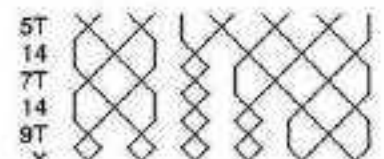


Exploring Cyclic Spliced Maximus

1. Some technical things
2. What are cyclic compositions and how did they come about?
3. How have cyclic compositions evolved over time?
4. How do you approach ringing cyclic compositions?



Parts and Part Ends

1,264 Plain Bob Major

Mark B Davies

23456	W	B	M	H
42356				-
34625	-		-	
25463	4	2	4	
23456	-		-	2
4 = - s - s				

1,344 Plain Bob Major

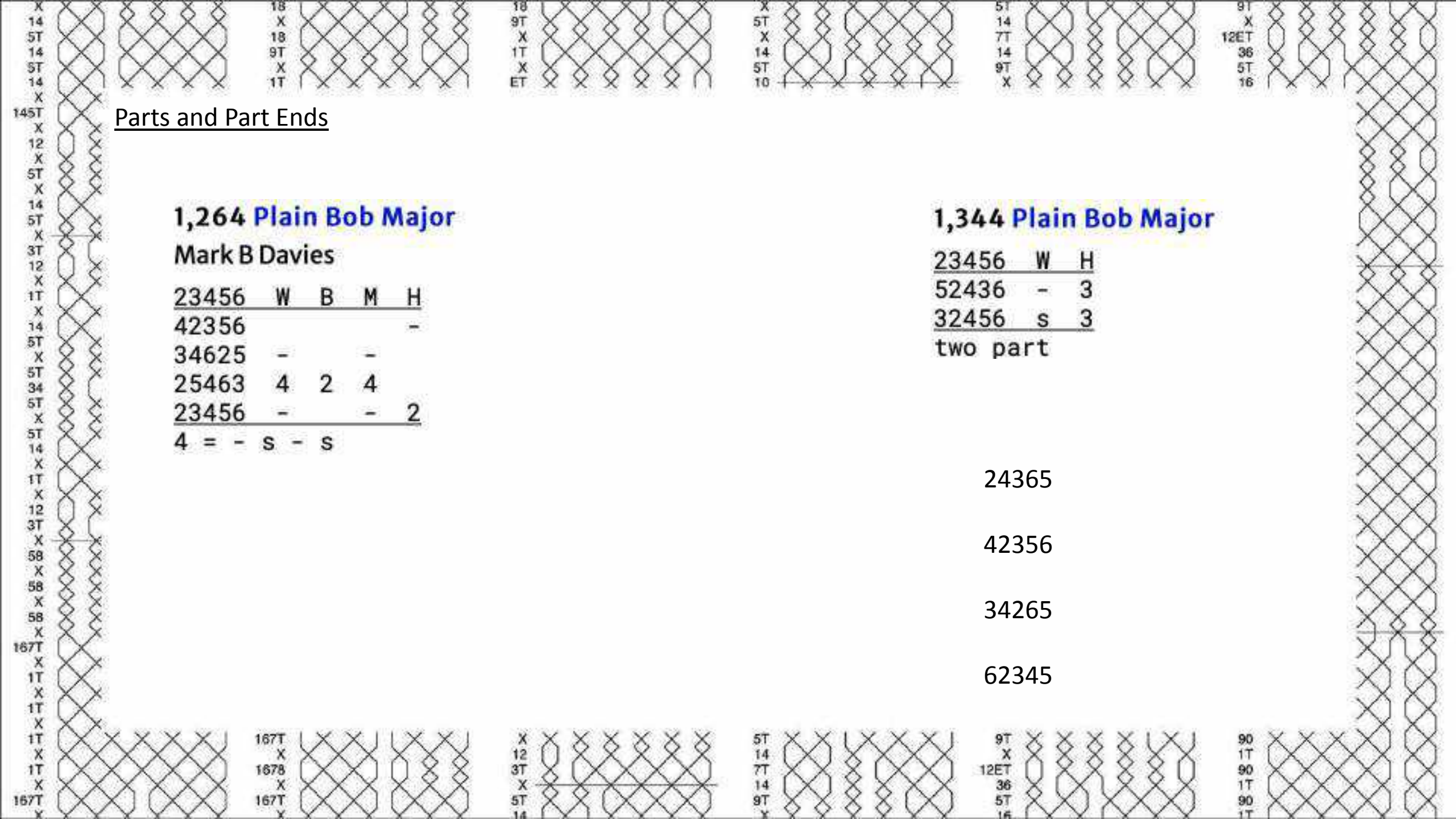
23456	W	H
52436	-	3
32456	s	3
two part		

24365

42356

34265

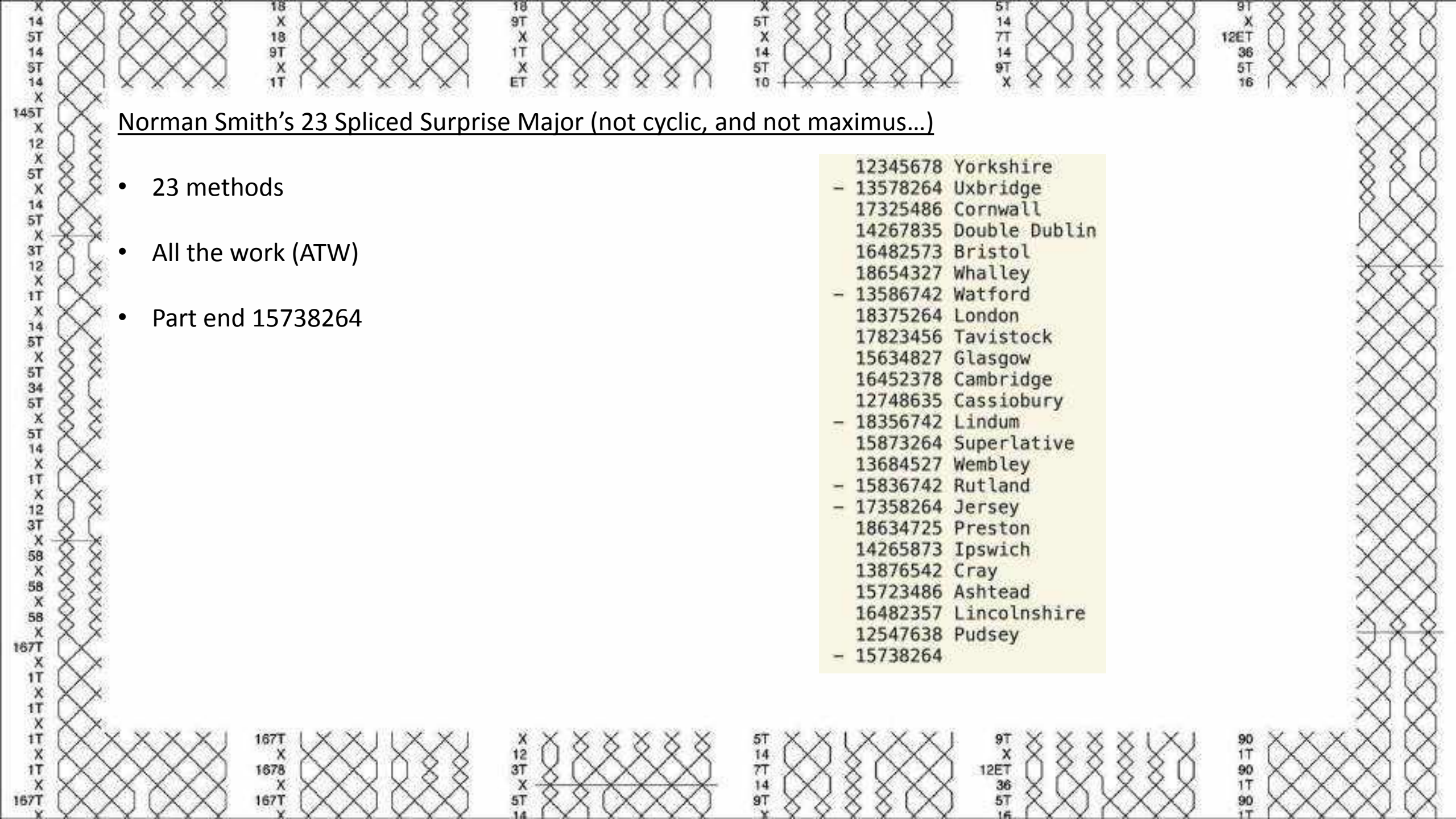
62345



Norman Smith's 23 Spliced Surprise Major (not cyclic, and not maximus...)

- 23 methods
- All the work (ATW)
- Part end 15738264

12345678	Yorkshire
- 13578264	Uxbridge
17325486	Cornwall
14267835	Double Dublin
16482573	Bristol
18654327	Whalley
- 13586742	Watford
18375264	London
17823456	Tavistock
15634827	Glasgow
16452378	Cambridge
12748635	Cassiobury
- 18356742	Lindum
15873264	Superlative
13684527	Wembley
- 15836742	Rutland
- 17358264	Jersey
18634725	Preston
14265873	Ipswich
13876542	Cray
15723486	Ashtead
16482357	Lincolnshire
12547638	Pudsey
- 15738264	



18
X
18
9T
X
1T

18
9T
X
1T
ET

X
5T
X
14
5T
10

5T
14
7T
14
9T
X

9T
X
12ET
36
5T
16

Transition to 'Cyclic' Part Ends

12345678	12345678
18234567	81234567
17823456	78123456...
16782345	
15678234	
14567823	12345678
13456782	56781234
12345678	12345678

15,840 Spliced Surprise Maximus (30 Methods)

John R Leary 1993 p548

- 1234567890ET Burwell Fen
-
- 12357496E8T0 Andromeda
- 1524367890ET Wembley
- 145628307T9E Carlisle
- 1T0E89674352 Adventurer's Fen
- 108T6E495723 Daresbury
- 1ET907836245 Strathclyde
- 137295E4T608 Belfast
- 123795E4T608 Orion
- 17253496E8T0 Chatteris Fen
- 1574263890ET Cornwall
- 1648507T2E39 Zanussi
- 1392E7T50486 Halifax
- 1ET903826745 Devon
- 1T0E89634257 York
- 108T6E495372 Dun Laoghaire
- 1239E7T50486 Cambridge
- 1ET302896745 Folgate
- 1T0E83624957 Westminster
- 108T6E435279 The Hundred
- 192735E4T608 Rigel
- 1574962830ET Berkshire
- 123ET9078564 Pudsey
- 1T03826E4957 Old West River
- 1E2937T50486 Preston
- 13T20E896745 Ariel
- 1795E42638T0 Well Creek
- 1648507T93E2 Fenchurch
- 18604T53729E Bristol
- 157496E8203T Uxbridge
- 14567890ET23

11 part. 528 each method. 329 com, all the work.

