

Appendix 3. Detailed QCA results.

Qualitative comparative analysis (QCA) (Ragin 1987) was used to analyze the combination of social roles necessary for groups of five participants in a computer-based irrigation experiment to succeed, i.e., reach a certain amount of water extraction. We considered seven types of social roles: leader, knowledge-generator, connector, follower, moralist, enforcer, and observer. Crisp-set (csQCA) (Ragin 1987) and fuzzy-set (fsQCA) QCA (Ragin 2000) were used to analyze the presence and abundance of social roles in each group respectively. All analyses were conducted using the R Project (R Development Core Team, 2008) for Statistical Computing package, particularly applying the package QCA (Thiem and Dusa 2012).

Whereas fsQCA was applied to the abundance of each role in the groups, csQCA was applied to two levels of analysis: group and individual level. The conditions at the group level were the presence of each role in the groups. At the individual level we undertook two types of analyses using: i) the presence of each role in the different players' positions (positions A to E) and ii) each position independently. Table A3.1 shows the raw data used to perform the csQCA and fsQCA at the group level.

Table A3.1. Crisp- and fuzzy-values of all conditions and the outcome group extraction (EXT). Conditions are the social roles: L=Leader, K=Knowledge generator, C=Connector, F=Follower, M=Moralist, E=Enforcer, O=Observer.

Group	Outcome			Abundance of roles							Fuzzy-values						
	EXT	cs-value	fs-value	L	K	C	F	M	E	O	L	K	C	F	M	E	O
1	560	1	1	1	1	0	3	2	0	2	0.6	0.6	0	0.8	0.8	1	0.8
2	455	0	0.4	2	2	3	2	0	1	2	1	0.8	1	0.8	0	0.6	0.8
3	569	1	1	3	2	3	2	3	0	0	1	0.8	1	0.8	1	1	0
4	581	1	1	1	1	1	2	1	1	1	0.6	0.6	0.6	0.8	0.6	0.6	0.6
5	501	0	0.6	2	1	1	3	2	0	2	1	0.6	0.6	0.8	0.8	1	0.8
6	547	1	0.8	1	3	2	2	3	0	3	0.6	1	0.8	0.8	1	1	1
7	538	0	0.6	2	1	0	3	2	0	1	1	0.6	0	0.8	0.8	1	0.6
8	459	0	0.4	1	2	2	3	2	1	1	0.6	0.8	0.8	0.8	0.8	0.6	0.6
9	554	1	1	3	3	1	5	0	1	1	1	1	0.6	1	0	0.6	0.6
10	582	1	1	2	1	0	2	2	2	1	1	0.6	0	0.8	0.8	0.2	0.6
11	547	1	0.8	1	1	2	4	2	0	4	0.6	0.6	0.8	1	0.8	1	1
12	306	0	0.2	2	3	1	3	1	2	1	1	1	0.6	0.8	0.6	0.2	0.6
13	570	1	1	1	2	0	2	2	1	2	0.6	0.8	0	0.8	0.8	0.6	0.8
14	540	0	0.8	2	1	0	3	1	3	2	1	0.6	0	0.8	0.6	1	0.8
15	547	1	0.8	2	2	2	4	3	2	4	1	0.8	0.8	1	1	0.2	1
16	563	1	1	3	1	2	4	0	0	2	1	0.6	0.8	1	0	1	0.8
17	434	0	0.4	1	1	1	2	3	2	0	0.6	0.6	0.6	0.8	1	0.2	0
18	137	0	0	2	1	1	2	0	3	4	1	0.6	0.6	0.8	0	1	1
19	577	1	1	2	3	2	2	2	1	3	1	1	0.8	0.8	0.8	0.6	1
20	542	0	0.8	1	2	0	2	1	2	1	0.6	0.8	0	0.8	0.6	0.2	0.6
21	500	0	0.6	2	1	2	2	1	1	3	1	0.6	0.8	0.8	0.6	0.6	1
22	516	0	0.6	3	2	0	1	4	1	3	1	0.8	0	0.6	1	0.6	1
23	547	1	0.8	1	1	2	3	1	0	3	0.6	0.6	0.8	0.8	0.6	1	1

