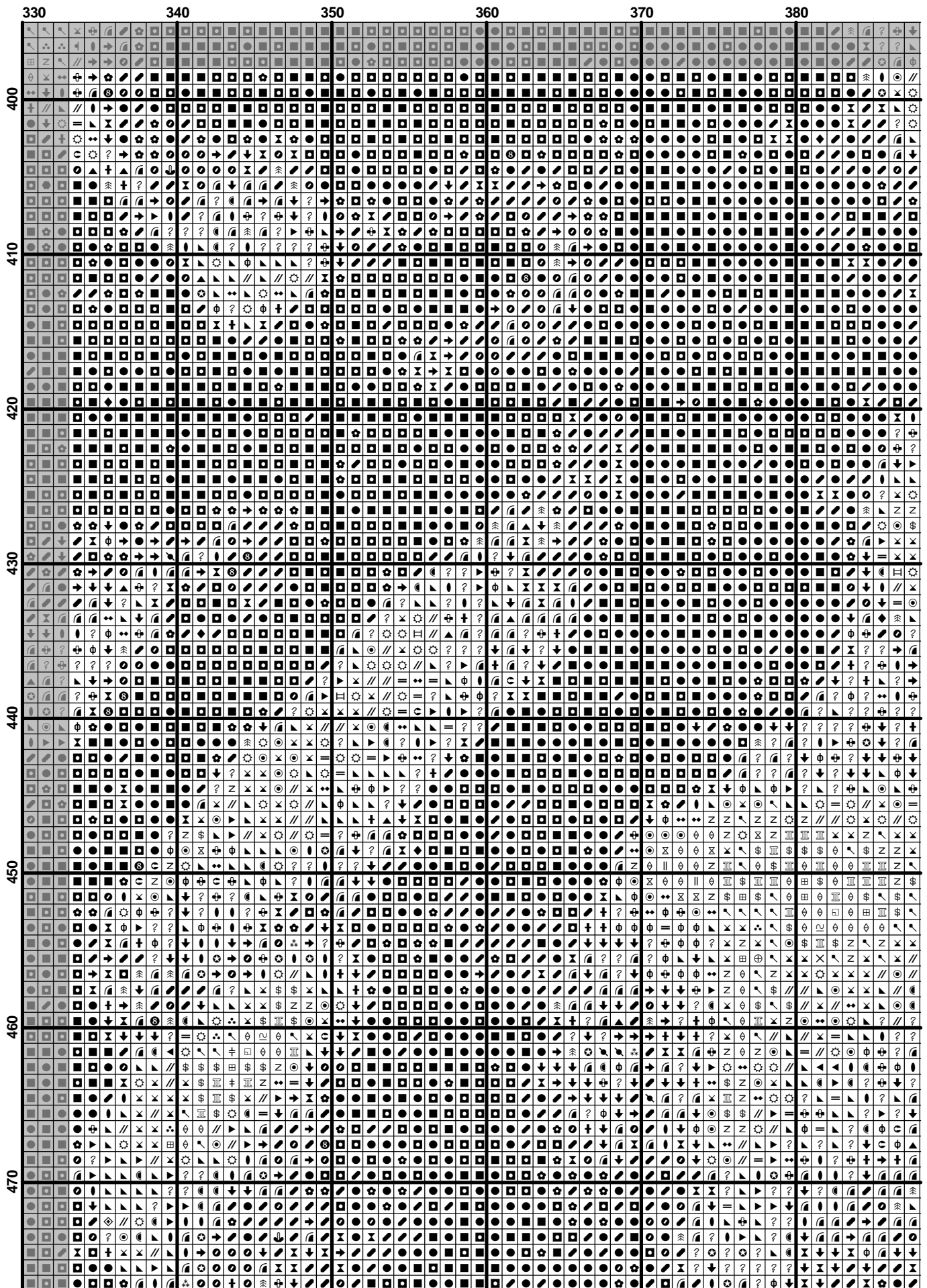


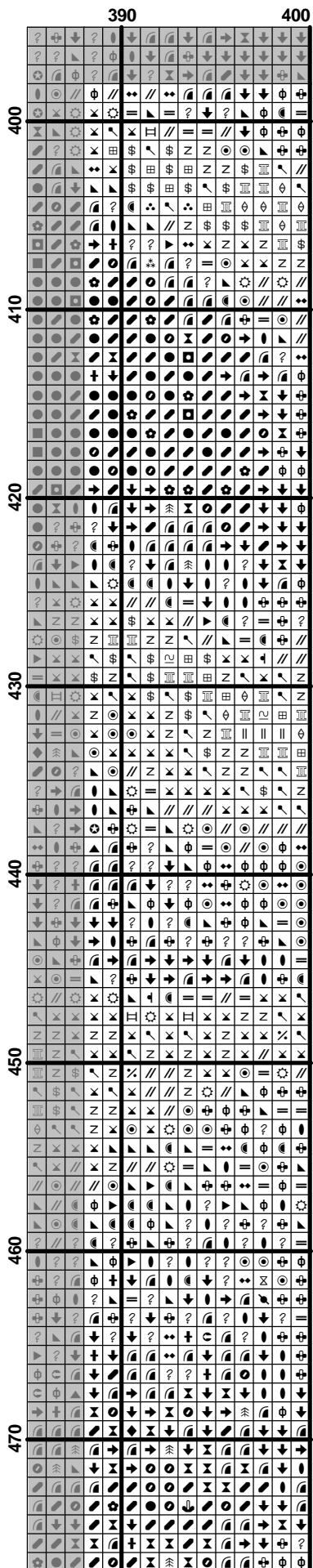