167T
X
1678
X
167T
Y

X
12
3T
X
5T
14

5T
14
7T
14
9T
Y

9T
X
12ET
36
5T
16

90
1T
90
1T
90
1T

14
5T
14
5T
14
X
145T
X
12
X
5T
X
14
5T
X
3T
12
X
1T
X
14
5T
X
5T
34
5T
X
5T
14
X
1T
X
12
3T
X
58
X
58
X
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167T
X
1T
X
1T
X
1T
X
1T
X
1T
X
167T
Y

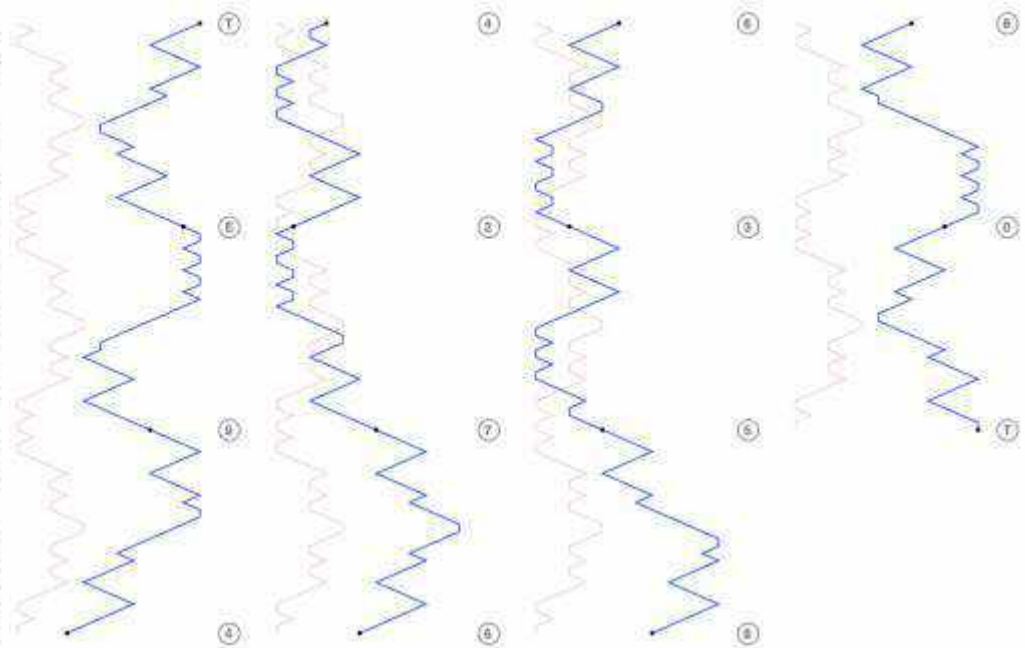
St Sepulchre	5280 Spliced Maximus,	10 methods, comp S A Coaker.
	1234567890ET	
Cambridge S	157392E4T608	
Superlative S	19E7T5038264	
Bristol S	108T6E492735	
Orion S	1T0E89674523	
Newgate S	s 1E9T07856342	
Countesthorpe S	190E8T674523	(12th's place Lincolnshire)
Strathclyde S	s 1T7E95038264	
Rigel S	s 1E5T73920486	
Londinium S	s 1T3E52749608	
Avon D	1ET234567890	
11-part.	528 each method; 109 com, atw.	

How can the plan be improved?

Link Methods

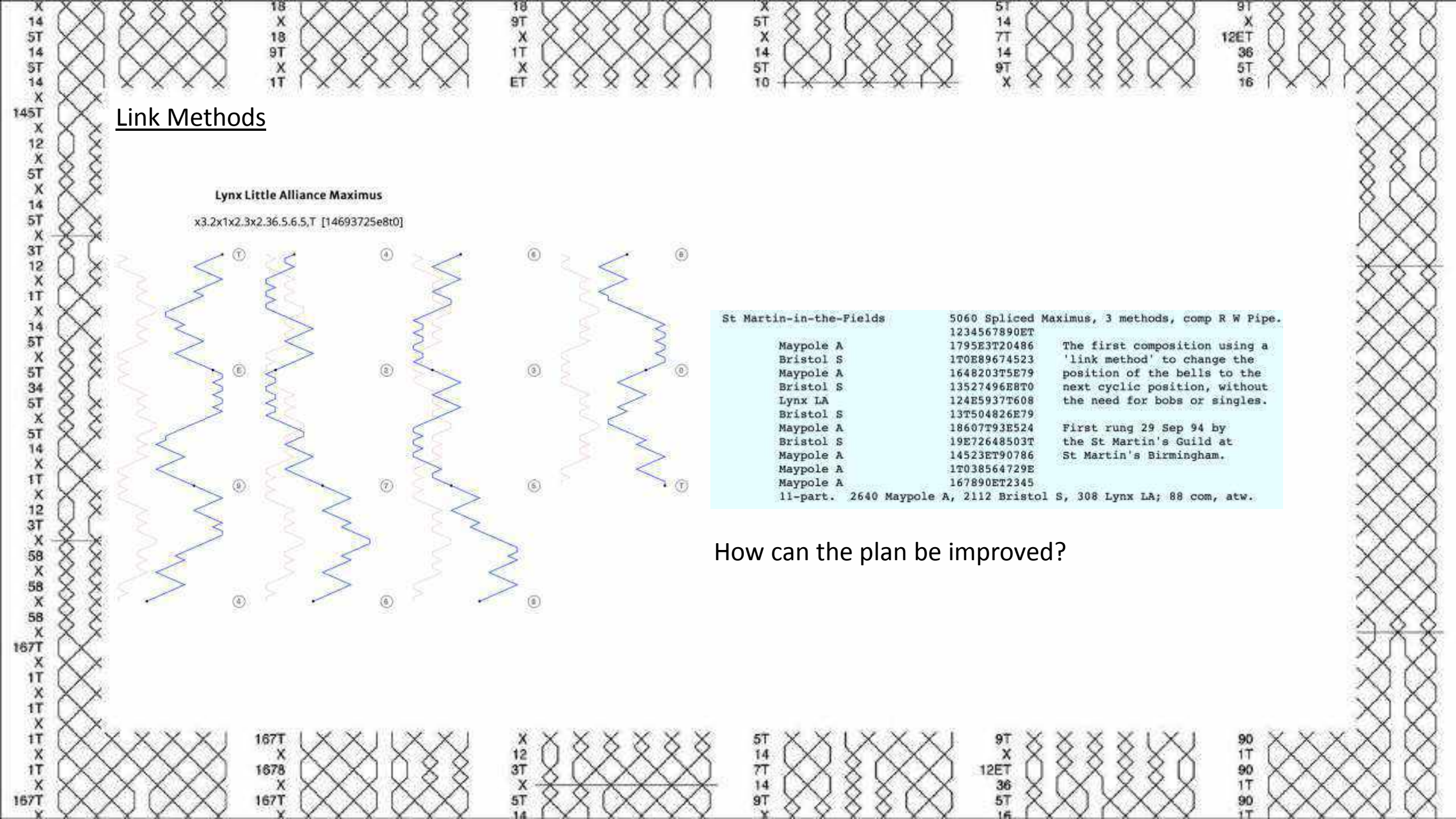
Lynx Little Alliance Maximus

x3.2x1x2.3x2.36.5.6.5,T [14693725e8t0]



St Martin-in-the-Fields	5060 Spliced Maximus, 3 methods, comp R W Pipe.	
	1234567890ET	
Maypole A	1795E3T20486	The first composition using a 'link method' to change the position of the bells to the next cyclic position, without the need for bobs or singles.
Bristol S	1T0E89674523	
Maypole A	1648203T5E79	
Bristol S	13527496E8T0	
Lynx LA	124E5937T608	First rung 29 Sep 94 by the St Martin's Guild at St Martin's Birmingham.
Bristol S	13T504826E79	
Maypole A	18607T93E524	
Bristol S	19E72648503T	
Maypole A	14523ET90786	
Maypole A	1T038564729E	
Maypole A	167890ET2345	
11-part. 2640 Maypole A, 2112 Bristol S, 308 Lynx LA; 88 com, atw.		

How can the plan be improved?



14
5T
14
5T
14
X

18
X
18
9T
X
1T

18
9T
X
1T
X
ET

X
5T
X
14
5T
10

5T
14
7T
14
9T
X

9T
X
12ET
36
5T
16

Pivot Leads

145T
X
12
X
5T
X
14
5T
X
3T
12
X
1T
X
14
5T
X
5T
34
5T
X
5T
14
X
1T
X
12
3T
X
58
X
58
X
167T
X
1T
X
1T
X
1T
X
167T
Y

167T
X
1678
X
167T
Y

X
12
3T
X
5T
14

5T
14
7T
14
9T
Y

9T
X
12ET
36
5T
16

90
1T
90
1T
90
1T

12345678	14263857	16482735	78674523	17856342	15738264	13527486
21436587	41628375	61847253	81765432	71583624	51372846	31254768
12346857	14268735	16487523	18675342	17853264	15732486	13524678
21438675	41627853	61845732	81763524	71582346	51374268	31256487
24136857	46128735	68147523	87165342	75183264	53172486	32154678
42316587	64218375	86417253	78615432	57813624	35712846	23514768
24135678	46123857	68142735	87164523	75186342	53178264	32157486
42315768	64213587	86412375	78614253	57816432	35718624	23517846
24351786	46231578	68421357	87641235	75861423	53781642	32571864
23457168	42635187	64823175	86742153	78564132	57386124	35278146
32541786	24361578	46281357	68471235	87651423	75831642	53721864
35247168	23465187	42683175	64872153	86754132	78536124	57328146
53427618	32645817	24863715	46782513	68574312	87356214	75238416
35246781	23468571	42687351	64875231	86753421	78532641	57324861
32547618	24365817	46283715	68472513	87654312	75836214	53728416
23456781	42638571	64827351	86745231	78563421	57382641	35274861
24365871	46283751	68472531	87654321	75836241	53728461	32547681
42638517	64827315	86745213	78563412	57382614	35274816	23456718
46235871	68423751	87642531	75864321	53786241	32578461	24357681
64328517	86247315	78465213	57683412	35872614	23754816	42536718
46238157	68427135	87645123	75863142	53782164	32574186	24356178
42631875	64821753	86741532	78561324	57381246	35271468	23451687
24368157	46287135	68475123	87653142	75832164	53724186	32546178
23461875	42681753	64871532	86751324	78531246	57321468	35241687
32416857	24618735	46817523	68715342	87513264	75312486	53214678
23146587	42168375	64187253	86175432	78153624	57132846	35124768
32415678	24613857	46812735	68714523	87516342	75318264	53217486
23145768	42163587	64182375	86174253	78156432	57138624	35127846
21347586	41265378	61483257	81672435	71854623	51736842	31528764
12435768	14623587	16842375	18764253	17586432	15378624	13257846
21345678	41263857	61482735	81674523	71856342	51738264	31527486
12436587	14628375	16847253	18765432	17583624	15372846	13254768
14263857	16482735	18674523	17856342	15738264	13527486	12345678