The core result of the QCA is the so-called truth-table. The truth-table list all possible combinations of the conditions and outcomes and shows how often they appear in the set of cases considered (i.e., consistency). The higher the value of consistency, the more cases or membership scores in the row agree in displaying the outcome. Tables A3.2, A3.4, A3.6 and A3.8 show the truth-table for the different QCA performed in this study: csQCA at the group level, fsQCA at the group level, csQCA for each position independently, and csQCA at the position level respectively. In addition to the sufficiency analysis that resulted in the truth-table, a necessity analysis was performed. Results of the sufficiency analysis are shown in Tables A3.3, A3.5, A3.7, and A3.9.

Crisp-set QCA at the group level

Table A3.2. Truth table of csQCA for the analysis of sufficiency for the group success. L=Leader, K=Knowledge generator, C=Connector, F=Follower, M=Moralist, E=Enforcer, O=Observer.

Conditions				Outcome	Number	Consistency	Cases
C	M	E	O	EXT			Group number
1	0	0	1	1	1	1.00	16
1	1	0	0	1	1	1.00	3
1	1	0	1	0	4	0.75	5,6,11,23
1	1	1	1	0	6	0.50	4,8,12,15,19,21
0	1	0	1	0	2	0.50	1,7
0	1	1	1	0	5	0.40	10,13,14,20,22
1	0	1	1	0	3	0.33	2,9,18
1	1	1	0	0	1	0.33	17

Table A3.3. Results of the csQCA for the analysis of necessity for the group success. L=Leader, K=Knowledge generator, C=Connector, F=Follower, M=Moralist, E=Enforcer, O=Observer.

	Consistency	Coverage
O	0.917	0.524
M+e	0.917	0.550
C+E	0.917	0.524
C+M	1.000	0.522

Fuzzy-set QCA at the group level

Table A3.4. Truth table of fsQCA for the analysis of sufficiency for the group success. L=Leader, K=Knowledge generator, C=Connector, F=Follower, M=Moralist, E=Enforcer, O=Observer.

Conditions							Outcome	Number	Consistency	Cases
L	K	C	F	M	E	O	EXT			Group number
1	1	0	1	1	1	1	1	5	1.00	1,7,13,14,22
1	1	1	1	1	1	0	1	1	1.00	3
1	1	1	1	1	1	1	1	8	0.96	4,5,6,8,11,19,21,23
1	1	0	1	1	0	1	1	2	0.94	10,20

1	1	1	1	1	0	1	1	2	0.87	12,15
1	1	1	1	0	1	1	0	4	0.83	2,9,16,18
1	1	1	1	1	0	-	0	1	0.78	17

Table A3.5. Results of the fsQCA for the analysis of necessity for the group success. L=Leader, K=Knowledge generator, C=Connector, F=Follower, M=Moralist, E=Enforcer, O=Observer.

	Consistency	Coverage		Consistency	Coverage
F	0.928	0.811	c+E+O	0.952	0.767
M+E	0.904	0.758	c+m+O	0.916	0.760
K+O	0.904	0.765	c+m+E	0.916	0.784
K+E	0.940	0.772	c+M+O	0.940	0.743
K+c	0.916	0.800	C+e+O	0.904	0.758
L+O	0.940	0.743	C+E+O	0.904	0.743
L+E	0.940	0.743	C+m+O	0.916	0.776
L+M	0.928	0.733	k+E+O	0.904	0.765
L+c	0.940	0.757	K+C+e	0.904	0.815
L+C	0.916	0.752	K+C+m	0.904	0.806
L+K	0.916	0.745	K+C+M	0.916	0.776
m+E+O	0.916	0.760	l+E+O	0.904	0.765
M+e+O	0.904	0.750			

Crisp-set QCA for each position independently

Table A3.6. Truth table of csQCA for the analysis of sufficiency for the group success at each position. L=Leader, K=Knowledge generator, C=Connector, F=Follower, M=Moralist, E=Enforcer, O=Observer.