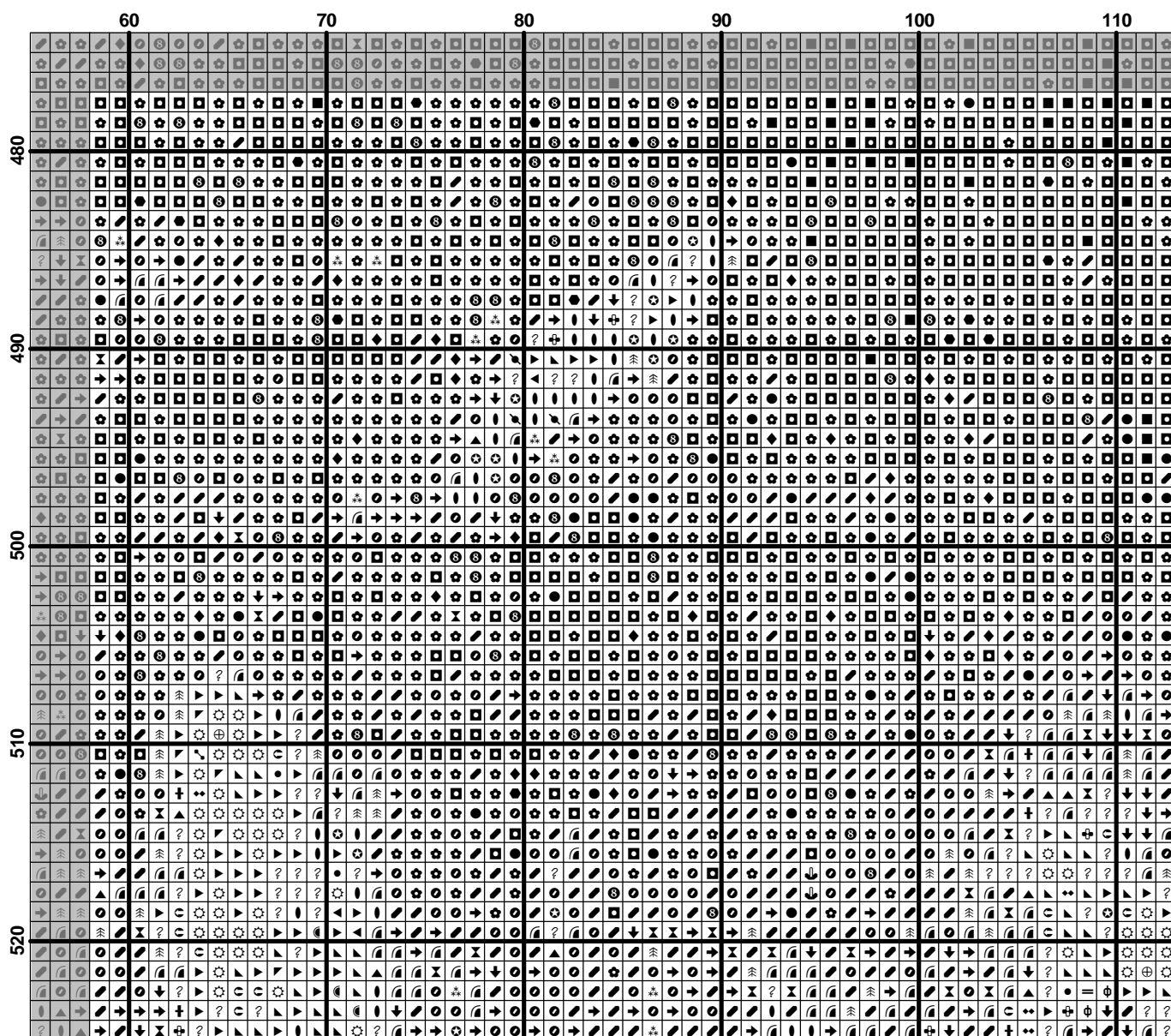


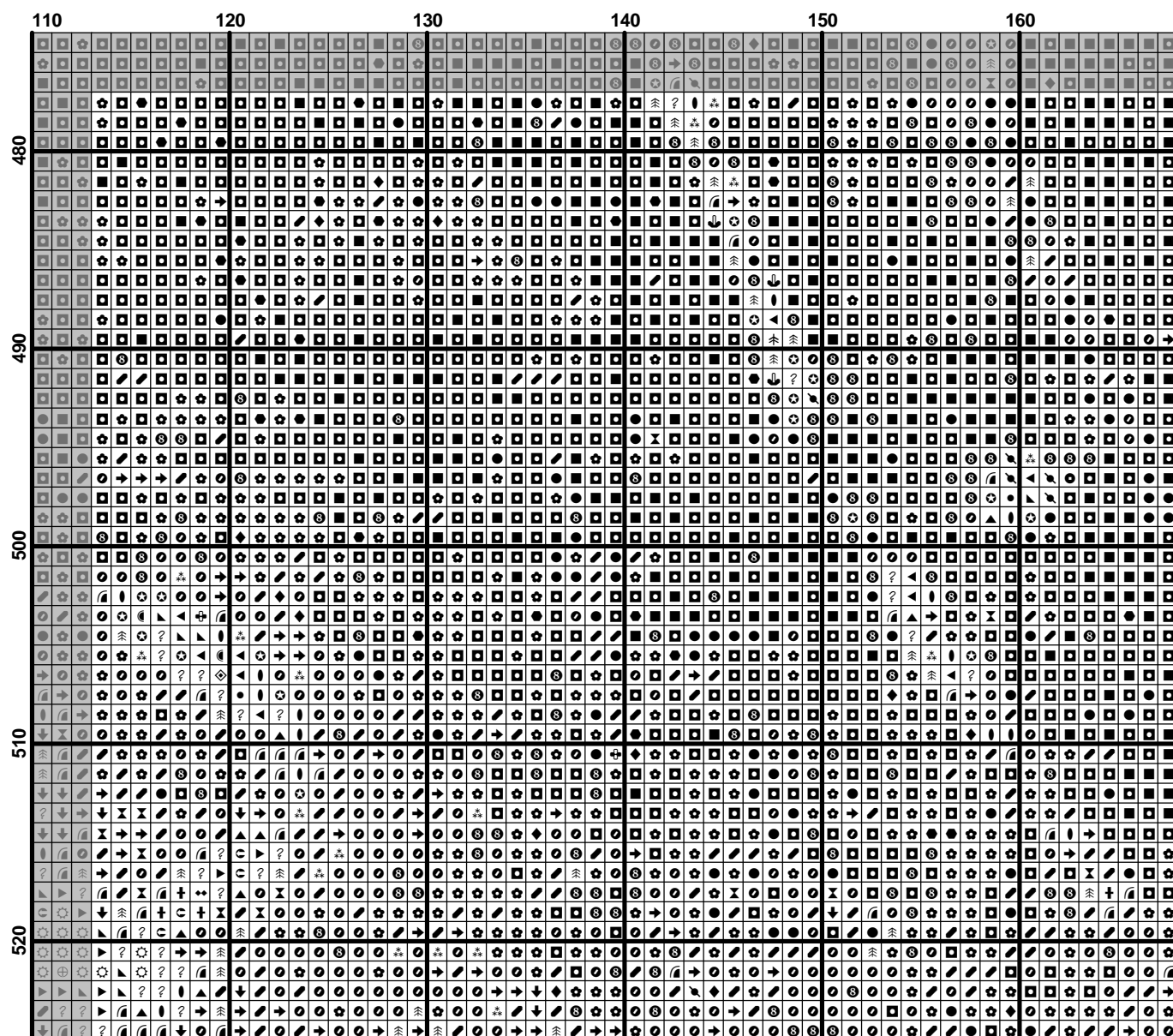