Pivot Leads

1234567890ET	1T0E89674523	13527496E8T0	108T6E492735	157392E4T608	18604T2E3957	1795E3T20486	1648263T5E79	19E7T5038264	142638507T9E	1ET987856342
2143658709TE	T1E098765432	312547698E0T	01T8E6947253	5137294E6T80	0106T4E29375	71593E2T4068	618402T3E597	917E5T302846	41628305T7E9	E19T90583624
12346805T79E	1T0E97856342	1352467890ET	108T6E9674523	15732946E8T0	1860T4E2735	179532E4T608	164802T2E3957	19E753T20486	1426803T5E79	1ET975038264
21438605T7E9	T1E0979583624	3125648079TE	01T89E765432	51372698E0T	0106T9A7253	7159234E6T80	6184T0E29375	917E352T4068	416208T3E597	E19T57302846
241836507T9E	TE1709856342	3216547890ET	0T198E674523	5317296E8T0	001E6T49735	751293E4T608	681T40E29357	9713E5T20486	461928T3E579	E915T7038264
42816305T7E9	ET7190583624	2361458709TE	T091E0765432	35427698E0T	00E1T6947253	5721394E6T80	86T104E29375	79315E2T4068	640182T3E597	9E517T302846
4218603T5E79	ET1795038264	231648507T9E	T019E7856342	354267890ET	00E1T9674523	57123496E8T0	861T0E492735	791352E4T608	64108T2E3957	9E1573T20486
248106T3E597	TE7159302846	32618405T7E9	0T917E583624	531628709TE	00E19T765432	752143698E0T	68T1E0947253	9731254E6T80	4601T8E29375	E95137T24068
2640163T5E79	T7E519038264	362814507T9E	09T71E856342	536127890ET	0E091T67453	72541396E8T0	6T8E18492735	937215E4T608	406T182E3957	E59317T20486
820461T3E597	7T5E91302846	63824105T7E9	00T7E1583624	4563218709TE	E908T1765432	274531698E0T	T6E801947253	04T6814E6T80	04T6814E6T80	04T6814E6T80
8240163T5E79	7T5E19038264	632814507T9E	00T71E856342	4536127890ET	E8091T67452	27541396E8T0	T68E18492735	397215E4T608	046T182E3957	5E9317T20486
20046135T7E9	7T5E91003624	3062415709TE	09T7E1865432	446321798E0T	0E90T164725	7245319E6T80	6TE801429375	922751E4068	40T68123E597	E5307T102846
824063157T9E	7T5E90186342	6328451790ET	00T7E8164523	45362719E8T0	E809T6142735	2754391E6T80	T68E04123957	39725E1T0486	046T82135E79	5E937T100264
28400351T7E9	T7E500813624	3624857109TE	09T7E8615432	543267918E0T	0E0T96417253	725349E16T80	6T80E4219375	93752E14068	4068T231E597	E5973T012846
248630157T9E	TE7905186342	3264581790ET	0T9E8T164523	53427619E8T0	00E6T9142735	7523941E6T80	68T04E123957	9735E21T0486	4608T135E79	E957T3100264
42680351T7E9	ET9750013624	2346057109TE	T0E978615432	352467918E0T	00T96417253	573249E16T80	860TE4219375	79532E1T4068	6400T231E597	9E753T012846
4628305T1E79	E9T705831264	243658781T9E	TE0907651342	3254769810ET	0T0E69471523	537294E618T0	006T4E291735	7593E2T41608	68402T3E1957	9E75T3021486
648203T5E197	9E7T50382146	42638507T1E9	E90878563124	234567890ET	T0E896745132	3527496E810T	00T6E4927153	57392E4T6108	8604T2E39175	795E3T204168
68402T35E179	9E75T3001264	4628305T1T9E	E9T705861342	2436587910ET	TE09087641523	3254769E18T0	0T0E69421735	537294E1608	806T4E231957	7593E2T01486
8604T253E197	795E3T002146	648203T5E197	9E7T50683124	4263859781TE	E908T8465132	3254769E801T	0T0E69427513	537294E6810	00T6E4329175	57392E4T168
68402T35E917	9E7E5T3002416	4628305T1E9	E9T705863214	243658790T1E	TE09087645312	3254769E801T	0T0E69427513	537294E6810	00T6E4239715	7593E2T04618
648203T5E917	9E7T50384261	42638507E19T	E90878562341	23456789T0E1	T0E896743521	3527496E801T	00T6E4925731	57392E4T0681	8604T2E37951	795E3T206481
4628305T9E17	E9T705834216	24365870E1T9E	TE09087652314	3254769870E1	0T0E69473512	537294E6081T	006T4E295713	7593E2T40610	68402T3E7915	9E75T3026418
648203T5E971	9E7T50382461	42638507TE91	E90878563241	234567890TE1	T0E896745321	3527496E801T	00T6E4927531	57392E4T6081	8604T2E39751	795E3T204681
68402T3E5791	9E7E5T3020641	4628305T79E1	E9T705836421	243658709E1T	TE09087654231	32547698E0T01	0T0E69472351	537294E6T001	806T4E293571	7593E2T40061
8604T2E37519	795E3T206814	648203T5971E	9E7T50384612	42638507E91T	ET90878562413	23456789TE10	T0E896743215	3527496E0T18	00T6E4925317	57392E4T0816
68402T3E7591	9E7E5T3026841	4628305T97E1	E9T705834621	24365870E9T1	TE09087652431	32547698TE01	0T0E69473251	537294E60T01	806T4E295371	7593E2T40061
648203T5E719	9E7T50382614	42638507T91E	ET90878536412	234567809E1T	T0E896754213	35274968ET10	00T6E4972315	57392E46T018	8604T2E93517	795E3T240016
462830E5179E	E9T705238164	24365870719E	TE09087556142	3254760891E1T	0T0E69574123	53729486E1T0	006T4E792136	7593E264T100	68402T9E3157	9E75T3420186
648203TE1597	9E7T50321846	426385071E9	E90878531624	2345678019TE	T0E896751432	352749681E0T	00T6E4971253	57392E461T00	8604T2E91375	795E3T241068
68402T3E5179	9E7E5T3028164	4628305T19E	E9T705836142	2436587091E1T	TE09087654123	32547698E1T0	0T0E69472135	537294E6T100	00T6E4921375	57392E4T1068
8604T2E31597	795E3T201846	648203T51E7E9	9E7T50381624	4263850719TE	ET90878561432	234567891E0T	T0E896741253	3527496E1T00	00T6E4921375	57392E4T1068
00642TE13957	759E3T210486	684230T15E79	9E7E05318264	4623500T7T9E	E9T087516342	4235768190ET	TE08069714523	3257946E8T0	0T064E912735	5379E24T1608
0046T21E9375	5E793T124068	862403TE597	79TE50132846	64320510T7E9	9E0T78153624	4235671009TE	ET08096175432	237549168E0T	T0E8E4197253	3597E2146T00
04862TE13957	5E79T3210486	826430T15E79	7T9E05318264	6342500T7T9E	00E187516342	4523768190ET	E8T069714523	2735946E8T0	T6084E912735	3957E24T1608
40826T1E9375	E57T93124068	286340TE597	T790E5132846	6452810T7E9	09E8T7153624	5427361809TE	0E8T609175432	723954168E0T	6T048E197253	935E72146T00
04286T1E3957	5E7T91320486	8236410T5E79	T709E1538264	63542180T7T9E	908E1T756342	4572316980ET	E8T01974523	27935146E8T0	T6400T1E92735	39E57124T608
408216T3E597	E57T19302846	20631405T7E9	T790T583624	645128709TE	09E81T765432	542713698E0T	E8T010947253	7239154E6T80	6T0418E29375	935E172T4068
4028613T5E79	E5T791838264	283641507T9E	T709E1856342	6354217090ET	09E8T1674523	54723196E8T0	E8T01492735	729351E4T608	6T400T2E3957	93E571T20486
048216T3E597	5E7T19302846	82631405T7E9	T790T583624	63545128709TE	09E81T765432	452713698E0T	E8T010947253	2739154E6T80	T60418E29375	93E5172T4068
0041263T5E79	5E7T19038264	862134507T9E	79T10E856342	6401527890ET	9E018T674523	42517396E8T0	ET8160492735	237195E4T608	T061482E3957	5591E7T20486
001462T3E597	751E9T302846	68124305T7E9	9E7T0E0583624	463258709TE	E910T8765432	241537698E0T	TE1806947253	3217594E6T80	0T1684E29375	5319E2T4008
00416T2E3957	75E193T20486	6821403T5E79	9E7T1E5838264	4632850T7T9E	E901T785342	2451367090ET	E8T109674523	32175496E8T0	0T610E492735	5391T2E4T608
0014T6E29375	571E39T24068	861204T3E597	79T1E5E302846	6413205T7E9	9E10T7583624	4215638709TE	ET1890765432	231745698E0T	T01E8947253	3519274E6T80
018T462E3957	5173E9T20486	8160243T5E79	T7195T038264	6148E250T7T9E	91E78T866342	4126537890ET	E1T980674523	21347596E8T0	T10E86492735	31529E4T608
10T964E29375	15379E2T4068	180642T3E597	1759E1302846	16042105T7E9	197E0893624	1462358709TE	TE9T00765432	124357698E0T	1T0E86947253	1325794E6T80
018T6E492735	157392E4T608	81604T2E3957	7195E3T20486	164820T5E79	91E7T5038264	412638507T9E	E1T987856342	2134567890ET	T10E89674523	31527496E8T0
10T8E6947253	1537294E6T80	1806T4E29375	17593E2T4068	16042105T7E9	197E0893624	14628305T7E9	TE9T70583624	1243658709TE	T1E098765432	132547698E0T
1T0E89674523	13527496E8T0	108T6E492735	157392E4T608	18604T2E3957	1795E3T20486	1648203T5E79	19E7T5038264	142638507T9E	1ET987856342	1234567890ET