Position A										
Conditions							Outcome	Number	Consistency	Cases
L	K	C	F	M	E	O	EXT			Group number
0	0		1	0	0	1	1	1	1.000	15
0	0		1	1	0	1	1	1	1.000	6
0	1		0	0	0	0	1	1	1.000	1
0	1		1	1	0	1	1	1	1.000	11
1	0		1	0	0	1	1	1	1.000	16
0	0		0	0	0	0	0	4	0.750	4,13,22,23
1	1		0	1	0	0	0	3	0.667	3,17,19
1	1		0	0	0	0	0	2	0.500	10,12
0	0		1	0	0	0	0	4	0.250	5,7,9,20
0	0		1	1	0	0	0	1	0.000	14
0	1		0	1	0	0	0	1	0.000	8
0	1		1	0	1	1	0	1	0.000	18
1	1		0	0	1	1	0	1	0.000	2
1	1		0	1	0	1	0	1	0.000	21

Position B				
Conditions	Outcome	Number	Consistency	Cases

L	K	C	F	M	E	O	EXT			Group number
0	0	0	1	1	0	1	1	1	1.000	1
0	0	1	1	1	0	0	1	1	1.000	3
0	1	0	1	0	0	0	1	1	1.000	4
1	1	0	1	0	0	0	1	1	1.000	9
1	1	1	1	1	0	1	1	1	1.000	15
0	0	1	1	0	0	1	0	4	0.750	2,11,19,23
0	0	0	1	1	0	0	0	3	0.667	10,13,17
1	0	0	0	1	0	1	0	2	0.500	6,22
1	0	1	1	0	0	0	0	2	0.500	5,16
0	0	0	1	0	0	0	0	2	0.000	8,21
0	1	0	1	0	0	1	0	1	0.000	12
1	0	0	0	0	0	1	0	1	0.000	18
1	0	0	0	0	1	1	0	1	0.000	14
1	0	0	1	1	0	0	0	1	0.000	7
1	1	0	0	0	0	1	0	1	0.000	20

Position C

Conditions							Outcome	Number	Consistency	Cases
L	K	C	F	M	E	O	EXT			Group number
1	0	0	0	1	0	1	1	2	1.000	1,4
0	0	0	1	1	0	1	1	1	1.000	10
0	0	1	1	0	0	1	1	1	1.000	11
0	1	1	1	0	0	1	1	1	1.000	6
1	0	1	1	0	0	0	1	1	1.000	16
1	1	1	1	0	0	0	1	1	1.000	9
1	1	0	0	1	0	1	0	5	0.600	5,7,13,19,23
1	0	0	1	1	0	1	0	2	0.500	15,22
0	0	1	1	0	0	0	0	3	0.333	2,3,8
0	0	0	0	0	0	0	0	2	0.000	17,18
0	0	0	1	0	0	0	0	1	0.000	20
0	0	0	1	0	0	1	0	1	0.000	14
0	0	1	0	0	0	1	0	1	0.000	21
1	1	0	0	1	1	0	0	1	0.000	12

Position D

Conditions							Outcome	Number	Consistency	Cases
L	K	C	F	M	E	O	EXT			Group number
0	1	0	1	0	0	1	1	2	1.000	13,16
0	0	1	1	1	1	1	1	1	1.000	15
0	1	1	0	0	0	0	1	1	1.000	6
1	0	0	0	0	1	0	1	1	1.000	10
1	0	0	0	1	0	1	1	1	1.000	11
1	0	1	0	1	0	0	1	1	1.000	3
1	1	0	1	0	0	1	1	1	1.000	9
0	0	1	1	0	0	1	0	3	0.667	19,21,23
0	0	0	1	0	0	0	0	2	0.500	1,7

