Shinagawa coefficients for midpoints on the Euler Line (2)
Last update 01/25/2018

Column 1 shows triangle centers X(k) on the Euler line. Column 2 shows pairs of X(i) and X(j) on the Euler line, represented as (i, j), such that X(k) is the midpoint of X(i) and X(j). G(a,b,c) and H(a,b,c) are Shinagawa coefficients of X(k), as introduced in Notations and Coordinates near the top of ETC.

Point X(k)	(i, j)such that X(k)=midpoint(X(i), X(j))	G(a, b, c)	H(a, b, c)
X(2)	(3, 381), (4, 376), (5, 549), (20, 3543), (21,6175), (23,10989), (140, 547), (382, 15681), (384, 7924), (428, 7667), (548, 14893), (550, 15687), (631, 5071), (858, 7426), (1003, 7841), (1012,6925), (1113, 1114), (1656, 15694), (3090, 15702), (3091, 15692), (3146, 15683),(3524, 3545), (3526, 15703), (3530, 11737), (3534, 3830), (3628, 10124), (3839, 10304), (3843, 14093), (3845, 8703), (3850, 14891), (3851, 15700), (3853, 15691), (3855, 15715), (3858, 15714), (3860, 15759), (4187, 6903), (5054, 5055), (5056, 15721), (5066, 12100), (5070, 15723), (5072, 15718), (5077, 11159), (6656, 6661), (7734, 10128), (7833, 11361), (8352, 8598), (8356, 8370), (8360, 8368), (8597, 9855), (10109, 11812), (10224, 15330), (11001, 15682), (11286, 11287), (11539, 15699), (12101, 15690), (14269, 15688), (14807, 15158), (14808, 15159), (15154, 15155), (15156, 15157)	1	0
X(3)	(2, 376), (4, 20), (5, 550), (21, 3651), (22, 378), (23, 7464), (26, 12084),	1	- 1

	(140, 548), (186, 2071), (186, 7488), (381, 3534), (382, 1657), (411, 6906), (546, 12103), (549, 8703), (631, 3522), (858, 10295), (1656, 15696), (1658,11250), (3146, 3529), (3153, 13619), (3516, 9715), (3520, 7488), (3523, 3528), (3524, 10304), (3543, 11001), (3627, 15704), (3830,15681), (4189, 6876), (4190, 6899), (5054, 15688), (5055, 15689), (5066, 15691), (5071, 15697), (5073, 15684), (5999, 11676), (6240, 12225), (6827, 6948), (6836, 6885), (6836, 6934), (6850, 6868), (6851, 6869), (6905, 6909), (6925, 6938), (7387, 12085), (10224, 13406), (10226, 15331), (12086, 12088), (14269, 15693), (14807, 15160), (14808, 15161), (14891, 15759)		
X(4)	(2, 3543), (3, 382), (5,3627), (20, 3146), (23, 7488), (23, 10296), (376, 15682), (381, 3830), (546, 3853), (1657, 5073), (1885, 3575), (3843, 5076), (3845, 15687), (3861, 12102), (6756, 13488), (7553, 12605), (10151, 13473), (12101, 14893), (14807, 14808), (15640, 15683)	0	1
X(5)	(2, 381), (3, 4), (20, 382), (23, 7574), (140, 546), (376, 3830), (403, 2072), (442, 6841), (468, 10297), (547, 5066), (548, 3853), (549, 3845), (550, 3627), (631, 3843), (632, 3858), (858, 11799), (1012, 6923), (1368, 1596), (1594, 10024), (1595, 6823), (1598, 6643), (1656, 3091), (1657, 3146), (1907, 6823), (2070, 3153), (2070, 7488), (3090, 3851), (3149, 6928), (3522, 5076), (3524, 14269), (3526, 3832),	1	1

	(3529, 5073), (3530, 3861), (3534, 3543), (3545, 5055), (3549, 7507), (3575, 12605), (3628, 3850), (3839, 5054), (3855, 5070), (3860, 10124), (5056, 5072), (5068, 5079), (6639, 7545), (6756, 12362), (6816, 7529), (6826, 6913), (6830, 6980), (6831, 6842), (6893, 6918), (6911, 6929), (6941, 6971), (7387, 14790), (7391, 12083), (7399, 7403), (8703, 15687), (10109, 11737), (10151, 10257), (10224, 13406), (12100, 14893), (13371, 15761), (14807, 15154), (14808, 15155)		
X(20)	(2, 15683), (3, 1657), (4, 3529), (376, 11001), (381, 15685), (550, 15704), (2071, 7488), (3146, 5059), (3534,15681) (15160, 15161)	1	- 2
X(22)	(3, 12083,), (378, 12082)	E+2F	-2E-2F
X(23)	(2070, 5899)	-E-4F	4E+4F
X(25)	(1370, 7500), (6644, 7530)	F	- E-F
X(26)	(3, 7387), (9909, 14070)	E+4F	-3E-4F
X(140)	(2, 549), (3, 5), (3, 7404), (4, 550), (20, 3627), (376, 3845), (381, 8703), (382, 15704), (427, 7502),(442, 5428), (546, 548), (547, 12100), (631, 632), (858, 7575), (1656, 15712), (1658, 13371), (2071, 11563), (3522, 3858), (3524, 15699), (3528, 3857), (3530, 3628), (3534, 15687), (3830, 15686), (3853, 12103), (5054, 11539), (5071, 15711) (5498, 10125), (6823, 7526), (7488, 7575), (7667, 13490) (10109, 14891), (10124, 11812), (10125, 10204), (10127, 10691),	3	- 1

	(10224,15331), (10226,13406), (11737, 15759), (12101, 15691), (14893, 15690)		
X(186)	(3, 2070), (23, 2071), (403, 10295)	4F	- E-4F
X(235)	(4,24)	F	- E+F
X(376)	(2, 20), (3, 3534), (4, 11001), (381, 15681), (382, 15685), (548, 15690), (549, 15686), (550, 8703), (1657, 3830), (3522, 15697), (3529, 15682), (3543, 15683), (3845, 15704), (5059, 15640), (5999, 9855), (11159, 14532), (12100, 12103), (15158, 15159)	2	- 3
X(378)	(20, 7391)	2F	E-2F
X(381)	(2, 4), (3, 3830), (5, 3845), (20, 15682), (140, 12101), (376, 3543), (382, 3534), (546, 5066), (547, 14893), (549, 15687), (3146, 11001), (3529, 15640), (3545, 3839), (3627, 8703), (3850, 3860), (3853, 12100), (3861, 10109), (5055, 14269), (5073, 15685), (5076, 15693), (8597, 11676), (11812, 12102)	1	3
X(382)	(3, 5073), (4, 3146), (3146, 15684), (3543, 15682), (5059, 11541)	1	- 5
X(384)	(6655, 6658)	$\cot^2(\omega)-1$	2
X(403)	(4, 186), (5, 11563), (23, 3153), (140, 11558), (468, 10151), (546, 10096), (2072, 11799), (5899, 7574)	-2F	E-2F
X(405)	(377, 6872)	abc\$a\$+S^2	-S^2
X(427)	(4, 378), (22, 7391)	F	E+F
X(428)	(4, 7576), (381, 7540)	-F	3E+3F
X(442)	(2, 6175), (4, 3651), (21, 2475)	abc\$a\$+S^2	S^2
X(468)	(2, 7426), (3,11799), (4, 10295), (5, 7575), (23, 858), (186, 403), (2070, 2072)	-3F	E+F
X(474)	(2478, 4190)	abc\$a\$-S^2	S^2

X(546)	(2, 15687), (3, 3627), (4, 5), (140, 3853), (381, 3845), (382, 550), (547, 12101), (549, 3830), (632, 5076), (3146, 15704), (3543, 8703), (3628, 12102), (3843, 3858), (3850, 3861), (5066, 14893), (11819, 12605)	1	5
X(547)	(2, 5), (3, 3845), (4, 8703), (140, 5066), (376, 15687), (381, 549), (546, 12100), (548, 12101), (550, 3830), (3091, 15713), (3530, 3860), (3534, 3627), (3543, 15686), (3545, 11539), (3628, 10109), (3843, 15711), (3850, 11812), (3858, 15693), (3861, 15759),(5055, 15699), (10124, 11737), (11001, 15687), (11540, 12811), (11812, 14890)	7	3
X(548)	(2, 15686), (3, 550), (4, 15704), (5, 20), (140, 12103), (376, 8703), (549, 3534), (1657, 3627), (3845, 15681), (10226,15332), (12100, 15691)	5	- 7
X(549)	(2, 3), (4, 3534), (5, 8703), (20, 3830), (140, 12100), (376, 381), (382, 11001), (546, 15690), (548, 5066), (550, 3845), (632, 15711), (1657, 15682), (3146, 15685), (3524, 5054), (3530, 11812), (3628, 15759), (3843, 15697), (5071, 14093), (10124, 14891), (12101, 12103), (14893, 15691)	5	- 3
X(550)	(3, 20), (3, 7488), (4, 1657), (5, 15704), (376, 3534), (381, 11001),(382, 3529), (548, 12103), (3543, 15685), (5059, 5073), (8703, 15686), (15154, 15161), (15155, 15160)	3	- 5
X(631)	(2, 15692), (3, 1656), (381, 15695), (548, 3859), (549, 15713), (632, 15712),	2	- 1

	(3091, 3522), (3843, 15696)		
X(632)	(2, 15694), (3, 3091), (4, 15696), (5, 15712), (631, 1656), (3522, 3843), (5071, 15693)	7	- 1
X(858)	(2, 10989), (3, 7574), (4, 7464), (20, 10296), (23, 5189), (2071, 3153)	E-2F	-2E-2F
X(1113)	(2, 15158), (3, 15154), (4, 15160), (20, 14808), (1114, 15157)	-R+|OH|	3R-|OH|
X(1114)	(2, 15159), (3, 15155), (4, 15161) (20, 14807), (1113, 15156)	R+|OH|	-3R-|OH|
X(1513)	(4, 11676), (3543, 9855)	-1	$\cot^2(\omega)$
X(1368)	(25, 1370), (6644, 14791)	E-F	-E-F
X(1594)	(4, 3520)	2F	E+2F
X(1595)	(4, 1593)	F	2E+F
X(1596)	(4, 25)	F	-2E+F
X(1598)	(4, 7487)	-F	2E+F
X(1656)	(2, 5071), (3, 3843), (4, 3522), (5, 632), (381, 15693), (631, 3091), (3845, 15714), (3858,15712), (5076, 15696)	3	1
X(1657)	(4, 5059), (20, 3529), (7464, 7488), (11001, 15683)	3	- 7
X(1658)	(3, 26), (7387, 12084), (12107, 15331)	E+8F	-3E-8F
X(1885)	(3146, 12225)	E+2F	-2E-6F
X(1907)	(4, 1593)	F	2E+F
X(2070)	(3, 5899), (23, 186)	E+8F	-5E-8F
X(2071)	(20, 3153), (186, 7464)	E-4F	-2E+4F
X(2072)	(4, 2071), (186, 3153), (403, 858), (2070, 7574), (10257, 10297), (10296, 13619)	E-4F	- E-4F
X(2476)	(4, 6876)	abc$a$+2S^2	$2S^2$
X(2478)	(4, 6899)	abc$a$	- $2S^2$
X(2937)	(3520, 12087), (7488, 12088)	3E+8F	-7E-8F
X(3090)	(4, 3528), (381, 15701), (3523, 3832), (3526, 3851), (3857, 14869)	2	1

