

Table 3. *Permutation rows. For explanation and interesting remarks read next page*

101	219	318	415	522	522	613	613	725	725	733	733
110	219	318	417	508	508	621	621	707	707	719	719
115	211	315	404	508	522	627	627	710	707	733	722
117	202	315	404	530	530	613	621	710	725	719	722
107	209	305	407	512	517	601	630	740	749	753	756
107	210	309	408	511	524	604	602	740	748	753	754
113	209	302	408	510	524	604	618	716	749	752	756
113	210	307	407	512	501	603	630	716	748	752	754
119	220	301	416	514	514	614	614	715	715	751	751
119	220	304	414	502	502	615	615	715	715	751	751
105	213	310	402	519	526	607	626	705	723	736	755
112	213	308	403	504	527	619	631	703	709	750	741
103	214	308	402	513	525	610	628	718	712	737	743
106	214	310	403	523	528	605	629	704	717	742	738
102	218	316	410	504	526	609	623	718	708	742	735
102	206	314	411	519	527	606	612	729	717	732	743
108	204	314	410	505	520	610	628	734	709	726	755
108	208	316	411	518	507	605	629	705	720	750	728
116	205	313	401	518	520	607	631	729	708	737	738
116	215	317	409	505	507	619	626	704	712	732	735
118	201	313	409	513	528	609	612	734	720	736	741
118	207	317	401	523	525	606	623	703	723	726	728
104	216	306	412	506	531	616	611	711	730	721	746
104	212	311	406	521	515	608	625	711	730	727	744
109	217	303	406	521	516	620	625	706	713	724	747
109	203	312	412	503	531	617	611	731	713	724	745
111	216	303	413	509	516	620	624	701	714	721	746
111	212	312	405	503	529	617	622	701	714	727	744
114	217	306	405	506	529	616	622	706	702	739	747
114	203	311	413	509	515	608	624	731	702	739	745

Table 3. *Permutation rows*

from: www.latinsquares5x5.wordpress.com : **How many structurally different latin squares order 5 do exist?** To be used additionally with table 1 and 2
(www.latinsquares5x5.files.wordpress.com/2015/07/latintables1.pdf)

This table shows the results of my permutation acts with the squares of the 1-group (the squares LS101-119). The third row has been kept on its place, the other rows have been permuted, mirror images have been avoided. Take for granted that permutation acts starting with squares of the 2-group (LS201-220), or any other group, give the same result (any doubt? just do it!).

If you count all the different squares in the table you arrive at 192. So, apart from the control factor in table 2 this is another evidence of the correctness of the number 192.

Table shows 5 differently colored parts. Squares in one part do not occur in another part. The part generated with square LS119 shows very exclusive, and not (yet) well understood behavior. Contrary to the uppermost part: All 24 squares in it possess the associative characteristic of a group in the algebraic sense (in table 2 these squares are shown in red numbers). The squares in the remaining parts are not associative, they are loops in the algebraic sense. For the scope of this paper these interesting observations are of no importance.