0	0	1	1	0	0	0	0	2	0.500	4,12
0	0	0	0	1	1	0	0	1	0.000	20
0	0	0	1	1	0	1	0	1	0.000	5
0	0	1	1	0	1	1	0	1	0.000	15
0	0	1	1	1	1	0	0	1	0.000	17
1	0	1	0	0	0	0	0	1	0.000	2
1	1	0	0	0	1	0	0	1	0.000	14
1	1	0	0	1	0	0	0	1	0.000	22
1	1	1	0	1	0	0	0	1	0.000	8
Position E										
Conditions							Outcome	Number	Consistency	Cases
L	K	C	F	M	E	O	EXT			Group number
0	0		1	0	0	0	1	3	1.000	1,11,23
0	1		0	1	0	0	1	1	1.000	6
1	1		0	0	0	0	1	1	1.000	3
0	0		0	0	1	0	0	4	0.750	4,10,13,17
0	1		0	0	1	0	0	3	0.667	15,19,20
0	0		0	0	0	0	0	3	0.333	5,7,16
0	0		1	0	1	0	0	3	0.333	9,12,14
0	0		1	0	1	1	0	1	0.000	8
0	1		0	0	0	0	0	1	0.000	2
0	1		0	1	1	1	0	1	0.000	22
1	0		0	0	1	0	0	1	0.000	21
1	0		0	0	1	1	0	1	0.000	18

Table A3.7. Results of the csQCA for the analysis of necessity for the group success. L=Leader, K=Knowledge generator, C=Connector, F=Follower, M=Moralist, E=Enforcer, O=Observer.

Position A					
	Consistency	Coverage		Consistency	Coverage
A.e	1.000	0.571	A.I+A.k+A.M	0.917	0.550
A.f+A.O	0.917	0.611	A.I+A.K+A.O	1.000	0.522
A.F+A.o	1.000	0.571	A.I+A.K+A.F	1.000	0.522
A.k+A.o	0.917	0.579	A.L+A.m+A.O	1.000	0.571
A.k+A.f	0.917	0.524	A.L+A.M+A.o	0.917	0.524
A.K+A.m	0.917	0.524	A.L+A.F+A.m	1.000	0.545
A.I+A.o	0.917	0.550	A.L+A.k+A.O	0.917	0.524
A.I+A.M+A.O	0.917	0.524	A.L+A.k+A.m	0.917	0.524
A.I+A.f+A.m	1.000	0.522	A.L+A.k+A.M	0.917	0.524
A.I+A.F+A.M	0.917	0.550	A.L+A.k+A.F	0.917	0.524
Position B					
	Consistency	Coverage		Consistency	Coverage
B.e	1.000	0.545	B.I+B.C+B.o	0.917	0.611
B.F	0.917	0.611	B.I+B.C+B.O	0.917	0.524
B.F*B.e	0.917	0.611	B.I+B.C+B.m	0.917	0.550
B.k+B.o	0.917	0.550	B.I+B.C+B.M	0.917	0.579

B.L+B.k	0.917	0.524	B.l+B.C+B.f	0.917	0.524
B.c+B.M+B.O	0.917	0.524	B.l+B.k+B.M	0.917	0.524
B.C+B.M+B.o	1.000	0.632	B.l+B.k+B.C	0.917	0.524
B.C+B.f+B.o	0.917	0.524	B.l+B.K+B.o	0.917	0.579
B.k+B.m+B.O	1.000	0.522	B.l+B.K+B.O	0.917	0.550
B.k+B.c+B.O	1.000	0.522	B.l+B.K+B.m	0.917	0.550
B.k+B.c+B.M	1.000	0.522	B.l+B.K+B.M	0.917	0.579
B.k+B.C+B.m	1.000	0.522	B.l+B.K+B.f	0.917	0.550
B.K+B.M+B.O	0.917	0.579	B.l+B.K+B.c	0.917	0.524
B.K+B.C+B.M	1.000	0.632	B.l+B.K+B.C	0.917	0.611
B.l+B.m+B.O	1.000	0.545	B.L+B.M+B.O	0.917	0.550
B.l+B.M+B.o	1.000	0.600	B.L+B.C+B.o	0.917	0.524
B.l+B.f+B.m	0.917	0.524	B.L+B.C+B.M	0.917	0.579
B.l+B.c+B.O	0.917	0.524	B.K+B.c+B.m+B.o	1.000	0.522
B.l+B.c+B.M	0.917	0.524	B.L+B.c+B.m+B.o	1.000	0.522