X(3091)	(3, 5076), (4, 631), (5, 3858), (546, 12812), (1656, 3843), (3543, 15697), (3830, 14093),	1	2
X(3146)	(382, 5073), (3529, 11541), (3543,15640)	1	- 4
X(3149)	(4, 6885), (4, 6934)	- S^2	abc\$a\$+S^2
X(3153)	(2071, 10296)	E	-2E-8F
X(3363)	(2, 11317)	$\cot^2(\omega)$	9
X(3520)	(7488, 12086)	4F	E-4F
X(3522)	(3, 15696), (20, 3091), (550, 15712), (3534, 15694), (14093, 15695)	3	- 4
X(3523)	(3, 3526), (3090, 3528)	3	- 2
X(3524)	(2, 10304), (3, 5054), (376, 3545), (381, 15689), (3534, 14269), (5055, 15688), (8703, 15699)	4	- 3
X(3525)	(2, 15721), (3, 5072), (5056, 15717)	4	- 1
X(3526)	(2, 15702), (3, 3851), (3090, 3523), (3528, 3832)	5	- 1
X(3528)	(20, 3832), (376, 15698), (550, 14869), (3534, 15703)	4	- 5
X(3529)	(20, 5059)	2	- 5
X(3530)	(3, 140), (4, 12103), (5, 548), (20, 3853), (376, 5066), (381, 15690), (546, 550), (547, 8703), (549, 12100), (3522, 12812), (3534, 14893), (3845, 15691), (3859, 15696), (10020, 10226), (10124, 15759), (11250, 13383), (11812, 14891), (12101, 15686)	7	- 5
X(3534)	(2, 11001), (3, 15681), (4, 15683), (20, 376), (381, 1657), (550, 15686), (3529, 3543), (3830, 15685), (12103, 15691), (15158, 15161), (15159, 15160), (15640, 15684)	5	- 9
X(3537)	(20, 7408)	2E	-2E+F
X(3541)	(3516, 7507)	2F	E
X(3543)	(2, 3146), (4, 15682), (20, 15640),	1	- 6

	(382, 3830), (3534, 5073)		
X(3544)	(3854, 7486)	4	5
X(3545)	(2, 3839), (4, 3524), (381, 5055), (3830, 15688), (3845, 11539), (3861, 14890), (5054, 14269), (5066, 14892)	2	3
X(3575)	(4, 6240)	-F	E+3F
X(3627)	(3, 3146), (4, 382), (20, 5073), (381, 15682), (1885, 7553), (3543, 3830), (5899, 7488), (15640, 15681)	1	- 7
X(3628)	(2, 547), (3, 546), (4, 548), (5, 140), (376, 12101), (381, 12100), (442, 10021), (549, 5066), (550, 3853), (632, 12812), (2071, 11558), (3530, 3850), (3627, 12103), (3830, 15691), (3859, 15712), (3860, 14891), (8703, 14893), (10020, 10224), (10109, 10124), (11737, 11812), (12108, 12811), (13371, 13383)	5	1
X(3651)	(20, 2475)	$2abc\$a\$+2S^2$	$-3abc\$a\$-2S^2$
X(3830)	(2, 15682), (4, 3543), (376, 3146), (381, 382), (3627, 15687), (5073, 15681), (11001, 15640)	1	- 9
X(3832)	(4, 3090), (3830, 15700)	1	4
X(3839)	(4, 3545), (381, 14269), (382, 15689), (3543, 10304), (3830, 5054)	1	6
X(3843)	(4, 3091), (382, 15696), (1656, 5076), (3627, 15712), (3830, 15694)	1	7
X(3845)	(2, 3830), (3, 3543), (4, 381), (5, 15687), (376, 382), (546, 14893), (547, 3853), (549, 3627), (3146, 15681), (3534, 15682), (5066, 12101), (5071, 5076), (5073, 15683), (11737, 12102), (15640, 15685)	1	9
X(3850)	(2, 14893), (3, 3853), (4, 140), (5, 546),	3	7

	(381, 5066), (382, 12103), (547, 3845), (548, 3627), (549, 12101), (3091, 3859), (3543, 15690), (3628, 3861), (3843, 12812), (3856, 12811), (3860, 11737), (7488, 12105), (12100, 15687)		
X(3851)	(4, 3523), (5, 3857), (3090, 3832)	3	5
X(3853)	(4, 3627), (5, 382), (549, 15682), (550, 3146), (1885, 11819), (3543, 3845), (5073, 15704)	1	- 11
X(3854)	(4, 3533)	3	8
X(3855)	(4, 3525)	2	5
X(3856)	(4, 3628), (5, 3861), (140, 12102), (381, 3860), (546, 3850), (3530, 3853), (3830, 14891), (3845, 11737), (10109, 14893), (10124, 12101), (11812, 15687)	5	17
X(3857)	(4, 3526), (3832, 3851)	5	13
X(3858)	(4, 1656), (546, 3859), (631, 5076), (3091, 3843), (3543, 15695), (3830, 15692)	3	11
X(3859)	(4, 632), (5, 3843), (3091, 3858), (3522, 3627)	7	19
X(3860)	(4, 547), (5, 14893), (381, 546), (548, 3543), (549, 3853), (10124, 12102)	7	27
X(3861)	(4, 546), (5, 3853), (140, 3627), (381, 12101), (382, 548), (547, 3830), (3845, 14893), (3850, 12102), (5066, 15687)	1	13
X(4187)	(404, 5046)	abc$a$-S^2	- S^2
X(5020)	(6995, 7386)	E-F	E+F
X(5046)	(4, 6903)	abc$a$	- $4S^2$
X(5054)	(2, 3524), (3, 5055), (376, 3839), (381, 15688), (549, 11539), (3545, 10304), (14269, 15689)	7	- 3

X(5055)	(2, 3545), (3, 14269), (4, 10304), (5, 15699), (381, 5054), (3091, 15695), (3524, 3839), (3830, 15689)	5	3
X(5056)	(3525, 3855), (5070, 5072)	3	2
X(5066)	(2, 3845), (3, 15687), (4, 549), (5, 381), (140, 14893), (376, 3627), (382, 15686), (546, 547), (550, 3543), (3830, 8703), (3839, 15699), (3850, 11737), (3858, 5071), (3860, 10109), (3861, 10124), (5076, 15714), (12100, 12101), (12102, 14891)	5	9
X(5067)	(5068, 10303)	4	1
X(5068)	(4, 10299)	3	4
X(5070)	(381, 15716), (3525, 5056), (3855, 15717)	7	1
X(5071)	(2, 3091), (381, 15694), (3830, 15696), (3843, 15693), (3845, 15712), (3858, 15713), (5076, 15695)	4	3
X(5072)	(4, 15717), (3855, 5056)	5	7
X(5073)	(20, 11541), (382, 15684)	- 3	11
X(5076)	(382, 1656)	1	- 13
X(5079)	(5067, 5068)	7	5
X(5159)	(3, 10297), (468, 858), (2071, 10151), (2072, 10257)	E-5F	-E-F
X(5428)	(3, 21)	$5abc\$a\$+8S^2$	$-3abc\$a\$-8S^2$
X(5498)	(3, 10224), (5, 10226)	-E+24F	3E-8F
X(6175)	(2, 2475)	$3abc\$a\$+2S^2$	$6S^2$
X(6642)	(3, 1598), (6643, 7487)	E-2F	E+2F
X(6644)	(3, 25)	E-4F	E+4F
X(6656)	(2, 7924), (384, 6655), (7819, 8357)	$\cot^2(\omega)$	- 1
X(6661)	(2, 384)	$3\cot^2(\omega)-2$	3
X(6675)	(21, 442)	$2abc\$a\$+3S^2$	$- S^2$
X(6676)	(5, 7502), (22, 427)	E+3F	- E-F
X(6677)	(3, 1596), (3, 1906), (25, 1368),	E-3F	E+F
X(6756)	(3, 7553), (4, 3575), (5, 11819)	- F	2E+3F