167T

X

167B

X

167T

X

X

12

3T

X

5T

14

5T

14

7T

X

14

9T

X

9T

X

12ET

X

36

5T

16

90

1T

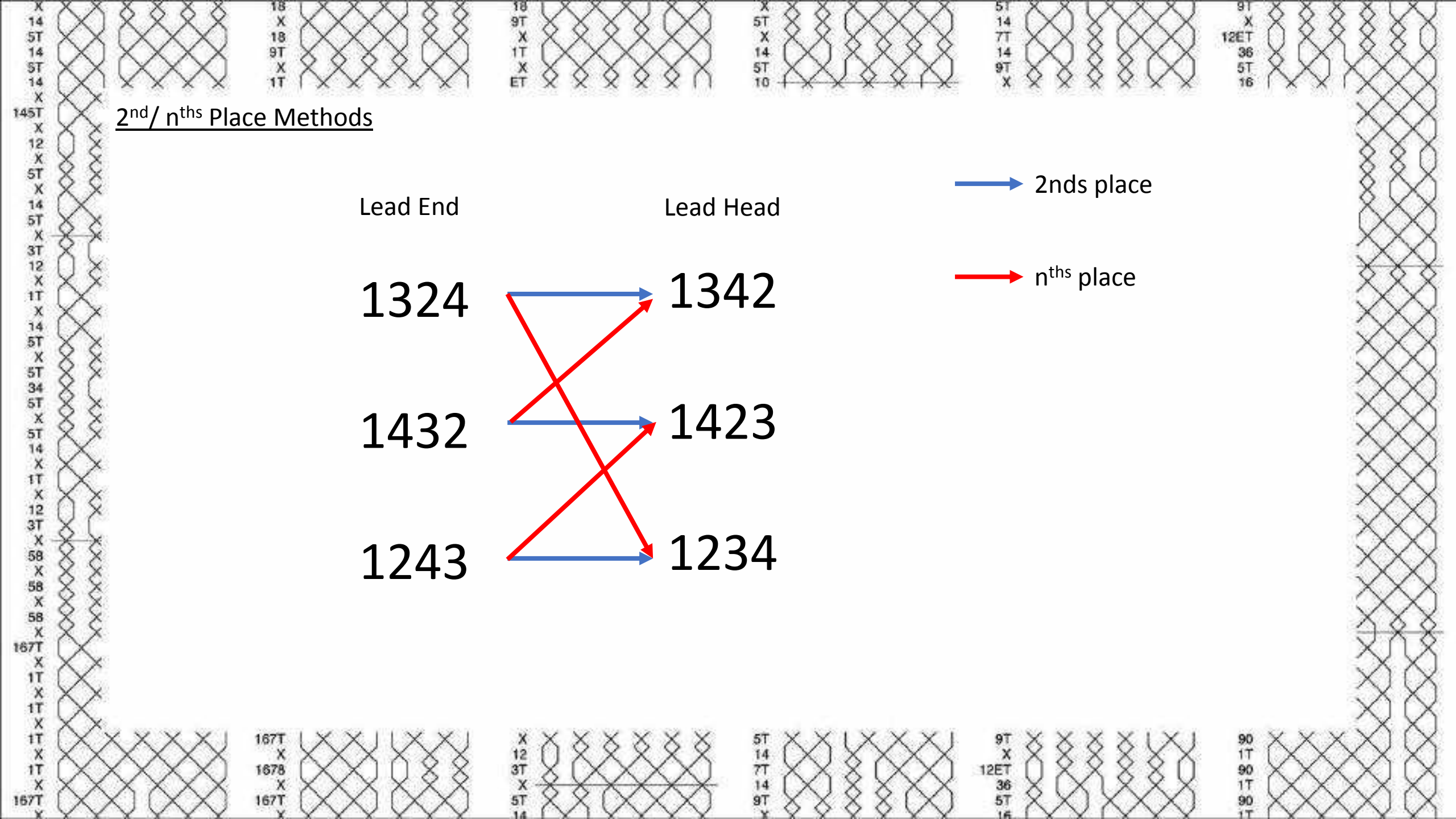
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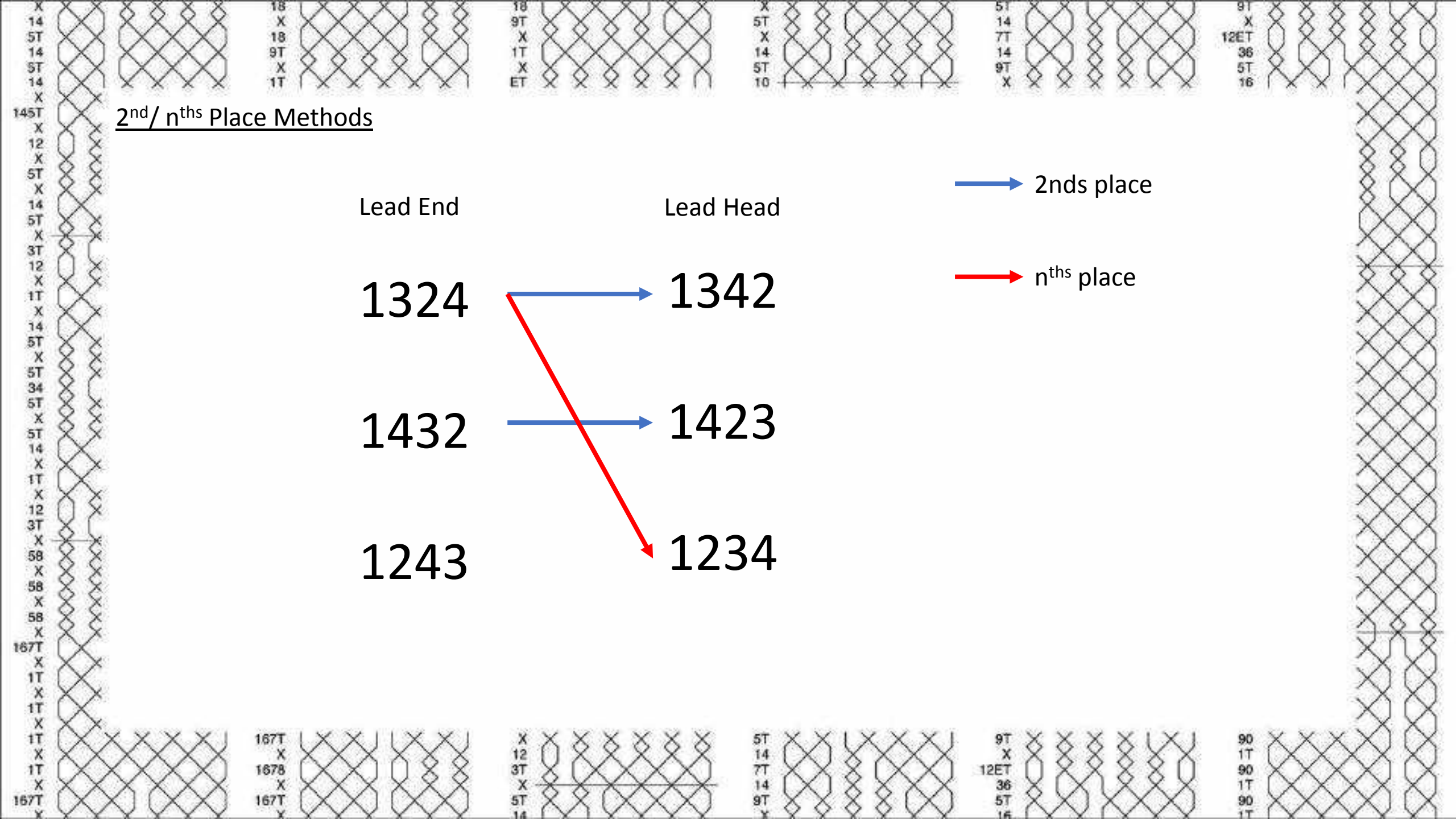
1T