Position C

	Consistency	Coverage		Consistency	Coverage
C.e	1.000	0.545	C.L+C.C.	0.917	0.611
C.m+C.O	1.000	0.545	C.k+C.f+C.m	1.000	0.522
C.F+C.O	1.000	0.600	C.k+C.C+C.f	1.000	0.522
C.F+C.M	1.000	0.600	C.K+C.M+C.o	0.917	0.550
C.c+C.m	1.000	0.522	C.k+C.c+C.o	0.917	0.524
C.c+C.F	1.000	0.545	C.l+C.M+C.o	1.000	0.522
C.C+C.O	1.000	0.632	C.l+C.f+C.o	0.917	0.524
C.C+C.M	1.000	0.632	C.l+C.f+C.m	0.917	0.524
C.k+C.O	0.917	0.524	C.l+C.c+C.o	1.000	0.522
C.L+C.O	0.917	0.647	C.l+C.C+C.f	0.917	0.524
C.L+C.F	1.000	0.600	C.L+C.k+C.m	1.000	0.522

Position D

	Consistency	Coverage		Consistency	Coverage
D.e+D.o	0.917	0.524	D.c+D.F+D.o	1.000	0.522
D.e+D.O	0.917	0.579	D.c+D.F+D.m	0.917	0.524
D.m+D.O	0.917	0.611	D.c+D.F+D.M	0.917	0.524
D.m+D.e	0.917	0.550	D.C+D.E+D.O	0.917	0.550
D.M+D.e	0.917	0.550	D.C+D.f+D.O	0.917	0.524
D.f+D.e	0.917	0.550	D.C+D.F+D.O	0.917	0.579
D.f+D.m	0.917	0.550	D.C+D.F+D.E	0.917	0.524
D.F+D.e	0.917	0.550	D.C+D.F+D.M	0.917	0.524
D.c+D.e	0.917	0.550	D.K+D.F+D.M	0.917	0.524
D.C+D.e	0.917	0.550	D.K+D.c+D.F	0.917	0.524
D.C+D.m	0.917	0.579	D.K+D.C+D.o	0.917	0.524
D.k+D.O	0.917	0.579	D.K+D.C+D.f	0.917	0.550
D.k+D.e	1.000	0.545	D.l+D.E+D.O	0.917	0.579
D.k+D.m	1.000	0.571	D.l+D.M+D.O	0.917	0.550
D.k+D.F	0.917	0.579	D.l+D.M+D.E	0.917	0.524
D.k+D.c	0.917	0.524	D.l+D.f+D.O	1.000	0.522
D.l+D.e	0.917	0.524	D.l+D.F+D.M	0.917	0.550

D.l+D.c	0.917	0.550	D.l+D.C+D.O	0.917	0.550
D.l+D.k	0.917	0.579	D.l+D.K+D.M	0.917	0.524
D.L+D.e	0.917	0.579	D.l+D.K+D.f	1.000	0.522
D.L+D.m	0.917	0.579	D.L+D.C+D.O	0.917	0.550
D.L+D.F	0.917	0.524	D.L+D.K+D.C	0.917	0.579
D.m+D.E+D.o	0.917	0.524	D.K+D.F+D.E+D.O	0.917	0.524
D.F+D.M+D.o	1.000	0.522	D.K+D.c+D.M+D.O	0.917	0.550
D.F+D.M+D.E	0.917	0.524	D.K+D.C+D.M+D.E	0.917	0.524
D.c+D.m+D.E	0.917	0.524	D.L+D.K+D.c+D.O	0.917	0.550
D.c+D.f+D.O	0.917	0.550			
Position E					
	Consistency	Coverage		Consistency	Coverage
E.o	1.000	0.600	E.k+E.f	1.000	0.522
E.m	0.917	0.524	E.k+E.M+E.E	0.917	0.524
E.l	0.917	0.550	E.K+E.F+E.E	0.917	0.550
E.m*E.o	0.917	0.579	E.L+E.K+E.E	0.917	0.524
E.l*E.o	0.917	0.611	E.L+E.F+E.M+E.E	0.917	0.579
E.f+E.e	0.917	0.579			

Crisp-set QCA at the position level

Table A3.8. Truth table of csQCA for the analysis of sufficiency for the group success.
 Out=Outcome, n=Number of cases, Const=Consistency, L=Leader, K=Knowledge generator,
 C=Connector, F=Follower, M=Moralist, E=Enforcer, O=Observer.