	(428, 7576), (1885, 6240)		
X(6830)	(4, 6950)	$2S^2$	abc$a$+$2S^2$
X(6831)	(4, 6906), (411, 6895)	S^2	abc$a$+S^2
X(6835)	(4, 6897)	abc$a$	2abc$a$+$2S^2$
X(6839)	(4, 6951)	abc$a$	2abc$a$+$4S^2$
X(6841)	(4, 21)	abc$a$+$2S^2$	3abc$a$+$2S^2$
X(6842)	(4, 411)	abc$a$+$2S^2$	- abc$a$+$2S^2$
X(6844)	(4, 6935)	S^2	abc$a$+$2S^2$
X(6849)	(4, 443)	abc$a$	3abc$a$+$2S^2$
X(6861)	(6837, 6889)	3abc$a$+$4S^2$	Abc$a$
X(6862)	(6825, 6847)	abc$a$+$4S^2$	Abc$a$
X(6863)	(6833, 6838)	abc$a$+$4S^2$	- abc$a$
X(6866)	(4, 6857)	abc$a$+$2S^2$	3abc$a$+$4S^2$
X(6867)	(4, 6988)	abc$a$+$2S^2$	abc$a$+$4S^2$
X(6881)	(1006, 6839), (6912, 6951)	3abc$a$+$2S^2$	abc$a$+$2S^2$
X(6882)	(4, 6909), (6840, 6905)	abc$a$-$2S^2$	- abc$a$-$2S^2$
X(6883)	(3, 6913), (6826, 6987)	3abc$a$+$2S^2$	- abc$a$-$2S^2$
X(6893)	(4, 6865)	abc$a$	abc$a$-$2S^2$
X(6894)	(4, 6901)	abc$a$	4abc$a$+$4S^2$
X(6906)	(20, 6895)	$2S^2$	abc$a$-$2S^2$
X(6907)	(3,6923), (1012, 6925)	abc$a$+S^2	- abc$a$+S^2
X(6909)	(20, 6840)	abc$a$-$2S^2$	- 2abc$a$+$2S^2$
X(6911)	(4, 6948)	abc$a$-$2S^2$	abc$a$+$2S^2$
X(6913)	(4, 6987), (6826, 6930)	abc$a$+S^2	abc$a$-S^2
X(6914)	(3,1012), (6923, 6938)	abc$a$+$4S^2$	abc$a$-$4S^2$
X(6917)	(4, 6850)	abc$a$	abc$a$+$4S^2$
X(6922)	(3, 6928), (3149, 6836)	abc$a$-S^2	- abc$a$-S^2
X(6923)	(4, 6925)	abc$a$	- abc$a$+$4S^2$
X(6924)	(3, 3149), (6885, 6928), (6928, 6934)	abc$a$-$4S^2$	abc$a$+$4S^2$
X(6928)	(4, 6836)	abc$a$	- abc$a$-$4S^2$
X(6929)	(4, 6827)	abc$a$	abc$a$-$4S^2$
X(6941)	(4, 6942)	- $2S^2$	abc$a$-$2S^2$
X(6957)	(4, 6947)	abc$a$	2abc$a$-$2S^2$

X(6958)	(6834, 6890)	abc$a$-4S^2	-abc$a$
X(6959)	(6848, 6891)	abc$a$-4S^2	Abc$a$
X(6968)	(4, 6880)	-2S^2	abc$a$-4S^2
X(6971)	(6941, 6943)	abc$a$-4S^2	-abc$a$-4S^2
X(6980)	(6830, 6932)	abc$a$+4S^2	- abc$a$+4S^2
X(6985)	(4, 6869)	abc$a$+2S^2	-3abc$a$-2S^2
X(7392)	(4, 3537)	E	E+F
X(7403)	(4, 7503)	E+2F	3E+2F
X(7426)	(2, 23)	-E-10F	6E+6F
X(7464)	(20, 5189)	2E-4F	-5E+4F
X(7486)	(381, 15722), (3533, 3544)	5	2
X(7488)	(3, 2937), (3520, 12088), (12086, 12087)	E+4F	-2E-4F
X(7499)	(5133, 6636)	2E+3F	- E-F
X(7502)	(3, 22), (378, 12083)	3E+8F	-5E-8F
X(7507)	(4, 3541)	F	E+3F
X(7526)	(3, 1593)	E+4F	E-4F
X(7553)	(3146, 6240)	-E-2F	5E+6F
X(7555)	(22, 7502)	7E+16F	-13E-16F
X(7574)	(4, 5189), (7464, 10296)	3E	-7E-16F
X(7575)	(3, 23), (186, 2070), (2071, 5899), (10295, 11799)	-E-16F	7E+16F
X(7576)	(428, 3575)	-2F	3E+6F
X(7715)	(1598, 7487)	-3F	4E+5F
X(7734)	(2, 10691)	5E+F	- 3E-3F
X(7807)	(3552, 5025)	$\cot^2(\omega)$-2	1
X(7819)	(2, 6661), (384, 6656)	$2\cot^2(\omega)$-1	1
X(7833)	(8353, 8356)	$\cot^2(\omega)$+3	- 6
X(7924)	(2, 6655)	$\cot^2(\omega)$+1	- 4
X(8352)	(2, 8597), (3543, 5999)	$\cot^2(\omega)$	- 9
X(8354)	(2, 8353), (7833, 8356)	$2\cot^2(\omega)$+5	- 9
X(8356)	(2, 7833), (8353, 8370), (8354, 8359)	$\cot^2(\omega)$+2	- 3
X(8357)	(6655, 6656)	$2\cot^2(\omega)$+1	- 5
X(8358)	(2, 8354), (8356, 8359)	$4\cot^2(\omega)$+7	- 9

X(8359)	(2, 8356), (7833, 8370), (8353, 11361)	$2\cot^2(\omega)+3$	- 3
X(8360)	(7841, 8369)	$4\cot^2(\omega)-3$	- 3
X(8361)	(5025, 7807)	$2\cot^2(\omega)-3$	- 1
X(8362)	(7770, 7791)	$2\cot^2(\omega)+1$	- 1
X(8363)	(7892, 7933)	$3\cot^2(\omega)-2$	- 1
X(8364)	(384, 8357),, (6656, 7819)	$4\cot^2(\omega)-1$	- 1
X(8365)	(2, 8368), (8360, 8369)	$8\cot^2(\omega)-9$	3
X(8367)	(8359, 8370), (8354, 11361)	$4\cot^2(\omega)+3$	3
X(8368)	(2,8369)	$2\cot^2(\omega)-3$	3
X(8369)	(2, 1003)	$2\cot^2(\omega)-3$	3
X(8370)	(2, 11361)	$\cot^2(\omega)$	3
X(8598)	(2, 9855), (376, 11676)	$\cot^2(\omega)-6$	9
X(8703)	(2, 3534), (3,376), (4, 15681), (5, 15686), (20, 381), (140, 15691), (382, 15683), (547, 12103), (549, 550), (1657, 3543), (3522, 14093), (3830, 11001), (12100, 15690), (15154, 15159), (15155, 15158)	7	- 9
X(9825)	(3, 6756), (3575, 12362), (7576, 10691)	E-F	E+3F
X(9909)	(7387, 14070)		
X(10020)	(3, 15761), (5, 1658), (26, 13371), (140, 13383), (10224, 12107), (13406, 15331)	E+12F	-3E-4F
X(10021)	(5428, 6841)	7abc\$a\$+12S^2	3abc\$a\$-4S^2
X(10024)	(4, 7488)	E+4F	-E+4F
X(10096)	(5, 2070), (186, 11563), (403, 7575), (3627, 13619)	E+24F	-11E-8F
X(10109)	(2, 5066), (3, 14893), (5, 547), (140, 381), (376, 3853), (546, 549), (3543,12103), (3628, 11737), (3845, 12100), (3850, 10124), (3860, 11812), (3861, 14891), (5071, 12812)	13	9
X(10124)	(2, 140), (3, 5066), (4, 15690), (5, 12100), (376, 14893), (546, 8703), (547, 549),	17	- 3

	(548, 3845), (550, 12101), (3530, 10109), (3534, 3853),(3628, 11812), (3830, 12103), (11737, 14891), (3850, 15759)		
X(10125)	(3, 13406), (4, 15332), (5,15331), (140, 10020), (1658, 10224), (10226, 15761), (12107, 13371)	E+24F	-3E-8F
X(10127)	(3, 428), (9825, 10128)	3E-2F	3E+6F
X(10128)	(3, 10127), (428, 10691), (7576, 12362)	3E-F	3E+3F
X(10151)	(4, 403), (3627, 15646)	- F	E-5F
X(10154)	(2, 9909), (26, 10201)	E+5F	-3E-3F
X(10201)	(5, 10154)	E+8F	-3E
X(10204)	(3, 10224), (5, 10226), (11250, 13406), (13371, 15331)	-E+24F	3E-8F
X(10212)	(3, 5498), (10125, 10226)	-E+56F	3E-40F
X(10224)	(4, 11250), (5, 13371)	-E+8F	3E+8F
X(10226)	(3, 11250), (550, 13371), (1658, 12084)	-E+16F	3E-16F
X(10257)	(3, 2072), (186, 858), (403, 2071), (3153, 10295)	E-6F	-E+2F
X(10295)	(20, 23), (186, 13619)	-6F	E+10F
X(10296)	(3146, 5189)	E+4F	-2E-20F
X(10297)	(4, 858), (403, 3153), (7574, 11799), (10295, 10296)	E-2F	-E-10F
X(10303)	(3, 5079), (5067, 10299)	5	- 2
X(10304)	(3, 15688), (20, 3839), (376, 3524), (550, 11539), (3534, 5055), (5054, 15689), (12103, 14892)	5	- 6
X(10691)	(2, 7667)	3E+F	-3E-3F
X(10989)	(2, 5189)	5E-4F	-12E-12F
X(11001)	(20, 15683), (376, 3529), (1657, 15681), (3534, 15685), (3543, 5059)	4	- 9
X(11250)	(3, 12084), (26, 12085)	-E+8F	3E-8F
X(11286)	(11159, 11287)	$2\cot^2(\omega)-1$	3
X(11287)	(5077, 11286)	$2\cot^2(\omega)+1$	- 3
X(11539)	(2, 5054), (3, 3545), (376, 14269),	13	- 3

	(381, 10304), (549, 15699), (3524, 5055), (3839, 15688)		
X(11540)	(2, 11812), (3, 11737), (5, 14891), (140, 10124), (376, 3861), (547, 3530), (549, 3628), (3860, 8703)	35	- 9
X(11541)	(550, 15684)	4	- 13
X(11558)	(2070, 3627)	-3E-8F	17E-40F
X(11563)	(4, 2070), (403, 11799), (382, 13619), (3153, 5899), (10096, 11558)	-E-8F	7E-8F
X(11737)	(2, 546), (3, 12101), (4, 12100), (5, 5066), (140, 3845), (381, 547), (548, 3830), (549, 14893), (3543, 15691), (3627, 15690), (3628, 3860), (3850, 10109), (3853, 8703), (3861, 11812), (12102, 15759)	11	15
X(11799)	(4, 23)	-E-4F	5E-4F
X(11812)	(2, 12100), (3, 547), (4, 15691), (140, 549), (376, 546), (381, 548), (550, 14893), (3628, 14891), (3530, 10214), (3845, 15690),(5066, 8703), (10109, 15759), (12103, 15687), (12812, 15714)	19	- 9
X(11819)	(382, 6240), (3575, 7553)	-E-4F	7E+12F
X(12010)	(5498,15761), (10125, 13406), (10204, 15761)	3E+40F	-9E+8F
X(12083)	(22, 12082)	3E+4F	-7E-4F
X(12084)	(3, 12085), (20, 14790)	-E+4F	3E-4F
X(12088)	(7488, 12087)	2E+4F	-5E-4F
X(12100)	(2, 8703), (3, 549), (4, 15686), (5, 376), (20, 15687), (381, 550), (546, 15691), (547, 548), (631, 15714), (632, 14093), (3534, 3845), (3627, 15681), (3543, 15704), (5066, 15690), (10226, 15330), (10304, 11539), (12103, 14893), (11812, 15759)	11	- 9