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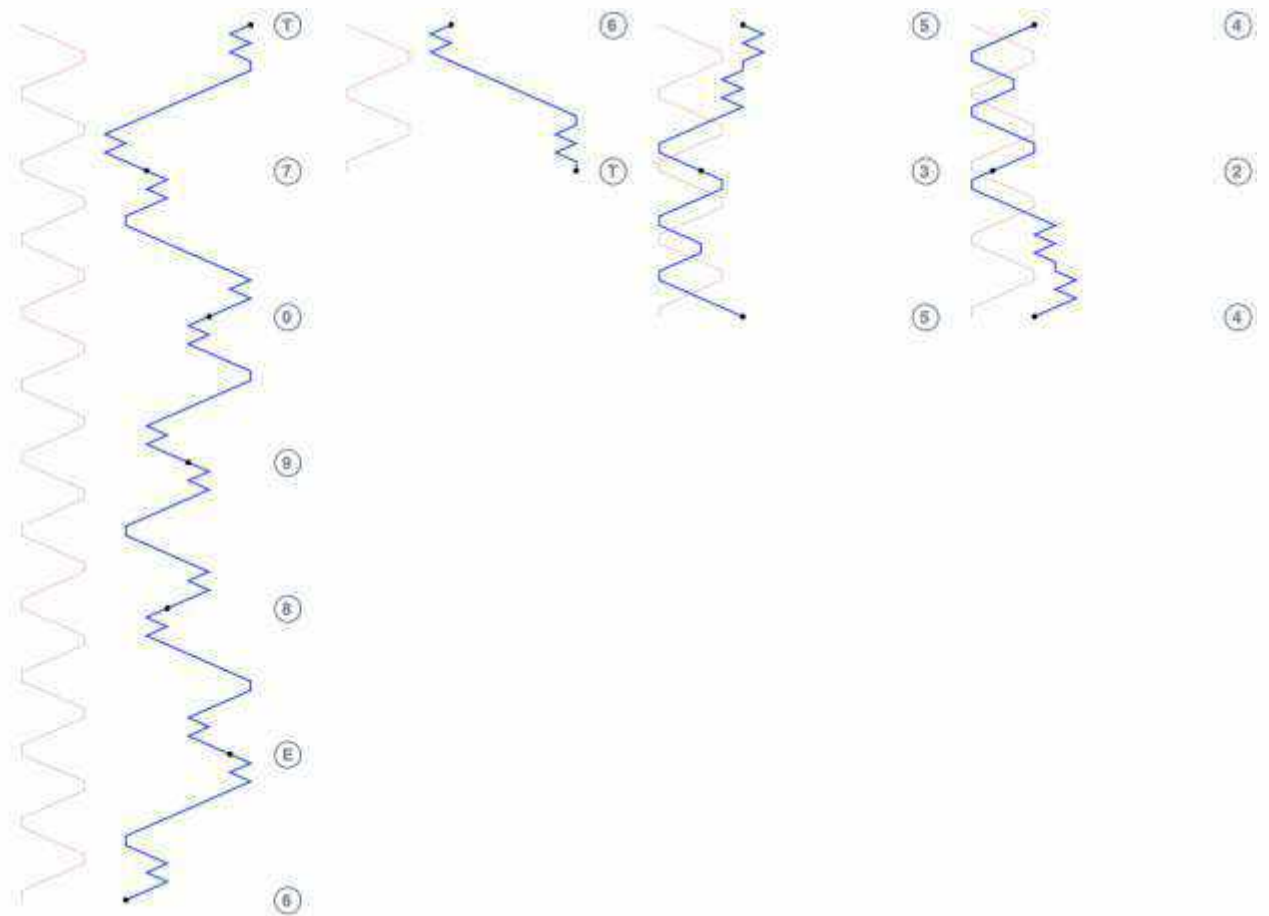
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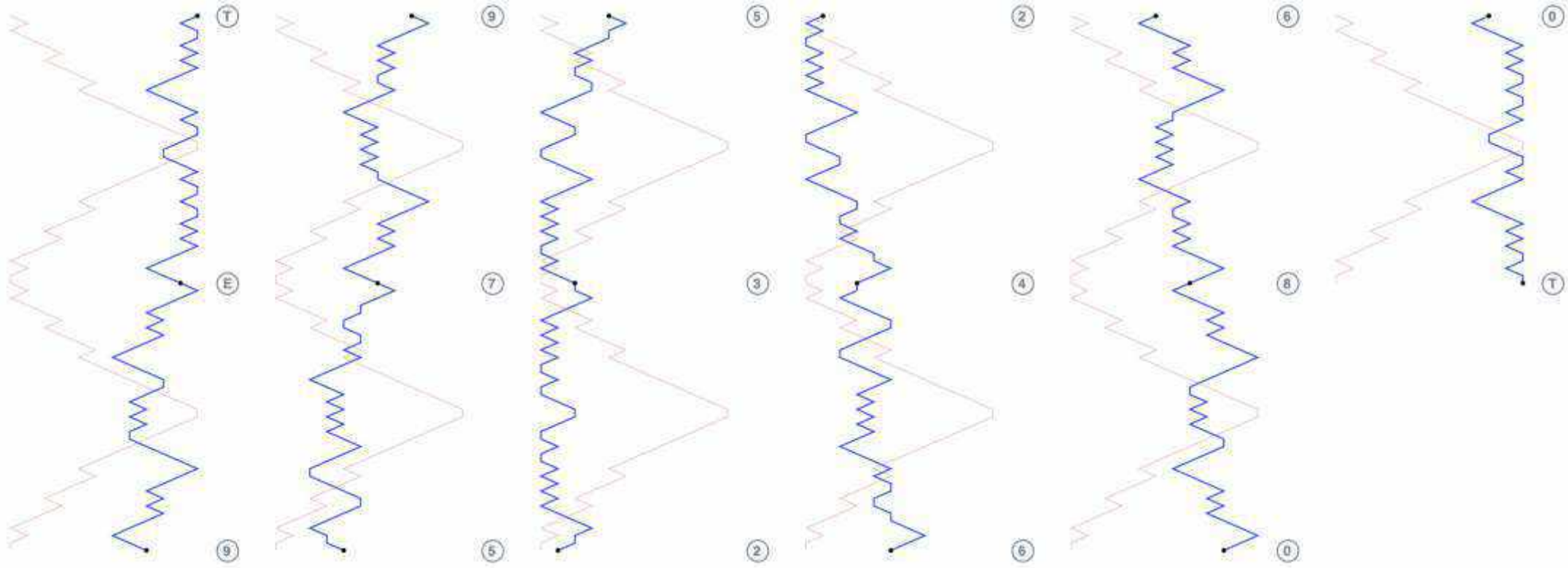
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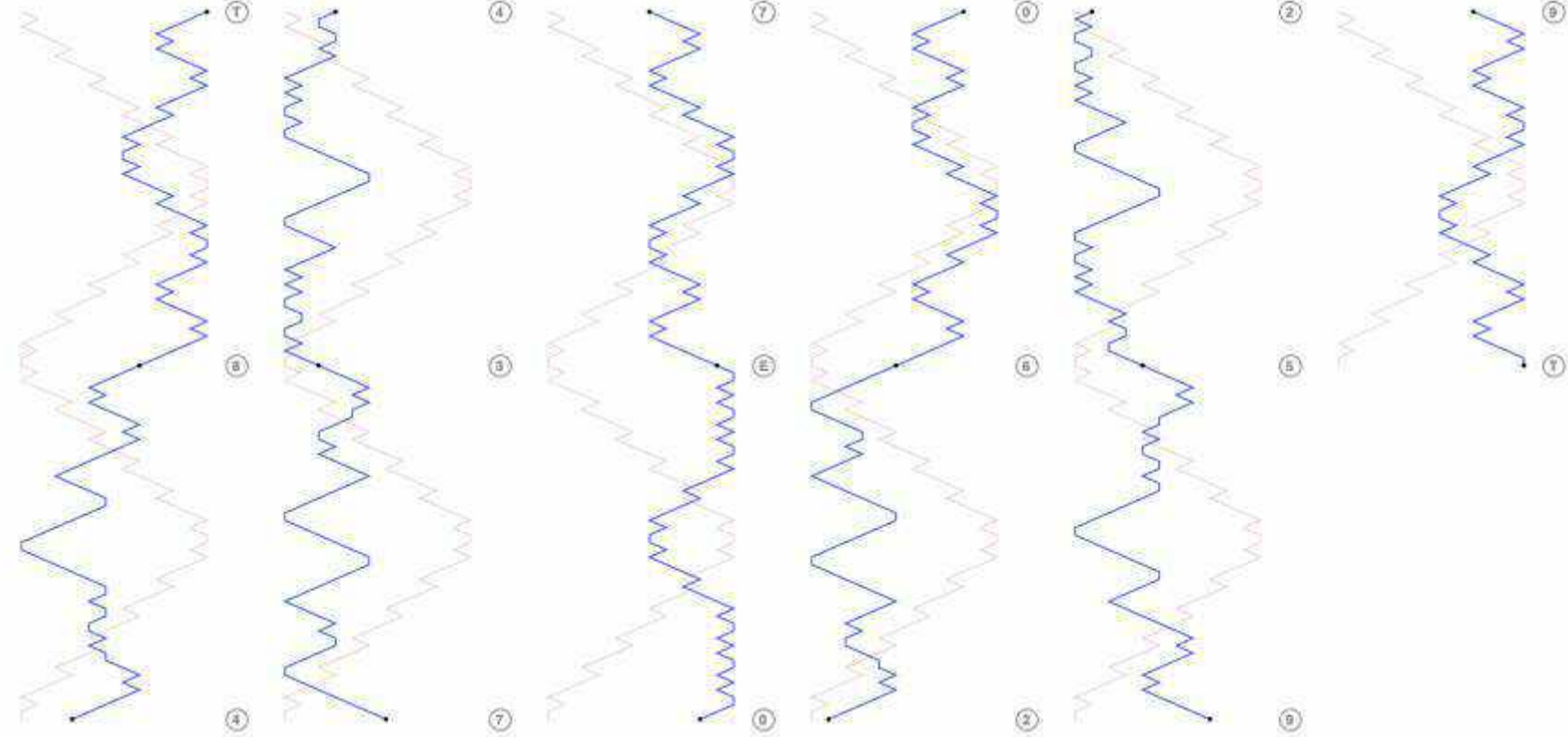
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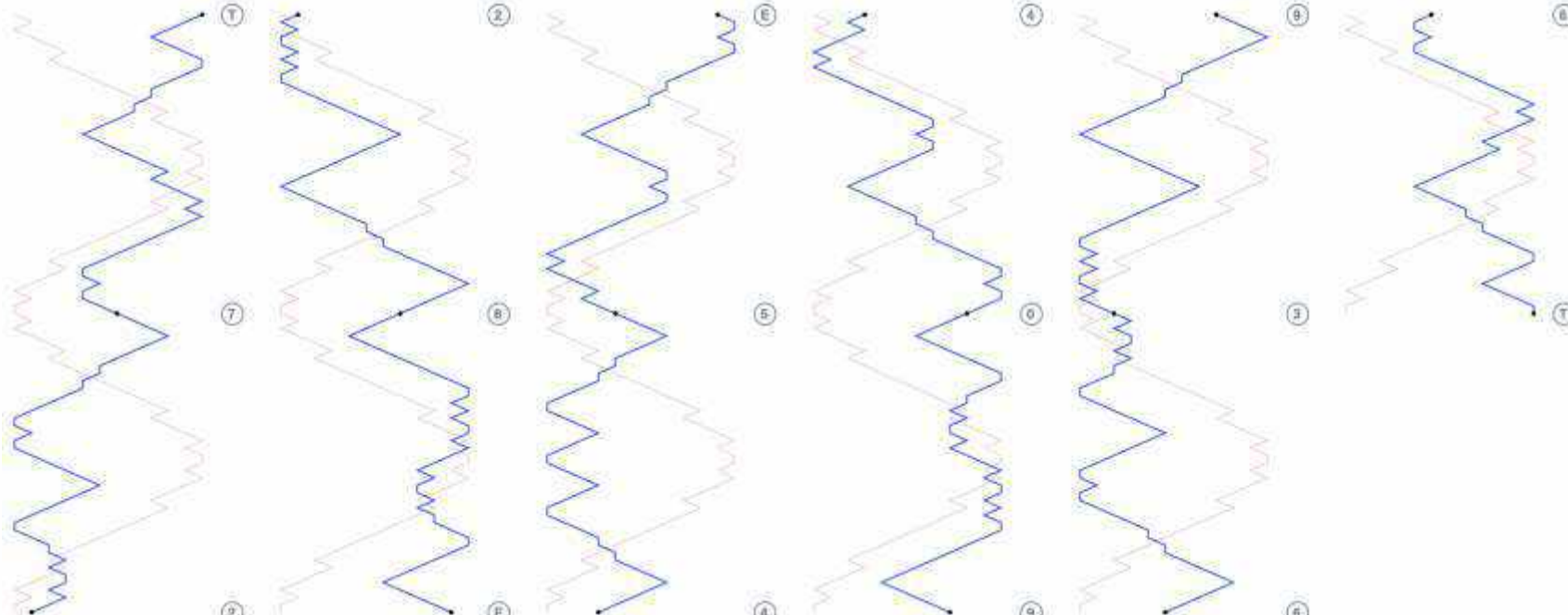
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Cyclic Six

- 234567890ET Slinky
- 4523ET90786 Deimos
- 534T20E8967 Phobos
- 24E5937T608 Maypole
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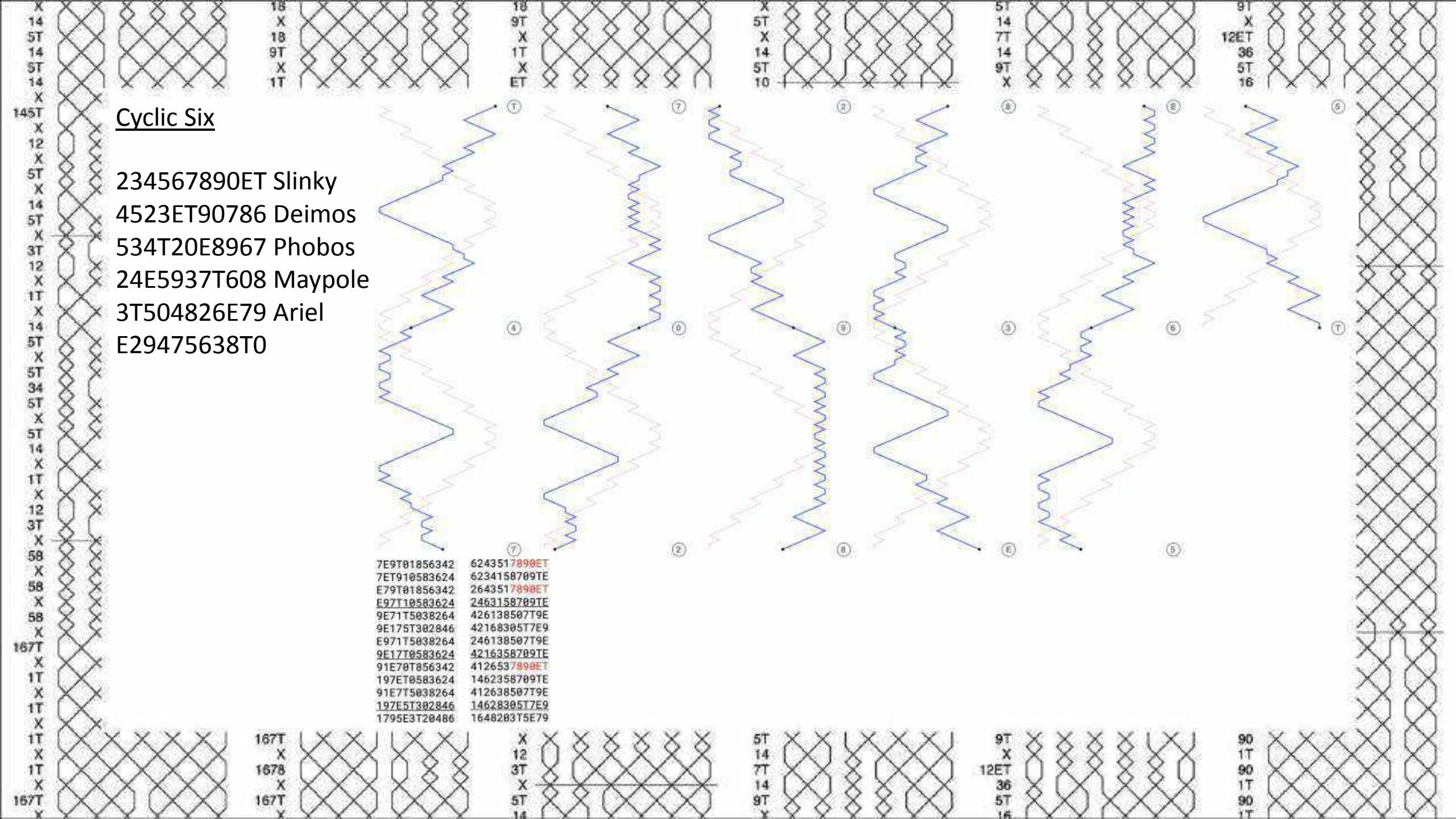
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Cyclic Six