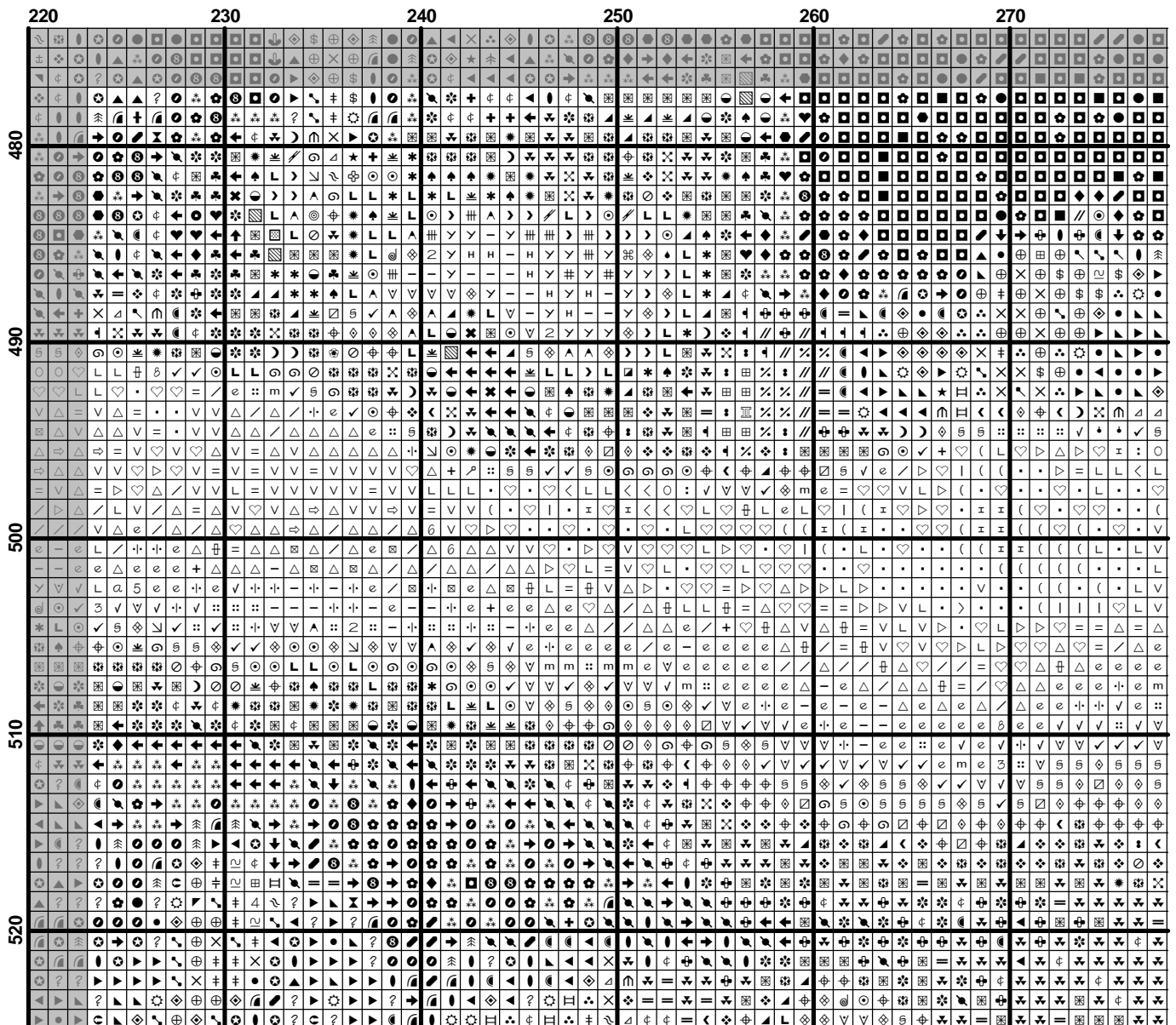












	280	290	300	310	320	330
480						
490						
500						
510						
520						