Position																				Out	n	Cons.	Cases	
A					B					C					D									E
Condition																				EXT			Group number	
L	M	E	O	L	M	E	O	L	M	E	O	L	M	E	O	L	M	E	O					
0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	1	0	1	1	1	1	4
0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	1	0	0	0	0	1	1	1	1	23
0	0	0	0	0	1	0	0	1	1	0	1	0	0	0	1	0	0	1	0	1	1	1	1	13
0	0	0	0	0	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1
0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	1	1	1	1	9
0	0	0	1	1	1	0	1	1	1	0	1	0	1	1	1	0	0	1	0	1	1	1	1	15
0	1	0	1	0	0	0	1	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1	1	11
0	1	0	1	1	1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1	1	1	1	6
1	0	0	0	0	1	0	0	0	1	0	1	1	0	1	0	0	0	1	0	1	1	1	1	10
1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	16
1	1	0	0	0	0	0	1	1	1	0	1	0	0	0	1	0	0	1	0	1	1	1	1	19
1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	1	0	0	0	1	1	1	1	3
0	0	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	0	0	0	0	1	0	0	5
0	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	0	0	1	0	0	1	0	0	20

0	0	0	0	1	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	1	0	7	
0	0	0	0	1	1	0	1	1	1	0	1	1	1	0	0	0	1	1	1	0	1	0	22
0	0	1	1	1	0	0	1	0	0	0	0	0	0	1	1	1	0	1	1	0	1	0	18
0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	8
0	1	0	0	1	0	1	1	0	0	0	1	1	0	1	0	0	0	1	0	0	1	0	14
1	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0	0	1	0	12
1	0	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2
1	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	1	0	17
1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	1	0	21

Table A3.9. Results of the csQCA for the analysis of necessity for the group success. To simplify the table, the role of observer and the role of enforcer in positions A, B, and C were not included. Cons.=Consistency, Cov.=Coverage, L=Leader, K=Knowledge generator, C=Connector, F=Follower, M=Moralist, E=Enforcer, O=Observer, A.=Player in position A, B.=Player in position B, C.=Player in position C, D.=Player in position D, E.=Player in position E.