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- 534T20E8967 Phobos
- 24E5937T608 Maypole
- 3T504826E79 Ariel
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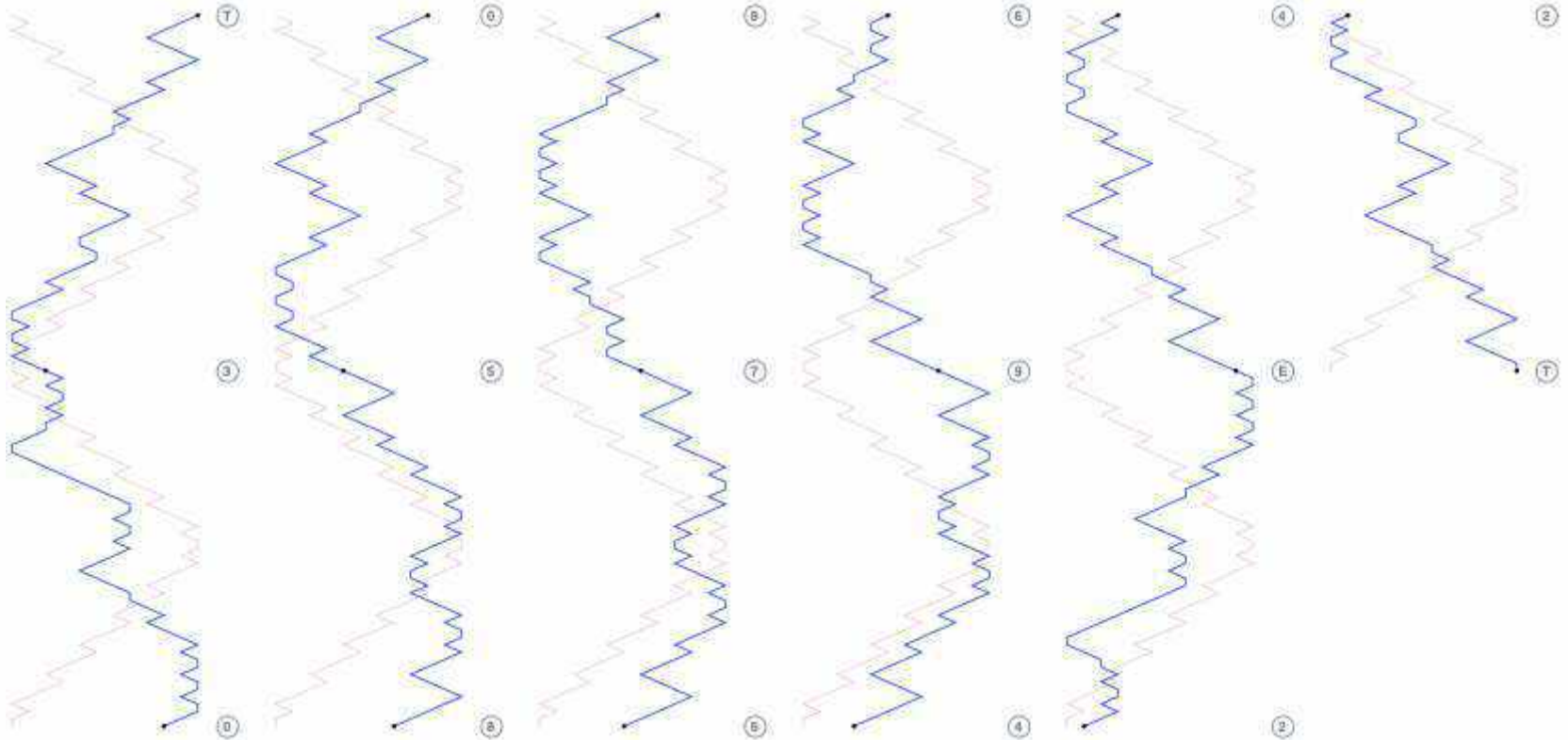
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Cyclic Six

- 234567890ET Slinky
- 4523ET90786 Deimos
- 534T20E8967 Phobos
- 24E5937T608 Maypole
- 3T504826E79 Ariel
- E29475638T0 Zanussi
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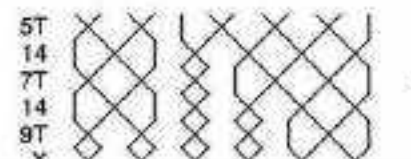
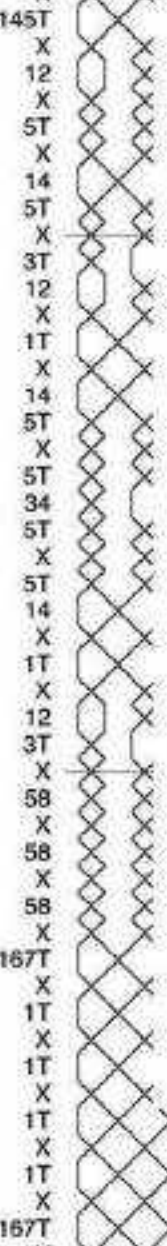
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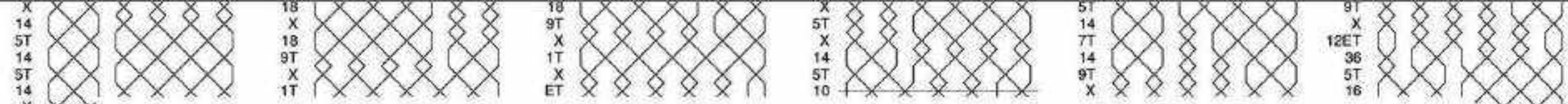
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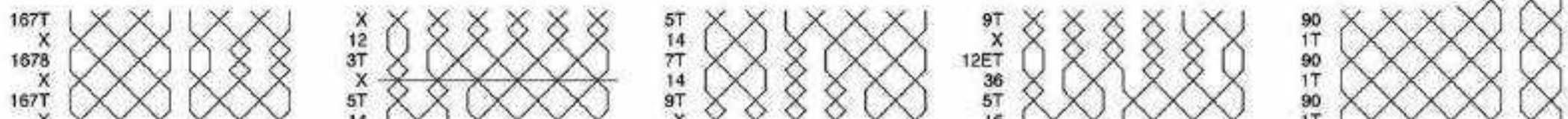
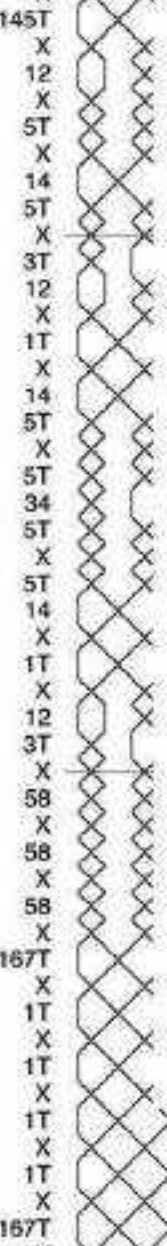
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- 24E5937T608 Maypole
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Cyclic Six

- 234567890ET Slinky
- 4523ET90786 Deimos
- 534T20E8967 Phobos
- 24E5937T608 Maypole
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Cyclic Six

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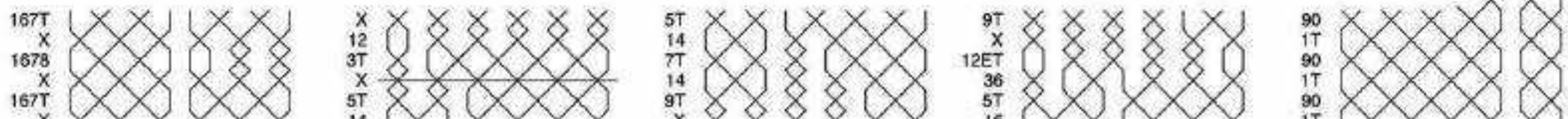
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11 Part

5040 Spliced Maximus (6m)

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- Deimos A 653412ET9078
- Phobos S 624T503817E9
- Glazgow LS 6315E4927T80
- Ariel S 6T204857391E
- Zanussi S 61E39574820T
- Zanussi S 60T827495E31
- Ariel S 6E91738504T2
- Glazgow LS 6807T92E4153
- Phobos S 697E8103T524
- Deimos A 67890ET12345

12-part.

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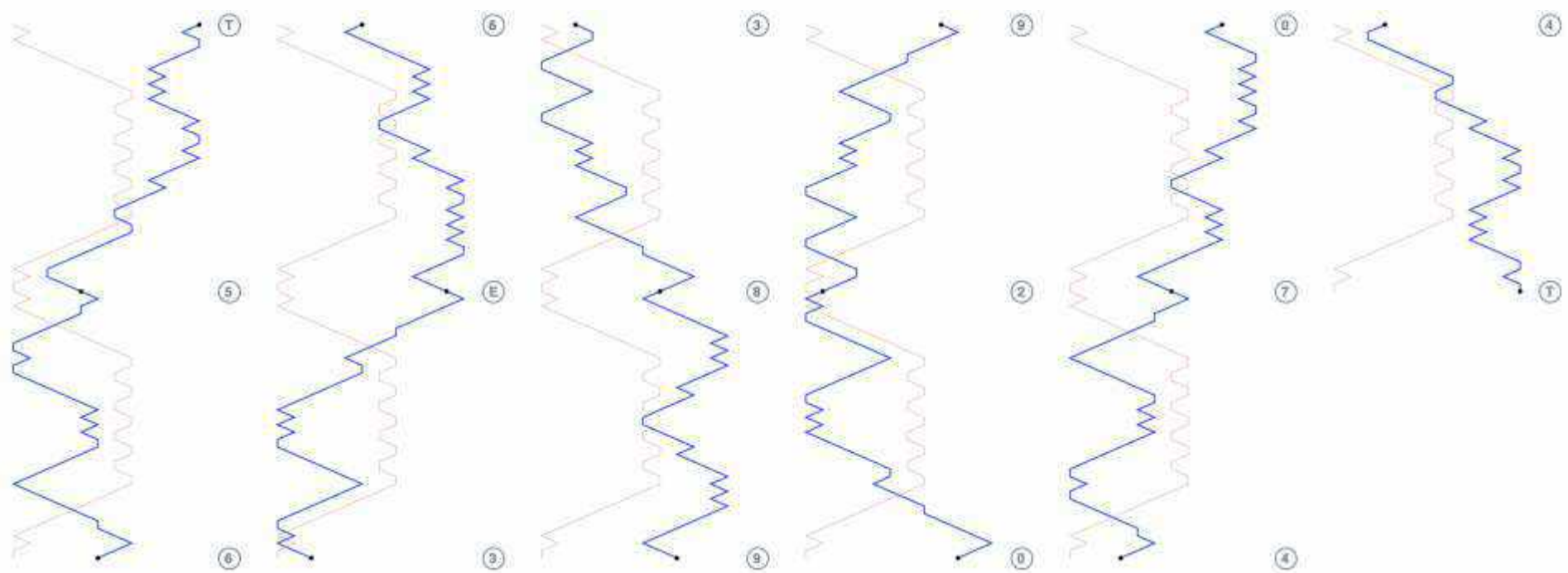
Moons of Jupiter