X(12101)	(5, 3543), (381, 3627), (382, 549), (3146, 15686), (3830, 3845), (3853, 14893)	1	- 27
X(12102)	(4, 3853), (140, 382), (546, 3627), (3146, 12103), (3543, 5066), (3830, 14893), (12101, 15687)	1	- 19
X(12103)	(3, 15704), (5, 1657), (20, 550), (549, 11001), (3529, 3627), (3534, 15686), (8703, 15681)	7	- 13
X(12104)	(21, 5428)	$9abc\$a\$+16S^2$	$-3abc\$a\$-16S^2$
X(12105)	(23, 7575)	-5E-32F	23E+32F
X(12106)	(25, 6644)	E-8F	5E+8F
X(12107)	(26, 1658), (7387, 11250)	3E+16F	-9E-16F
X(12108)	(3, 3628), (140, 3530), (548, 3850), (549, 11812), (550, 3861), (547, 15759)	13	- 7
X(12362)	(3, 12605), (20, 1885), (3575, 12225)	E+F	-E-3F
X(12811)	(3, 12102), (4, 3530), (5, 3850), (140, 3861), (376, 15697), (381, 10109), (546, 3628), (547, 3860), (3845, 10124), (5066, 11737), (11812, 14893), (12101, 14891), (14269, 14890)	7	11
X(12812)	(5, 1656), (140, 3859), (381, 15713), (631, 3858), (632, 3091), (3843, 15712), (3845, 15692)	11	7
X(13163)	(3628, 6756)	5E-8F	17E+24F
X(13371)	(4, 12084), (26, 14790)	-E+4F	3E+4F
X(13383)	(5, 26), (1658, 15761), (10154, 10201), (12107, 13406)	E+6F	-3E-2F
X(13406)	(4, 1658), (5, 15761), (546, 13383)	E+8F	-3E+8F
X(13473)	(382, 2072)	F	E-11F
X(13488)	(4, 1885), (382, 12605)	F	2E-3F
X(13490)	(2, 7540), (381, 7576), (7553, 7667)	E-4F	9E+12F
X(13586)	(9855, 14041)	$\cot^2(\omega)$-5	6

X(13619)	(1657, 5899)	- 8F	E+16F
X(14033)	(11159, 11286)	$\cot^2(\omega)-1$	3
X(14041)	(9855, 13586)	$\cot^2(\omega)-1$	- 6
X(14070)	(3, 9909)	E+6F	-3E-6F
X(14093)	(3, 15695), (376, 15692), (550, 15713), (631, 15697)	17	- 21
X(14269)	(4, 3839), (382, 15688), (3524, 3543), (3627, 11539), (3830, 5055), (3853, 14892)	1	15
X(14869)	(2, 15700), (3, 3090), (3523, 3526), (3526, 3851)	11	- 5
X(14891)	(2, 548), (3, 12100), (20, 12101), (140, 8703), (376, 547), (546, 3534), (550, 5066), (3845, 12103)	23	- 21
X(14892)	(5, 3545), (3627, 15689)	17	21
X(14893)	(2, 3627), (4, 3845), (5, 3830), (381, 15687), (546, 12101), (549, 3543), (550, 15682), (3853, 5066), (3860, 12102)	1	21
X(15122)	(7574, 10295)	3E-12F	-5E+4F
X(15154)	(1113, 15157), (14808, 15169)	-2R+|OH|	6R-|OH|
X(15155)	(1114, 15156), (14807, 15161)	2R+|OH|	-6R-|OH|
X(15330)	(2, 1658), (8703, 15761), (12100, 13383)	3E+40F	-9E-24F
X(15331)	(3, 1658), (26, 11250), (548, 13383), (550, 15761), (10226, 12107), (13406, 15332)	E+16F	-3E-16F
X(15332)	(26, 1658)	E+24F	-3E-40F
X(15350)	(140, 403), (2072, 10096)	3E-40F	7E-8F
X(15640)	(376, 11541)	-5	18
X(15646)	(3, 186), (548, 10096), (550, 11563), (2070, 2071), (2072, 10295), (5899, 7464), (11558, 12103)	E-16F	E+16F
X(15681)	(2, 3529), (20, 11001), (1657, 3534)	7	- 15
X(15682)	(381, 5073), (632, 15687), (3146, 3543)	2	- 9
X(15683)	(2, 5059), (1657, 15685), (3529, 11001)	5	- 12

X(15685)	(376, 5059)	11	- 27
X(15686)	(2, 1657), (3, 11001), (4, 15685), (20, 3534), (376, 15681), (381, 15683), (3529, 3830), (8703, 15704)	11	- 21
X(15687)	(2, 382), (3, 15682), (4, 3830), (381, 3543), (1657,15640), (3146, 3534), (3627, 3845), (3853, 12101), (5073, 11001)	1	- 15
X(15688)	(3, 15689), (20, 3545), (376, 10304), (3534, 5054), (14269, 15681)	11	- 15
X(15689)	(20, 3524), (3534, 15688), (3839, 11001), (5055, 15681)	13	- 21
X(15690)	(3, 15686),(5, 15681), (20, 549), (376, 550), (381, 15704), (548, 15691), (3534, 8703), (3627, 15683), (3845, 11001)	17	- 27
X(15691)	(2, 15704), (5, 11001), (20, 8703), (550, 3534), (1657, 3845)	19	- 33
X(15692)	(2, 3522), (3, 15693), (376, 5071), (549, 15714), (632, 8703), (1656, 15695), (3091, 15697), (3534, 3843), (14093, 15694)	7	- 6
X(15693)	(3, 15694), (376, 3091), (381, 15696), (549, 15712), (632, 15714), (1656, 14093), (3522, 5071)	13	- 9
X(15694)	(2, 631), (4, 15697), (5, 15711), (381, 14093), (632, 15713), (1656, 15693), (3534, 5076), (3843, 15695), (3858, 8703), (12100, 12812)	11	- 3
X(15695)	(20, 5071), (376, 3522), (550, 15714), (632, 15686), (3534, 15693), (3843, 15681)	19	- 27
X(15696)	(20, 631), (1657, 5076), (3534, 14093), (3858, 15704)	7	- 11
X(15697)	(20, 15692), (1656,15681)	11	- 18
X(15698)	(3, 15700), (376, 3090), (3528, 15702)	10	- 9
X(15699)	(2, 5055), (3, 3839), (4, 15688),	11	3

	(5, 11539), (140, 14892), (381, 3524), (3545, 5054), (10304, 14269), (11737, 14890)		
X(15700)	(2, 3528), (3, 15701)	19	- 15
X(15701)	(3, 15703), (376, 3832), (549, 14869)	17	- 9
X(15702)	(2, 3523), (3090, 15698), (3857, 8703)	8	- 3
X(15703)	(2, 3090), (381, 15700)	13	3
X(15704)	(3, 3529), (20, 1657), (376, 15685), (382, 5059), (11001, 15681)	5	- 11
X(15706)	(3534, 15705), (10304, 15709)	25	- 21
X(15707)	(5054, 15706)	23	- 15
X(15708)	(3524, 15709), (5054, 15707)	11	- 6
X(15709)	(2, 15708), (3545, 15710), (5055, 15706)	10	- 3
X(15710)	(376, 15709), (10304, 15705)	14	- 15
X(15711)	(2, 15695), (3, 15692), (631 14093), (376, 1656), (3522, 15694), (3859, 15691), (5071, 15696), (8703, 15713)	29	- 27
X(15712)	(2, 14093), (3, 631), (20, 5076), (381, 15697), (548, 12812), (549, 15711), (550, 3858), (1656, 3522), (3091, 15696)	9	- 7
X(15713)	(2, 15693), (3, 5071), (5, 15714), (376, 3843), (381, 3522), (549, 632), (3091, 14093)	23	- 9
X(15714)	(3091, 3534)	31	- 33
X(15715)	(3, 15716)	16	- 15
X(15717)	(3, 15720)	5	- 4
X(15719)	(3, 15723), (376, 3855), (3525, 15715), (3543, 15681), (14093, 14269)	14	- 9
X(15720)	(2, 15715), (3, 5070), (3525, 15717)	9	- 5
X(15721)	(3525, 15719)	13	- 6
X(15722)	(376, 3854)	43	- 27
X(15723)	(2, 3525)	23	- 3
X(15759)	(20, 14893), (140, 376)	25	- 27
X(15761)	(4, 26)	E+4F	-3E+4F

	(3830,14269)	1	- 21
	(3091,3543)	1	- 18
	(382, 3526)	1	- 17
	(382, 5070)	1	- 14
	(382, 5055), (3543, 3839)	1	- 12
	(382, 3851)	1	- 10
	(382, 3843), (3146, 3522)	1	- 8
	(4, 3855)	1	8
	(4, 3832), (3627, 14869)	1	11
	(1656, 3830), (3859, 12101)	1	12
	(4, 3843), (382, 3522), (632, 3627), (3091, 5076), (3830, 5071)	1	17
	(3523, 3543)	1	18
	(382, 14269), (3146, 10304)	2	- 15
	(3146, 3523)	2	- 13
	(3091, 3146)	2	- 11
	(4, 11541)	2	- 7
	(4, 5067)	2	7
	(4, 5071), (381, 3843), (3522, 3543)	2	9
	(4, 3544)	2	11
	(3526, 3830)	2	15
	(382, 5076), (631, 3146)	3	- 19
	(5, 3146), (382, 3627), (550, 5073)	3	- 17
	(3146, 3832)	3	- 16
	(1656, 5073)	3	- 14
	(4, 5073), (382, 3146)	3	- 13
	(4, 5056)	3	13
	(4, 5068)	3	17
	(4, 3851)	3	19
	(3526, 5073)	4	- 19
	(5073, 5076)	4	- 17
	(11001, 11541)	4	- 15
	(20, 3522), (1657, 3843), (5071, 11001)	4	-7