	Cons.	Cov.		Cons.	Cov.		Cons.	Cov.
E.m	0.917	0.524	B.l+C.L	0.917	0.579	A.l+C.L+D.M	0.917	0.55
E.l	0.917	0.55	B.L+D.E	0.917	0.524	A.l+B.l+E.E	1	0.522
C.E	1	0.545	A.l+D.E	0.917	0.524	A.l+B.L+E.E	0.917	0.524
B.E	1	0.545	A.l+D.m	0.917	0.524	A.l+B.L+D.L	0.917	0.579
A.E	1	0.571	A.L+D.E	0.917	0.579	A.l+B.L+C.l	0.917	0.524
C.E*E.m	0.917	0.55	D.m+E.L+E.E	0.917	0.524	A.L+D.m+E.E	0.917	0.524
C.E*E.l	0.917	0.579	D.m+D.E+E.L	0.917	0.579	A.L+D.m+D.E	0.917	0.579
B.E*E.m	0.917	0.55	D.l+E.L+E.E	0.917	0.524	A.L+D.l+E.E	0.917	0.579
B.E*E.l	0.917	0.579	D.l+D.E+E.E	0.917	0.55	A.L+D.l+D.m	0.917	0.55
B.E*C.E	1	0.571	D.l+D.m+E.L	0.917	0.55	A.L+D.l+D.M	0.917	0.524
A.E*E.m	0.917	0.579	D.l+D.M+E.E	1	0.545	A.L+C.L+E.M	0.917	0.611
A.E*E.l	0.917	0.579	D.l+D.M+D.E	0.917	0.524	A.L+C.L+D.m	0.917	0.55
A.E*C.E	1	0.6	C.L+D.m+E.L	0.917	0.579	A.L+C.L+D.M	0.917	0.55
A.E*B.E	1	0.6	C.L+D.M+E.E	0.917	0.524	A.L+C.L+D.l	0.917	0.55
B.E*C.E*E.m	0.917	0.579	C.L+D.M+E.M	0.917	0.611	A.L+B.l+E.E	0.917	0.55
B.E*C.E*E.l	0.917	0.611	C.L+D.M+D.E	0.917	0.55	A.L+B.L+D.m	0.917	0.524
A.E*C.E*E.m	0.917	0.611	C.L+D.l+D.M	0.917	0.55	A.L+B.L+D.l	0.917	0.524
A.E*C.E*E.l	0.917	0.611	B.l+EM+E.E	0.917	0.55	A.L+B.L+C.L	0.917	0.524
A.E*B.E*E.m	0.917	0.611	B.l+D.E+E.E	0.917	0.524	C.L+E.L+E.M+E.E	0.917	0.524
A.E*B.E*E.l	0.917	0.611	B.l+D.M+E.E	0.917	0.55	C.L+D.E+E.L+E.M	0.917	0.55
A.E*B.E*C.E	1	0.632	B.l+D.L+E.E	0.917	0.55	C.L+D.l+D.E+E.L	0.917	0.55
A.E*B.E*C.E*E.m	0.917	0.647	B.l+C.l+E.E	0.917	0.55	B.l+D.L+D.E+E.M	0.917	0.55
A.E*B.E*C.E*E.l	0.917	0.647	B.L+D.m+E.L	0.917	0.55	B.l+D.L+D.M+E.M	0.917	0.55
D.E+E.E	1	0.522	B.L+D.l+E.E	0.917	0.524	B.l+C.l+D.L+D.E	0.917	0.55
D.m+E.E	0.917	0.611	B.L+D.l+D.M	0.917	0.524	B.l+C.l+D.L+D.M	0.917	0.524
D.m+D.E	0.917	0.55	B.L+C.L+D.M	0.917	0.55	B.L+D.l+D.E+E.L	0.917	0.55
D.M+D.E	0.917	0.55	A.l+EL+E.E	0.917	0.524	B.L+C.L+E.L+E.E	0.917	0.524
D.l+D.E	0.917	0.524	A.l+D.E+E.E	0.917	0.55	B.L+C.L+D.E+E.L	0.917	0.55
D.L+D.E	0.917	0.579	A.l+D.M+E.E	0.917	0.524	A.l+B.L+D.E+E.L	0.917	0.55
D.L+D.m	0.917	0.579	A.l+D.l+E.E	0.917	0.524	A.l+B.L+D.M+D.E	0.917	0.579
C.l+D.m	0.917	0.55	A.l+D.l+E.L	0.917	0.524	A.L+B.l+D.E+E.M	0.917	0.55

C.I+D.I	0.917	0.524	A.I+D.I+D.E	0.917	0.524	A.L+B.I+D.M+E.M	0.917	0.579
C.L+E.E	0.917	0.688	A.I+D.I+D.M	0.917	0.524	A.L+B.I+D.L+E.M	0.917	0.611
C.L+D.E	0.917	0.611	A.I+D.L+E.E	0.917	0.579	A.L+B.I+D.L+D.E	0.917	0.55
C.L+D.L	0.917	0.611	A.I+C.I+E.E	0.917	0.524	A.L+B.I+D.L+D.M	0.917	0.55
B.I+D.E	0.917	0.579	A.I+C.L+E.E	0.917	0.524	A.L+B.I+C.I+D.E	0.917	0.579
B.I+D.m	0.917	0.579	A.I+C.L+E.L	0.917	0.55	A.L+B.I+C.I+D.M	0.917	0.524
B.I+D.I	0.917	0.55	A.I+C.L+D.E	0.917	0.55	A.L+B.I+C.I+D.L	0.917	0.55

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