- 12-part structure
- 'Mega-tittums' section

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Callisto LA		1648203T5E79
Europa LTP		157392E4T608
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Callisto LA		1795E3T20486
Leda LA		108T6E492735
Chaldene LA		19E7T5038264
Io LA	10 bob	1T0E89674523
Plain B	18 bob	1ET907856423
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Amalthea LA	14 bob	1ET908273645
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Ganymede Diff	12 bob	8907E6T54123
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Plain B	10 bob	890ET1234567
12-part		

Moons of Jupiter - Callisto

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 61482305T7E9
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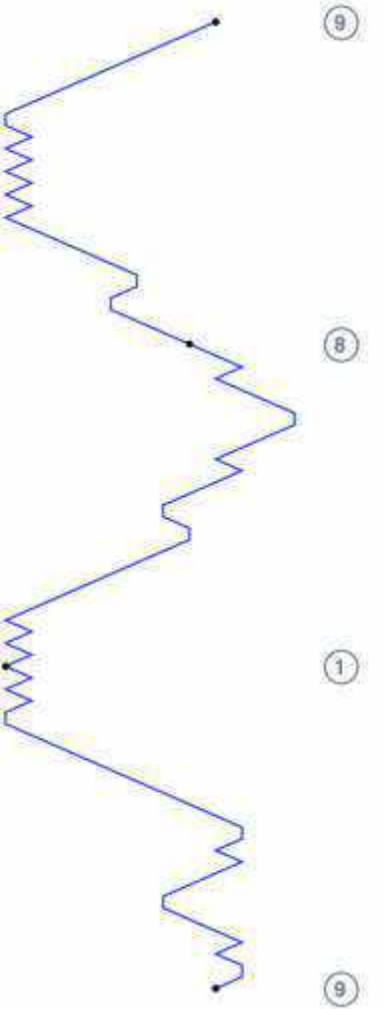
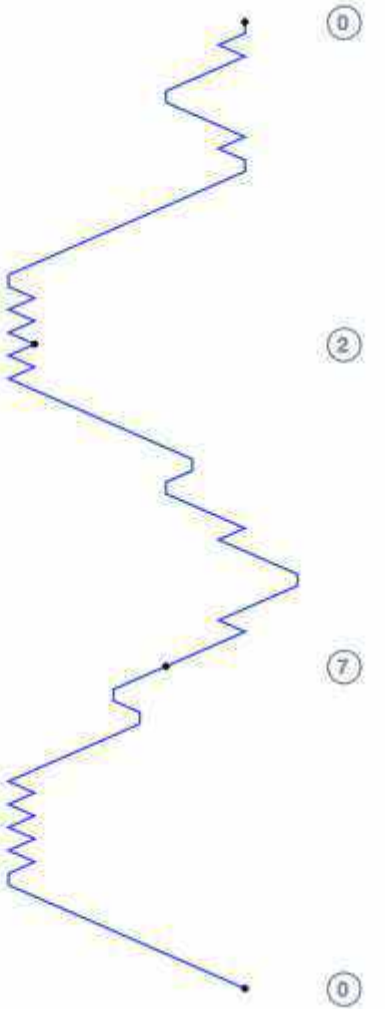
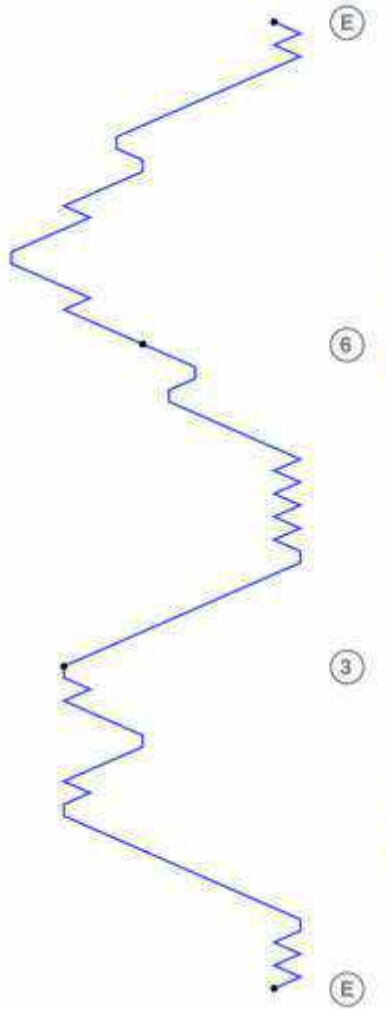
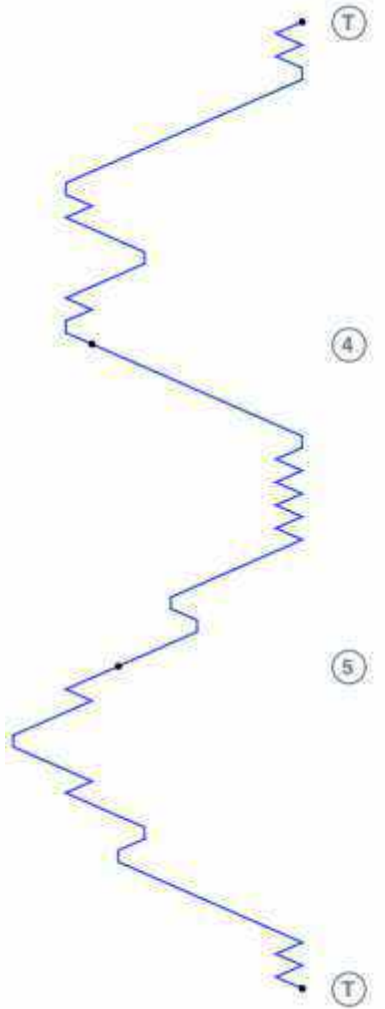
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Moons of Jupiter - Ganymede

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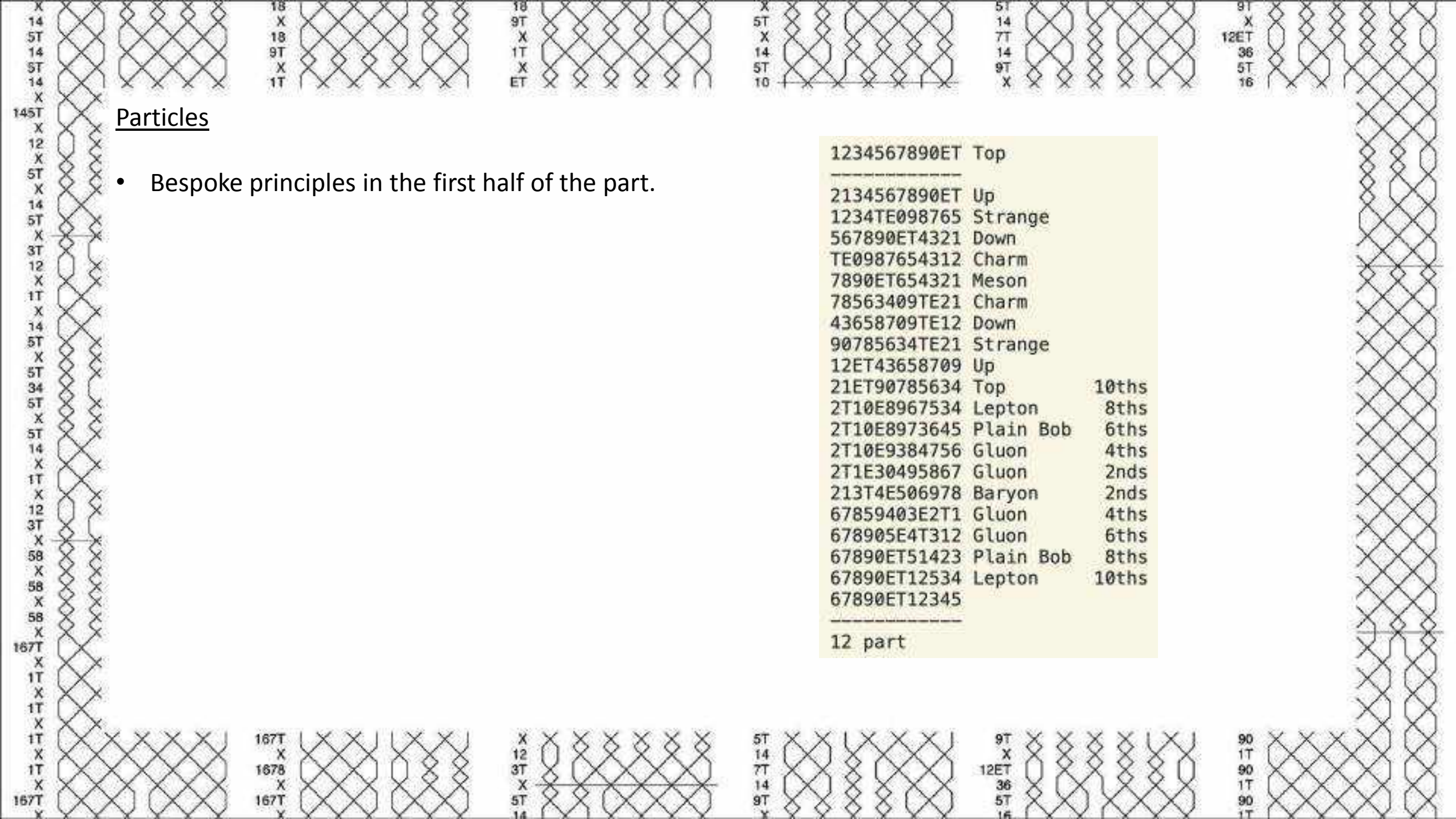
167T
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 1678
 X
 167T
 Y

X
 12
 3T
 X
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 14

5T
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 7T
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 9T
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9T
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 12ET
 36
 5T
 16

90
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Particles

- Bespoke principles in the first half of the part.