	(381, 3851)	4	9
	(1657, 11541), (3146, 5073)	5	- 19
	(376, 11541)	5	- 18
	(3146, 11541)	5	- 17
	(3529, 5059)	5	- 13
	(20, 3523)	5	- 8
	(2, 3832), (3845, 14869)	5	6
	(4, 10303)	5	11
	(4, 7486)	5	19
	(631, 3529)	6	- 13
	(1657, 3851)	6	- 11
	(3091, 3832)	6	17
	(3, 5059), (1657, 3529)	7	- 17
	(20, 10304), (1657, 14269), (3545, 11001)	7	- 12
	(20, 5056)	7	- 10
	(381, 1656), (547, 3859), (3091, 5071), (5076, 14093	7	9
	(3544, 3854)	7	13
	(2, 14269), (4, 5054), (381, 3545), (3830, 10304), (3839, 5055)	7	15
	(3091, 5059)	8	- 19
	(3090, 3529)	8	- 17
	(1657, 5055)	8	- 15
	(20, 5068)	8	- 11
	(3, 14093), (376, 631)	8	- 9
	(381, 5070)	8	9
	(3526, 3843)	8	11
	(3528, 3529)	9	- 20
	(5, 3529), (550, 1657)	9	- 19
	(1656, 1657)	9	- 17
	(20, 10303)	9	- 14
	(20, 3090)	9	- 13
	(3, 548), (5, 12103), (20, 546), (140, 550),	9	- 11

	(376, 12100), (547, 3534)		
	(5067, 10303), (5068, 10299)	9	- 1
	(3, 3832), (5, 14869), (3090, 3526), (3523, 3851)	9	1
	(2, 11737), (3, 3861), (5, 3628), (140, 3850), (381, 11812), (546, 3530), (547, 10109), (548, 12102), (549, 3860), (3856, 12108), (5066, 10124)	9	5
	(3533, 3854), (3544, 7486)	9	7
	(1656, 3851)	9	8
	(5, 3091), (632, 3843), (1656, 3858), (3859, 12812)	9	13
	(1657, 5070)	10	- 19
	(20, 3854)	10	- 13
	(2, 5056)	10	3
	(20, 3528)	11	- 19
	(3, 12103), (20, 140), (548, 550), (1657, 3853), (11001, 14893)	11	- 17
	(20, 7486)	11	- 16
	(3, 3522), (20, 3843), (550, 632), (3534, 5071)	11	- 13
	(3534, 3851)	11	- 12
	(2, 10124), (3, 3850), (5, 3530), (140, 3628), (547, 11812), (548, 3861), (549, 10109), (550, 12102), (5066, 14891), (11737, 12101)	11	- 1
	(3533, 7486)	11	1
	(3091, 3523)	11	2
	(2, 5068)	11	6
	(381, 3526)	11	9
	(3545, 5071), (3843, 5054)	11	12
	(20, 15022)	12	- 17
	(631, 3090)	12	- 1
	(20, 1656)	13	- 19

	(376, 3528)	13	- 18
	(20, 3855)	13	- 17
	(2, 550), (3, 8703), (5, 3534), (20, 3845), (376, 549), (548, 12100), (3627, 11001), (5066, 12103)	13	- 15
	(3, 3523), (550, 3857), (3526, 3528)	13	- 11
	(10124, 12100)	13	- 7
	(632, 14869), (3522, 3832)	13	- 4
	(3, 3858), (5, 631), (140, 12812), (550, 5076), (632, 1656)	13	1
	(5056, 5070)	13	5
	(1656, 5055)	13	6
	(2, 3854)	13	12
	(3091, 5056)	13	16
	(5, 3851), (3090, 3857)	13	17
	(381, 5071)	13	21
	(2, 10303)	14	- 3
	(631, 3545)	14	3
	(3, 3528)	15	- 17
	(3, 3530), (20, 12101), (376, 10109), (548, 3628), (550, 3850), (3861, 12103)	15	- 13
	(3, 3855)	15	- 1
	(5, 3090), (3526, 3857), (3832, 14869)	15	11
	(5, 12811), (3628, 3856), (3861, 12108)	15	19
	(632, 11539), (3522, 3839), (3524, 5071)	16	- 3
	(2, 7486)	16	3
	(631, 3855)	16	7
	(3090, 3545)	16	15
	(20, 3861), (548, 3530), (550, 3628), (3850, 12103), (8703, 14891)	17	- 19
	(376, 3525)	17	- 18
	(631, 3528)	17	- 16
	(3, 3524), (376, 5055), (3534, 3839)	17	- 15
	(3, 632), (5, 3522), (550, 3843)	17	- 11

	(3, 5056)	17	- 7
	(3091, 10304)	17	- 6
	(1656, 5070)	17	4
	(5, 3526), (3523, 3857)	17	5
	(2, 15022)	17	6
	(4, 14093), (376, 5076), (381,631), (547, 12812), (549, 3858), (1656, 5071)	17	9
	(3523, 3839)	17	12
	(140, 3856), (381, 11540), (546, 12108), (3628, 12811), (5079, 10303)	17	13
	(2, 3855)	17	15
	(3090, 3091)	17	19
	(3522, 3523)	18	- 19
	(376, 5067)	19	- 18
	(550, 3091), (632, 3522)	19	- 17
	(3, 3525)	19	- 13
	(631, 3524)	19	- 12
	(3, 5068), (5079, 10299)	19	- 5
	(3, 3857), (5, 3523)	19	- 1
	(2, 1656), (3859, 12100)	19	3
	(3851, 5054)	19	6
	(140, 12811), (3530, 3856), (3850, 12108)	19	7
	(3091, 10303)	19	8
	(3858, 14869)	19	13
	(5, 5055), (381, 11539), (547, 14892), (549, 3839), (3524, 3845), (3860, 14890)	19	15
	(3526, 5055)	20	3
	(5073, 7540), (7576, 15640)	$-5E-2F$	$21E+6F$
	(546, 7553), (3853, 11819)	$-3E-8F$	$25E+24F$
	(382, 11819), (3627, 7553)	$-3E-4F$	$17E+12F$
	(382, 7576), (3543, 7540)	$-3E-4F$	$21E+12F$
	(428, 3627), (3543, 13490)	$-3E-4F$	$33E+12F$
	(3146, 7553), (3575, 5073)	$-3E-2F$	$13E+6F$

	(3146, 13488), (5073, 12362)	-2E+F	10E-3F
	(3575, 11819), (3627, 6240)	-E-8F	11E+24F
	(140, 7553), (546, 11819), (3575, 3853)	-E-8F	19E+24F
	(428, 12101), (3853, 13490)	-E-8F	51E+24F
	(2, 7553), (3575, 3830), (3845, 11819)	-E-6F	15E+18F
	(4, 11819), (5, 7553), (3575, 3627)	-E-4F	11E+12F
	(4, 7540), (3830, 7576)	-E-4F	15E+12F
	(381, 7553), (3543, 3575)	-E-3F	9E+9F
	(4, 7553), (382, 3575), (3627, 11819)	-E-2F	7E+6F
	(3543, 7576), (3830, 7540)	-E-2F	9E+6F
	(428, 3830), (3627, 13490)	-E-2F	15E+6F
	(382, 7553), (3146, 3575)	-E-F	5E+3F
	(1885, 3146), (5073, 12605)	-E+F	5E-3F
	(382, 13488), (3146, 12362)	-E+F	7E-3F
	(382, 1885), (3146, 12605)	-E+2F	7E-6F
	(6756, 7576), (10217, 11819)	-7F	12E+21F
	(428,6756), (7553, 10691)	-5F	12E+15F
	(3575, 6756), (6240, 13488)	-3F	4E+9F
	(4, 6756), (3575, 13488), (7553, 12362)	- F	4E+3F
	(4, 428), (382, 7540)	- F	6E+3F
	(4, 13488), (382, 12362), (1885, 6756)	F	4E-3F
	(382, 10691), (428, 13488)	F	12E-3F
	(140, 11819), (546, 3575), (548, 7553)	E-8F	13E+24F
	(376, 7553), (381, 3575), (549, 11819)	E-6F	9E+18F
	(3, 11819), (5, 3575), (550, 7553)	E-4F	5E+12F
	(4, 13490), (428, 3845)	E-4F	21E+12F
	(2, 3575), (3534, 7553), (8703, 11819)	E-3F	3E+9F
	(3, 3575), (20, 7553), (550, 11819), (6240, 12605)	E-2F	E+6F
	(2, 7576), (3, 7540)	E-2F	3E+6F
	(381, 428), (3845, 13490)	E-2F	9E+6F
	(20, 3575), (1657, 7553)	E-F	-E+3F
	(376, 7576), (3534, 7540), (3575, 7667),	E-F	3F

	(6756, 7734)		
	(2, 428), (5, 13490)	E-F	3E+3F
	(3, 13488), (4, 12362), (6756, 12605)	E+F	E-3F
	(3543, 7667), (7540, 12605)	E+F	3E-3F
	(3, 1885), (4, 12605), (7553, 12225), (12362, 13488),	E+2F	E-6F
	(5, 13488), (3627, 12362)	E+2F	5E-6F
	(1885,12362), (12605, 13488)	E+3F	E-9F
	(2, 1885), (3830, 12605)	E+3F	3E-9F
	(381, 13488), (3543, 12362)	E+3F	9E-9F
	(382, 12225), (1885, 12605)	E+4F	E-12F
	(5, 1885), (3627, 12605)	E+4F	5E-12F
	(381, 1885), (3543, 12605)	E+6F	9E-18F
	(2, 6756), (7540, 10691)	2E-3F	6E+9F
	(1657, 7540), (7576, 11001)	2E-F	-3E+3F
	(3845, 10127), (7540, 12362)	2E-F	6E+3F
	(1657, 12605), (1885, 3529)	2E+F	-4E-3F
	(3, 12362), (20, 13488)	2E+F	-2E-3F
	(6756, 12225), (12362, 12605)	2E+3F	-2E-9F
	(376, 1885), (381, 12605)	2E+3F	-9F
	(2, 13488), (3830, 12362)	2E+3F	6E-9F
	(631, 1885), (5076, 12605)	2E+5F	4E-15F
	(548, 11819), (7553, 12103)	3E-8F	7E+24F
	(5, 7576), (549, 7540), (6756, 10127)	3E-8F	15E+24F
	(428, 9825), (6756, 10128), (7540, 7734)	3E-7F	15E+21F
	(20, 11819), (550, 3575)	3E-4F	-E+12F
	(1657, 3575), (3529, 7553)	3E-2F	-5E+6F
	(6756, 10791), (9825, 10128)	3E-2F	3E+6F
	(20, 12362), (1657, 13488)	3E+F	-5E-3F
	(4, 10691), (428, 12362)	3E+F	3E-3F
	(20, 12605), (1657, 1885)	3E+2F	-5E-6F
	(5, 12362), (550, 13488)	3E+2F	-E-6F
	(5, 12605), (550, 1885), (11819, 12225)	3E+4F	-E-12F

	(428, 12605), (10691, 13488)	3E+4F	3E-12F
	(140, 13488), (3853, 12362)	3E+4F	7E-12F
	(140, 1885), (3853, 12605)	3E+8F	7E-24F
	(549, 10127), (6756, 7667), (7734, 9825)	4E-F	3F
	(1657, 12362), (3529, 13488)	4E+F	-8E-3F
	(1885, 11001), 83534, 12605)	4E+3F	-6E-9F
	(376, 13488), (381, 12362)	4E+3F	-9F
	(631, 13488), (5076, 12362)	4E+5F	8E-15F
	(548, 3575), (11819, 12103)	5E-8F	E+24F
	(428, 5066), (546, 13490)	5E-8F	33E+24F
	(3534, 3575), (7553, 11001)	5E-6F	-3E+18F
	(20, 7540), (3534, 7576)	5E-4F	-3E+12F
	(2, 13490), (428, 549)	5E-4F	9E+12F
	(428, 3534), (550, 13490)	5E-2F	-3E+6F
	(2, 12362), (3534, 13488)	5E+3F	-3E-9F
	(546, 12362), (548, 13488)	5E+4F	E-12F
	(2, 12605), (1885, 3534)	5E+6F	-3E-18F
	(546, 12605), (548, 1885)	5E+8F	E-24F
	(3522, 13488), (3843, 12362)	6E+5F	2E-15F
	(3, 13490), (428, 8703)	7E-4F	3E+12F
	(2, 10127), (10691, 13490)	7E-2F	3E+6F
	(3845, 10691), (12362, 13490)	7E+2F	3E-6F
	(140, 12362), (12103, 13488)	7E+4F	-5E-12F
	(3845, 12362), (8703, 13488)	7E+6F	3E-18F
	(140, 12605), (1885, 12103)	7E+8F	-5E-24F
	(3530, 13488), (12102, 12362)	7E+8F	11E-24F
	(549, 10128), (7734, 10127)	8E-F	3F
	(3534, 12362), (11001, 13488)	8E+3F	-12E-9F
	(381,14790), (3543, 12085)	-3E+2F	9E+18F
	(2,14790), (3830, 12085)	-3E+4F	9E+12F
	(3845, 12085), (8703,14790)	-3E+7F	9E+3F
	(376,14790), (381, 12085)	-3E+8F	9E
	(2, 12085), (3534,14790)	-3E+10F	9E-6F

	(3534, 12085), (11001,14790)	-3E+16F	9E-24F
	(1658, 12085), (11250, 12084)	-3E+16F	9E-16F
	(1658, 14790), (10224, 13371)	-3E+16F	9E+16F
	(3830, 11250), (3845,13371)	-3E+16F	9E+48F
	(5066,13371), (11250, 12101)	-3E+22F	9E+30F
	(10224, 11250), (10226, 13371), (12084, 13406)	-3E+24F	9E-8F
	(547,13371), (11250, 14893)	-3E+26F	9E+18F
	(3860, 11250), (11812, 13371)	-3E+31F	9E+3F
	(12084, 15331), (10226, 11250)	-3E+32F	9E-32F
	(381, 11250), (549,13371)	-3E+32F	9E
	(3830,10226), (3845, 10224)	-3E+32F	9E+96F
	(5066, 11250), (12100,13371)	-3E+34F	9E-6F
	(11250, 11737), (13371,14891)	-3E+35F	9E-9F
	(2, 11250), (8703,13371)	-3E+40F	9E-24F
	(5498, 10224), (10125, 13371), (10204, 10224)	-3E+40F	9E+8F
	(5066, 10224), (10226,12101)	-3E+44F	9E+60F
	(3534,13371), (8703, 11250)	-3E+52F	9E-60F
	(547, 10224), (10226,14893)	-3E+52F	9E+36F
	(5498, 10226), (10125, 11250), (10204, 10226)	-3E+56F	9E-40F
	(2, 10224), (3845,10226)	-3E+56F	9E+24F
	(3860,10226), (10224, 11812)	-3E+62F	9E+6F
	(381,10226), (549,10224), (13371, 15330)	-3E+64F	9E
	((10224, 12100), (5066,10226)	-3E+68F	9E-12F
	(10224, 14891), (11737,10226)	-3E+70F	9E-18F
	(2,10226), (8703, 10224)	-3E+80F	9E-48F
	(376,10224), (549,10226), (11250, 15330)	-3E+88F	9E-72F
	(140,14790), (3853, 12085)	-2E+3F	6E+7F
	(546, 12085), (548,14790)	-2E+5F	6E+F
	(3856, 11250), (12108,13371)	-2E+21F	6E+F
	(3146,14790), (5073, 12085)	-E-4F	3E+20F

	(382,14790), (3146, 12085)	-E-2F	3E+14F
	(4,14790), (382, 12085)	-E	3E+8F
	(382, 11250), (3627,13371)	-E	3E+32F
	(382,10226), (3627,10224)	-E	3E+64F
	(5,14790), (3627, 12085)	-E+F	3E+5F
	(3,14790), (4, 12085)	-E+2F	3E+2F
	(5, 12085), (550,14790)	-E+3F	3E-F
	(4,13371), (3627, 11250)	-E+4F	3E+20F
	(20, 12085), (1657,14790)	-E+6F	3E-10F
	(5,12084), (10250, 13371)	-E+6F	3E-2F
	(546,13371), (3853, 11250)	-E+6F	3E+14F
	(3850,13371), (11250, 12102)	-E+7F	3E+11F
	(1657, 12085), (3529,14790)	-E+8F	3E-16F
	(4, 10224), (3627,10226)	-E+8F	3E+40F
	(3628,13371), (3861, 11250)	-E+9F	3E+5F
	(3530,13371), (3628, 11250)	-E+11F	3E-F
	(3,13371), (5,11250), (10224, 10226), (12084, 15761)	-E+12F	3E-4F
	(546, 10224), (3853,10226)	-E+12F	3E+28F
	(140,11250), (548,13371), (12084, 13383)	-E+14F	3E-10F
	(3850,10224), (10226,12102)	-E+14F	3E+22F
	(4,10226), (5,10224), (13371, 13406)	-E+16F	3E+16F
	(3853, 5498), (3853,10204)	-E+16F	3E+80F
	(548, 11250), (12103,13371)	-E+18F	3E-22F
	(3628, 10224), (3861,10226)	-E+18F	3E+10F
	(20,13371), (550, 11250)	-E+20F	3E-28F
	(140, 10224), (546,10226)	-E+20F	3E+4F
	(5498, 12102), (10204,12102)	-E+20F	3E+68F
	(3856,10226), (10224, 12108)	-E+21F	3E+F
	(3530, 10224), (3850,10226)	-E+22F	3E-2F
	(4, 5498), (4, 10204)	-E+24F	3E+56F
	(140,10226), (548, 10224)	-E+28F	3E-20F
	(3861, 5498), (3861, 10204)	-E+28F	3E+44F

	(3, 10226), (550, 10224), (11250, 15331), (12084, 12107), (13371, 15332)	-E+32F	3E-32F
	(546, 5498), (546,10204)	-E+32F	3E+32F
	(548, 10226), (10224, 12103)	-E+36F	3E-44F
	(3850, 5498), (3850,10204)	-E+36F	3E+20F
	(5498, 12811), (10204, 12811)	-E+38F	3E+14F
	(20, 10224), (550, 10226)	-E+40F	3E-56F
	(5, 5498), (5, 10204), (10125, 10224)	-E+40F	3E+8F
	(3628, 5498), (3628, 10204)	-E+44F	3E-4F
	(140, 5498), (140, 10204)	-E+48F	3E-16F
	(5498, 12108), (10204, 12108)	-E+50F	3E-22F
	(3530, 5498), (3530, 10204)	-E+52F	3E-28F
	(548, 10204), (3861, 10212)	-E+64F	3E+64F
	(550, 5498), (550, 10204)	-E+72F	3E-88F
	(546, 10212), (10224, 12010)	-E+72F	3E+40F
	(382, 13406), (3146, 15332)	E-8F	-3E+88F
	(382, 1658), (3627, 15761)	E	-3E+32F
	(382, 15331), (3627, 13406)	E	-3E+64F
	(3627, 13383), (3853, 15761)	E+2F	-3E+26F
	(3627, 14070), (3830, 10154)	E+3F	-3E+15F
	(4, 15761), (1658, 3627), (3853, 13383)	E+4F	-3E+20F
	(3627, 10020), (3853, 13406)	E+4F	-3E+52F
	(26, 546), (13383, 15761)	E+5F	-3E+F
	(3861, 15761), (12102, 13383)	E+5F	-3E+17F
	(4, 13383), (546, 15761), (1658, 3853)	E+6F	-3E+14F
	(3, 10244), (3, 10244)	E+7F	-3E-7F
	(26, 140), (1658, 13383)	E+7F	-3E-5F
	(1658, 12102), (3850, 15761), (3861,13383)	E+7F	-3E+11F
	(2, 10154), (5, 14070)	E+9F	-3E-3F
	(1658, 3861), (3628, 15761), (3850, 13383)	E+9F	-3E+5F
	(26, 550), (12107, 15332)	E+10F	-3E-14F
	(2, 14070), (549, 10154)	E+10F	-3E-6F
	(5, 13383), (140, 15761), (546, 1658)	E+10F	-3E+2F