1234567890ET	Top	
2134567890ET	Up	
1234TE098765	Strange	
567890ET4321	Down	
TE0987654312	Charm	
7890ET654321	Meson	
78563409TE21	Charm	
43658709TE12	Down	
90785634TE21	Strange	
12ET43658709	Up	
21ET90785634	Top	10ths
2T10E8967534	Lepton	8ths
2T10E8973645	Plain Bob	6ths
2T10E9384756	Gluon	4ths
2T1E30495867	Gluon	2nds
213T4E506978	Baryon	2nds
67859403E2T1	Gluon	4ths
678905E4T312	Gluon	6ths
67890ET51423	Plain Bob	8ths
67890ET12534	Lepton	10ths
67890ET12345		

12 part		

14
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18
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18
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ET

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5T
10

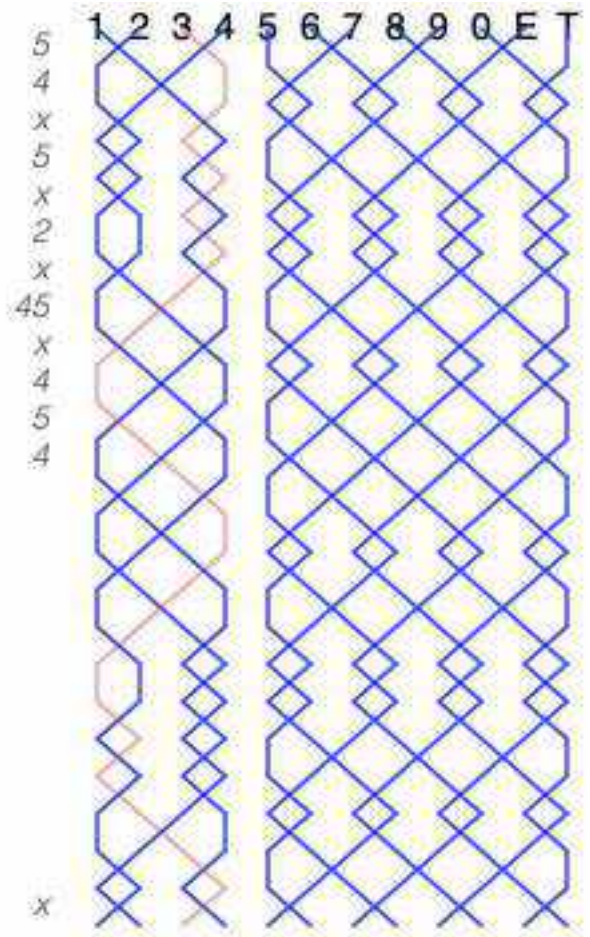
5T
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9T
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12ET
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5T
16

Particles - Top

145T
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X
1T
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12
3T
X
58
X
58
X
58
X
167T
X
1T
X
1T
X
1T
X
167T
X

1234567890ET
214357698E0T
24137596E8T0
423157698E0T
2413567890ET
4231658709TE
4213567890ET
2431658709TE
234168507T9E
32148605T7E9
312468507T9E
1342658709TE
1432567890ET
412357698E0T
42137596E8T0
243157698E0T
2341567890ET
3214658709TE
3241567890ET
2314658709TE
324168507T9E
23148605T7E9
213468507T9E
1243658709TE
2134567890ET



167T
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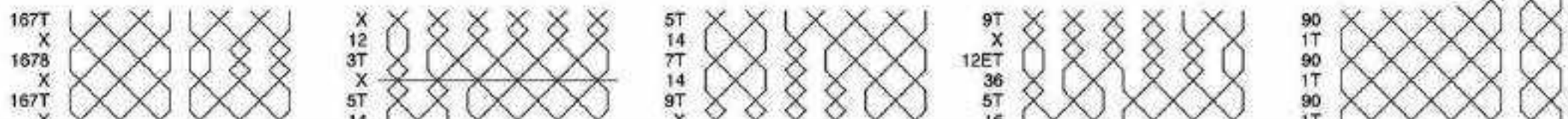
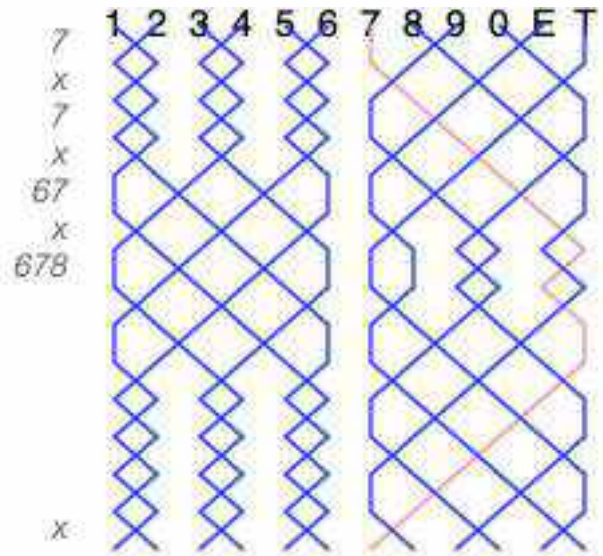
9T
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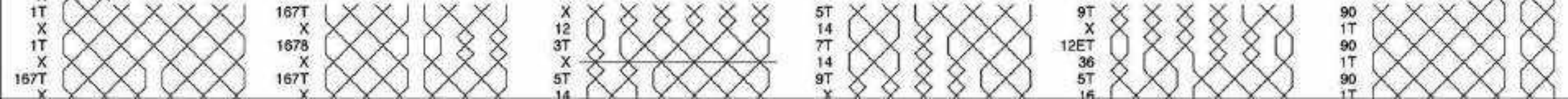
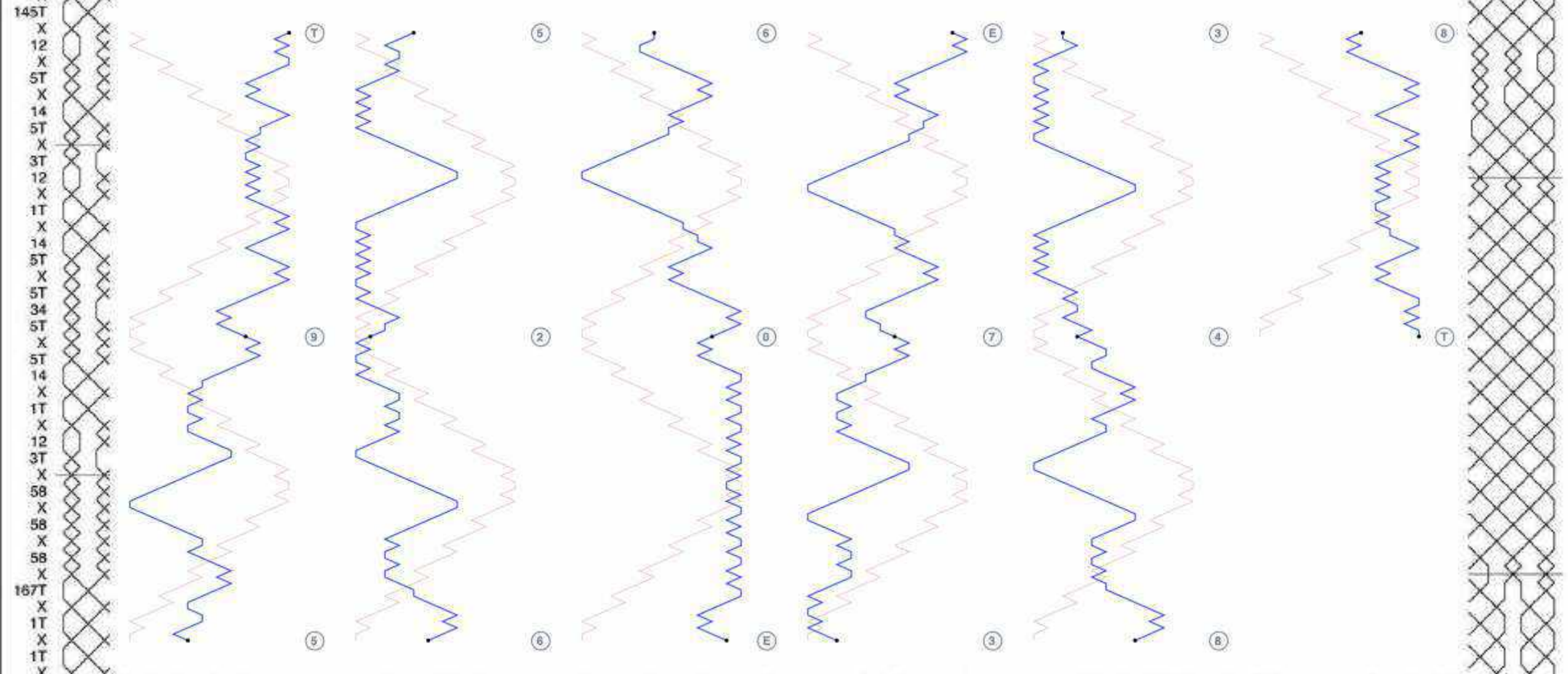
90
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Particles - Charm

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 12345697E8T0
 2143659E7T80
 123456E9T708
 132546ET9078
 315264TE0987
 351624TE9078
 536142ET0987
 563412E0T897
 6543210E8T79
 56341208E7T9
 654321807E9T
 5634128709ET
 6543217890TE

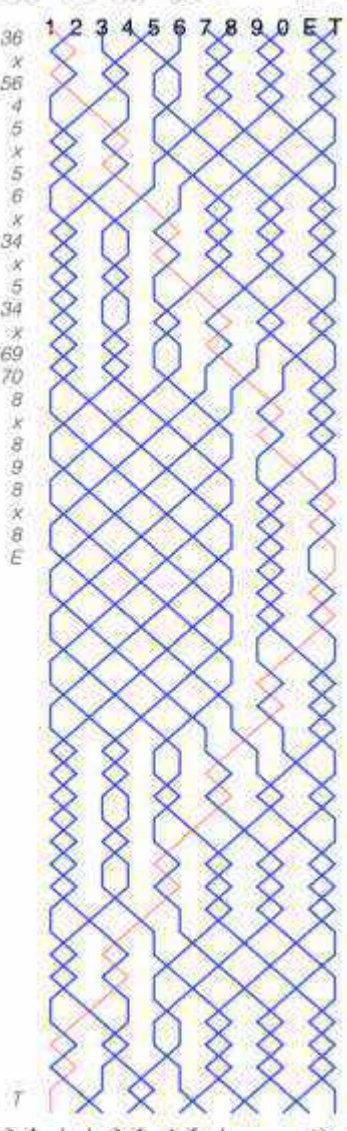




14 X
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 14 X
 5T X
 14 X
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 145T X
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 12 X
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 14 X
 5T X
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 3T X
 12 X
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 1T X
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 14 X
 5T X
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 34 X
 5T X
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 5T X
 14 X
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 1T X
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 12 X
 3T X
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 58 X
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 58 X
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 58 X
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 167T X
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 1T X
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 1T X
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 167T X

19E7T5038264
 91E75302846
 19TE57038264
 91ET57302846
 9E1T75038264
 E9T170583624
 9E1T07856342
 E9T108765432
 ET9018674523
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 ET0918674523
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 ET0987156342
 TE0978513624
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 TE0987516432
 ET9078561423
 E9T705864132
 9E7T50681423
 97E5T6084132
 795E6T804312
 7596E8T03421
 57698E0T4312
 567890ET3421
 658709TE4321
 68507T9E3412
 8605T7E94321
 806T5E793412
 08T6E5973142
 0T8E69571324
 T0E896753142
 TE0987651324
 ET9078615342
 TE0978165432
 ET9087614523
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 ET0971856342
 TE9017583624
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 TE0917583624
 T0E197856342
 0T1E98765432
 T0E189674523
 0T1E86947253
 01TE68492735
 10ET68947253
 01TE86492735
 10T8E6947253
 1T0E89674523

142638507T9E
 41236005T7E9
 143286507T9E
 41238605T7E9
 421368507T9E
 2431658709TE
 4213567890ET
 243157698E0T
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 86947253E01T
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 513279E4T608
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 13527496E8T0



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167T X
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