	(3861, 13406), (10020, 12102)	E+10F	-3E+34F
	(1658, 3850), (3530, 15761), (3628, 13383)	E+11F	-3E-F
	(3, 14070), (8703, 10154)	E+12F	-3E-12F
	(4, 10020), (546, 13406), (3853, 15331), (12101, 15330)	E+12F	-3E+28F
	(1658, 3628), (3530, 13383)	E+13F	-3E-7F
	(376, 14070), (550, 10154)	E+14F	-3E-18F
	(140, 1658), (548, 15761)	E+14F	-3E-10F
	(3850,13406), (3861, 10020), (12102, 15331)	E+14F	-3E+22F
	(550, 14070), (3534, 10154)	E+15F	-3E-21F
	(4, 15331), (5, 13406), (546, 10020), (3627, 15332), (3845, 15330), (10224, 15761)	E+16F	-3E+16F
	(548, 1658), (550, 13383), (12103, 15761)	E+18F	-3E-22F
	(3628, 13406), (3850, 10020), (3860, 15330), (3861, 15331)	E+18F	-3E+10F
	(20, 15761), (550, 1658), (12103, 13383), (15331, 15332)	E+20F	-3E-28F
	(5, 10020), (546, 15331), (3853, 15332), (10224, 13383)	E+20F	-3E+4F
	(3856, 15331), (12108, 13406)	E+21F	-3E+F
	(20, 13383), (1658, 12103)	E+22F	-3E-34F
	(3628, 10020), (3530, 13406), (3850, 15331), (10109, 15330), (12102, 15332)	E+22F	-3E-2F
	(376, 10201), (9909, 12084)	E+24F	-3E-24F
	(3628, 15331), (3861, 15332), (11812, 15330)	E+26F	-3E-14F
	(3, 10020), (140, 15331), (546, 15332), (548, 13406), (10226, 13383), (12100, 15330)	E+28F	-3E-20F
	(3856, 15332), (12108, 15331)	E+29F	-3E-23F
	(3530, 15331), (3850, 15332)	E+30F	-3E-26F

	(3, 15331), (5, 15332), (548, 10020), (1658, 10226), (8703, 15330), (11250, 12107)	E+32F	-3E-32F
	(140, 15332), (548, 15331),(550, 10020), (12103, 13406)	E+36F	-3E-44F
	(3, 15332), (20, 13406), (550, 15331), (10020, 12103)	E+40F	-3E-56F
	(5, 10125), (5498, 13406), (10204, 13406)	E+40F	-3E+8F
	(20, 10020), (548, 15332), (12103, 15331)	E+44F	-3E-68F
	(20, 15331), (550, 15332)	E+48F	-3E-80F
	(140, 10125), (10212, 12010)	E+48F	-3E-16F
	(3, 10125), (5498, 15331), (10204, 15331)	E+56F	-3E-40F
	(550, 10125), (5498, 15332), (10204, 15332)	E+72F	-3E-88F
	(5498, 12010), (10204, 12010)	E+88F	-3E-8F
	(3853,14070), (10154, 12101)	2E+9F	-6E+21F
	(10154, 14893), (12101, 14070)	2E+11F	-6E+15F
	(140, 14070), (10154, 12100)	2E+21F	-6E-15F
	(1658, 3856), (12108, 15761)	2E+21F	-6E+F
	(3830, 13383), (12101, 15761)	3E+10F	-9E+66F
	(549,7387), (9909, 10154)	3E+11F	-9E-9F
	(26, 15761), (7387, 13371)	3E+12F	-9E-4F
	(4, 12107), (13406, 15761)	3E+16F	-9E+16F
	(1658, 3830), (3845, 15761), (12101,13383)	3E+16F	-9E+48F
	(2, 26), (10201, 14070)	3E+20F	-9E-12F
	(546, 12107), (13383, 13406)	3E+20F	-9E+4F
	(381, 15761), (12283, 14893)	3E+20F	-9E+36F
	(26, 549), (12107, 15330)	3E+22F	-9E-18F
	(1658, 12101), (3845, 13383), (5066,15761)	3E+22F	-9E+30F
	(5, 12107), (26, 10224), (1658, 13406)	3E+24F	-9E-8F
	(3860, 13383), (10109, 15761)	3E+25F	-9E+21F
	(381, 13383), (547, 15761), (1658, 14893)	3E+26F	-9E+18F
	(140, 12107), (13383, 15331)	3E+28F	-9E-20F
	(2, 15761), (1658, 3845), (5066, 13383)	3E+28F	-9E+12F

	(10109, 13383), (11812, 15761)	3E+31F	-9E+3F
	(3, 12107), (26, 10226), (550, 13406), (1658, 15331), (15332, 15761)	3E+32F	-9E-32F
	(381, 1658), (547, 13383), (549, 15761) (13406, 15330)	3E+32F	-9E
	(3830, 15331), (3845, 13406), (10020, 12101)	3E+32F	-9E+96F
	(2, 13383), (1658, 5066), (12100, 15761)	3E+34F	-9E-6F
	(1658, 11737), (10124, 13383), (14891,15761)	3E+35F	-9E-9F
	(548, 12107), (13383, 15332)	3E+36F	-9E-44F
	(1658, 10109), (11812, 13383)	3E+37F	-9E-15F
	(547, 1658), (549, 13383)	3E+38F	-9E-18F
	(550, 12107), (1658, 15332)	3E+40F	-9E-56F
	(4, 15330), (381, 13406), (3543, 15332), (10020, 14893)	3E+40F	-9E+72F
	(1658, 10124), (13383, 14891)	3E+41F	-9E-27F
	(376,15761), (549, 1658)	3E+44F	-9E-36F
	(3845, 10020), (5066, 13406), (12101,15331)	3E+44F	-9E+60F
	(1658, 12100), (8703, 13383)	3E+46F	-9E-42F
	(3861, 15330), (11737, 13406)	3E+46F	-9E+54F
	(5498, 13383), (10204, 13383)	3E+48F	-9E-16F
	(3860, 10020), (10109, 13406)	3E+50F	-9E+42F
	(1658, 8703), (3534, 15761)	3E+52F	-9E-60F
	(381, 10020), (546, 15330), (547, 13406), (14893, 15331)	3E+52F	-9E+36F
	(1658, 5498), (1658, 10204), (10125, 15331)	3E+56F	-9E-40F
	(2, 13406), (3830, 15332), (3845, 15331), (5066, 10020)	3E+56F	-9E+24F
	(3850, 15330), (10020, 11737), (10124, 13406)	3E+58F	-9E+18F
	(3860, 15331), (10020, 10109),	3E+62F	-9E+6F

	(11737, 15330), (11812, 13406)		
	(5, 15330), (381, 15331), (547, 10020), (549, 13406)	3E+64F	-9E
	(2, 10020), (5066, 15331), (12100, 13406), (12101, 15332)	3E+68F	-9E-12F
	(3628, 15330), (10020, 10124), (11737, 15331),(13406, 14891)	3E+70F	-9E-18F
	(10020, 11812), (10109, 15331)	3E+74F	-9E-30F
	(140, 15330), (547, 15331), (549, 10020), (14893, 15332)	3E+76F	-9E-36F
	(3530, 15330), (10020, 14891), (10124, 15331)	3E+82F	-9E-54F
	(3860, 15332), (11812, 15331), (14891, 15330)	3E+86F	-9E-66F
	(140, 12010), (10212, 13406)	3E+88F	-9E-8F
	(3, 15330), (376, 13406), (381, 15332), (549, 15331)	3E+88F	-9E-72F
	(5066, 15332), (12100, 15331)	3E+92F	-9E-84F
	(11737, 15332), (14891, 15331)	3E+94F	-9E-90F
	(3545, 11799), (7426, 14269)	-5E-68F	51E-84F
	(468, 12105), (2070, 10096)	-5E-56F	31E+40F
	(3850, 11799), (7575, 12102)	-5E-56F	47E-88F
	(7575, 11558), (10096, 11799), (10151, 12105)	-5E-40F	31E-8F
	(23, 381), (7426, 11799)	-5E-32F	27E
	(3830, 7575), (3845, 11799)	-5E-32F	39E-96F
	(5, 5899), (23, 11563)	-5E-24F	23E+8F
	(632, 11799), 3843, 7575)	-3E-96F	49E-32F
	(3628, 11799), (3861, 7575)	-3E-72F	41E-40F
	(7575, 10096), (10295, 11558)	-3E-56F	25E+40F
	(186, 11558), (546, 2070), (10096, 11563)	-3E-40F	25E-8F
	(5, 23), (2070, 11563), (7575, 11799)	-3E-24F	17E+8F
	(403, 11558), (546, 11799), (3853, 7575), (7426, 12101)	-3E-24F	25E-56F

	(23, 2070), (186, 5899)	-3E-16F	13E+16F
	(23, 11799), (403, 5899)	-3E-12F	13E+4F
	(382, 7575), (3627, 11799)	-3E	17E-64F
	(11558, 13473)	-3E	25E+48F
	(3146, 11799), (5073, 10295)	-3E+12F	13E-68F
	(3850, 7575), (7426, 10109), (10295, 12102)	-E-88F	35E+8F
	(3523, 11799), (3857, 7575)	-E-76F	31E+4F
	(5, 7426), (381, 7575), (549, 11799)	-E-64F	27E
	(186, 10096), (3853, 13619), (10257, 12105)	-E-56F	19E+40F
	(3628, 11558), (3850, 11563), (3861, 10096)	-E-56F	35E-88F
	(631, 11799), (3858, 7575), (5076, 10295)	-E-52F	23E-4F
	(468, 10096), (2072, 12105)	-E-48F	19E+16F
	(3545, 7426), (5054, 11799)	-E-46F	21E-6F
	(23, 550), (7575, 10295), (11563, 13619)	-E-40F	11E+56F
	(2, 2070), (3830, 13619)	-E-40F	15E+24F
	(140, 11799), (546, 7575), (403, 10096), (3853, 10295), (5066, 7426), (10297, 12105)	-E-40F	19E-8F
	(381, 11563), (547, 11558), (10096, 14893)	-E-40F	27E-72F
	(186, 7575), (10295, 11563)	-E-32F	11E+32F
	(186, 5076), (3858, 11563), (11558, 12812)	-E-32F	23E-64F
	(23, 376), (7426, 10295)	-E-28F	9E+36F
	(140, 12105), (468, 7575)	-E-28F	11E+20F
	(2, 11799), (3830, 10295), (3845, 7575)	-E-28F	15E-12F
	(20, 5899), (2070, 13619)	-E-24F	7E+40F
	(4, 10096), (5, 11558), (186, 3853), (546, 11563)	-E-24F	19E-56F
	(2070, 10295), (11799, 13619)	-E-20F	7E+28F
	(468, 11563), (7575, 10151)	-E-20F	11E-4F
	(468, 7426), (547, 12105)	-E-19F	9E+9F
	(3839, 7426), (5055, 11799)	-E-19F	12E-15F

	(381, 2070), (403, 7426), (3543, 13619)	-E-16F	9E
	(4, 7575), (5, 11799), (403, 11563), (3627, 10295), (5056, 7426),	-E-16F	11E-16F
	(186, 3830), (3845, 11563), (5066, 11558), (10096, 12101)	-E-16F	15E-48F
	(23, 10257), (468, 2070)	-E-14F	7E+10F
	(23, 2072), (186, 11799), (403, 2070), (858, 5899), (7575, 11563)	-E-12F	7E+4F
	(23, 10297), (546, 12105), (468, 11799), (2070, 10151)	-E-10F	7E-2F
	(4, 7426), (381, 11799), (3543, 10295)	-E-10F	9E-18F
	(4, 11563), (186, 3627), (546, 11558), (3853, 10096)	-E-8F	11E-40F
	(23, 403), (2070, 11799), (2072, 5899)	-E-6F	5E+2F
	(23, 10151), (5899, 10297), (11558, 12105)	-E-5F	5E-F
	(4, 11799), (382, 10295), (3627, 7575), (3830, 7426)	-E-4F	7E-20F
	(186, 3543), (11558, 14893)	-E-4F	9E-36F
	(3543, 7426), (3830, 11799)	-E-F	6E-21F
	(382, 2070), (3146, 13619)	-E	5E-16F
	(186, 382), (3627, 11563), (3853, 11558), (5899, 10296)	-E	7E-32F
	(382, 15646), (403, 3627)	-E	11E-64F
	(382, 11799), (3146, 10295)	-E+2F	5E-22F
	(3146, 13473), (5073, 10257)	-E+9F	5E-43F
	(382, 13473), (3146, 10257)	-E+10F	7E-62F
	(468, 10295), (548, 12105), (10151, 13619)	-9F	2E+11F
	(2070, 10257), (10151, 10295)	-7F	2E+5F
	(186, 10295), (403, 13619)	-5F	E+7F
	(186, 10151), (2070, 10297), (10257, 11799)	-5F	2E-F
	(4, 468), (403, 10151), (10297, 11799)	-3F	2E-7F
	(4, 13473), (382, 10257)	F	2E-19F
	(3146, 10296), (5073, 7574)	6F	E-26F

	(2, 7575), (549, 7426), (3845, 10295), (8703, 11799)	E-80F	21E+48F
	(3530, 11558), (3628, 11563), (3850, 10096)	E-72F	29E-40F
	(632, 7575), (3522, 11799), (3843, 10295)	E-68F	17E+44F
	(3524, 7426), (3839, 10295)	E-62F	15E+42F
	(548, 11799), (7426, 12100)	E-56F	13E+40F
	(2, 11563), (11558, 12100)	E-56F	21E-24F
	(3832, 10295), (7575, 14869)	E-50F	11E+38F
	(3, 7426), (376, 11799), (381, 10295), (549, 7575)	E-44F	9E+36F
	(10096, 14892), (11539, 11563)	E-44F	15E-12F
	(5, 13619), (550, 2070)	E-40F	5E+56F
	(3, 11558), (5, 10096), (140, 11563), (186, 546)	E-40F	13E-8F
	(186, 3832), (11563, 14869)	E-36F	11E-4F
	(3, 7575), (5, 10295), (550, 11799), (8703, 7426)	E-32F	5E+32F
	(186, 381), (547, 10096), (549, 11563), (2072, 7426), (5899, 10989)	E-32F	9E
	(468, 546), (10257, 11558)	E-32F	13E-32F
	(403, 3845), (3830, 15646)	E-32F	21E-96F
	(2, 10295), (3534, 11799)	E-26F	3E+30F
	(381, 468), (7426, 10297)	E-26F	9E-18F
	(3, 13619), (20, 2070)	E-24F	E+40F
	(3, 11563), (5, 186), (548, 11558), (2072, 7575)	E-24F	5E+8F
	(403, 546), (2072, 11558), (3853, 15646)	E-24F	13E-56F
	(3, 10295), (20, 11799), (550, 7575), (2072, 13619), (3534, 7426)	E-20F	E+28F
	(2, 186), (8703, 11563)	E-20F	3E+12F
	(5, 468), (7575, 10297), (10257, 11563)	E-20F	5E-4F
	(10257, 10295), (10297, 13619)	E-18F	E+22F
	(20, 7426), (376, 10295)	E-17F	27F

	(4, 15646), (5, 403), (2072, 11563)	E-16F	5E-16F
	(546, 10151), (10297, 11558), (12102, 15350)	E-16F	13E-80F
	(20, 10295), (1657, 11799), (7428, 11001)	E-14F	-E+26F
	(3, 468), (10295, 10297)	E-14F	E+10F
	(2, 403), (3845, 15646)	E-14F	3E-6F
	(403, 631), (3858, 15646)	E-13F	2E-F
	(20, 186), (2071, 13619)	E-12F	-E+20F
	(3, 403), (5, 15646), (468, 10257), (858, 2070), (2071, 11799)	E-12F	E+4F
	(5, 10151), (3861, 15350), (10297, 11563)	E-12F	5E-28F
	(376, 403), (2071, 7426)	E-11F	9F
	(20, 403), (550, 15646), (858, 13619), (2071, 10295)	E-10F	-E+14F
	(3, 10151), (186, 10297), (403, 10257), (468, 2072), (3628, 15350)	E-10F	E-2F
	(3, 10257), (20, 13473), (468, 2071)	E-7F	-E+5F
	(3, 13473), (4, 10257), (403, 10297), (2072, 10151)	E-6F	E-14F
	(20, 858), (7464, 10295)	E-5F	-2E+7F
	(2, 13473), (3830, 10257)	E-5F	3E-33F
	(3153, 11799), (10151, 10297)	E-4F	E-20F
	(5, 13473), (3627, 10257)	E-4F	5E-52F
	(403, 7464), (858, 2071)	E-3F	-2E+F
	(468, 3153), (858, 10151), (2072, 10297)	E-3F	-E-7F
	(381, 13473), (3543, 10257)	E-2F	9E-90F
	(858, 3153), (2072, 7574)	E-F	-2E-5F
	(4, 3153), (186, 10296)	E	- E-16F
	(858, 3543), 7426, 10296)	E+F	-27F
	(4, 10296), (382, 7574), (3146, 7464)	E+4F	-E-28F
	(382, 858), (10296, 11799)	E+4F	E-44F
	(3146, 10989), (3543, 10296)	E+10F	-54F
	(382, 10296), (3146, 7574), (5073, 7464)	E+16F	E-80F
	(3522, 7426), (5071, 10295)	2E-61F	9E+63F

	(376, 10151), (14891, 15350)	2E-19F	9F
	(1657, 10257), (3529, 13473)	2E-15F	-4E+29F
	(376, 13473), (381, 10257)	2E-13F	-9F
	(631, 13473), (5076, 10257)	2E-11F	4E-47F
	(3529, 7464), (5059, 10296)	2E-10F	-5E+22F
	(2, 858), (7426, 10989)	2E-7F	-3E-3F
	(2, 10296), (3830, 7574)	2E+2F	-3E-30F
	(468, 15350), (3530, 11563), (3628, 10096)	3E-88F	23E+8F
	(140, 10295), (11799, 12103)	3E-72F	7E+88F
	(3, 10096), (550, 11558), (548, 11563)	3E-56F	7E+40F
	(10151, 15350), (12102, 15646)	3E-56F	23E-88F
	(20, 7575), (550, 10295)	3E-48F	-E+80F
	(858, 12105), (10096, 10257)	3E-48F	7E+16F
	(20, 11563), (186, 550), (10096, 12103)	3E-40F	-E+56F
	(403, 3523), (3857, 15646)	3E-38F	5E+2F
	(1657, 10295), (3529, 11799)	3E-36F	-5E+76F
	(403, 3522), (632, 15646)	3E-34F	E+22F
	(3, 15646), (403, 550), (2071, 7575)	3E-32F	-E+32F
	(140, 10151), (3153, 12105), (10096, 10297)	3E-32F	7E-32F
	(20, 10257), (1657, 13473)	3E-22F	-5E+34F
	(5, 10257), (550, 13473)	3E-20F	-E-4F
	(3522, 13473), (3843, 10257)	3E-19F	E-23F
	(2070, 7464), (7574, 13619)	3E-16F	-5E+16F
	(858, 11563), (3153, 7575)	3E-16F	-E-16F
	(140, 13473), (3853, 10257)	3E-16F	7E-80F
	(20, 7464), (1657, 7574), (3529, 10296)	3E-12F	-7E+20F
	(3, 858), (2071, 2072), (7464, 11799), (7574, 10295)	3E-12F	-5E+4F
	(2071, 7464), (5189, 13619)	3E-8F	-7E+8F
	(3, 3153), (186, 7574), (858, 2072), (5189, 5899)	3E-8F	-5E-8F
	(858, 7464), (5189, 10295)	3E-6F	-7E+2F

	(468, 7574), (858, 10297), (3153, 10257)	3E-6F	-5E-14F
	(186, 5189), (3153, 7464)	3E-4F	-7E-4F
	(403, 7574), (2072, 3153)	3E-4F	-5E-20F
	(3153, 10297), (7574, 10151)	3E-2F	-5E-26F
	(3, 10296), (4, 7574), (382, 7464)	3E	-5E-32F
	(858, 3627), (7575, 10296)	3E	-E-64F
	(3153, 3627), (10296, 11563)	3E+8F	-E-88F
	(3534, 10257), (11001, 13473)	4E-29F	-6E+39F
	(20, 10989), (376, 7464)	4E-14F	-9E+18F
	(858, 10989), (5189, 7426)	4E-5F	-9E-9F
	(3543, 5189), (10296, 10989)	4E+4F	-9E-36F
	(20, 11558), (550, 10096), (11563, 12103)	5E-72F	E+88F
	(546, 15350), (3628, 10151)	5E-56F	17E-88F
	(549, 10151), (11737, 15350)	5E-52F	9E-36F
	(548, 10151), (3530, 15350)	5E-48F	E+16F
	(2, 10257), (3534, 13473)	5E-34F	-3E+6F
	(546, 10257), (548, 13473)	5E-32F	E-32F
	(376, 858), (7426, 7464), (10295, 10989)	5E-22F	-9E+18F
	(3, 7464), (20, 7574), (1657, 10296)	5E-16F	-11E+16F
	(376, 3153), (186, 10989)	5E-16F	-9E
	(5, 858), (7574, 7575)	5E-16F	-7E-16F
	(2070, 5189), (2071, 7574)	5E-8F	-11E-8F
	(5, 3153), (7574, 11563)	5E-8F	-7E-40F
	(858, 7574), (5189, 11799)	5E-4F	-11E-20F
	(4, 10989), (376, 10296), (381, 7574), (3543, 7464)	5E-4F	-9E-36F
	(382, 5189), (7574, 10296)	5E+8F	-11E-56F
	(5, 10296), (3627, 7574)	5E+8F	-7E-88F