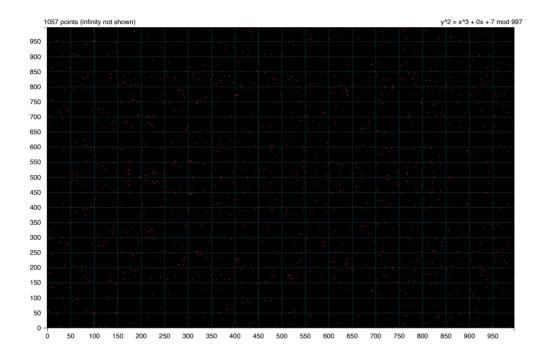
Elliptic Curves over Finite Fields

Here you can plot the points of an elliptic curve under modular arithmetic (i.e. over \mathbb{F}_p). Enter curve parameters and press 'Draw!' to get the plot and a tabulation of the point additions on this curve. Interested in *arbitrary* curves over \mathbb{F}_p ? Try this site instead.

Note: <u>Since it depends on multiplicative inverses</u>, EC Point addition will only work for *prime moduli* like 2,3,5,7,11,13,17,19,23,29,31,...,109,...;-)

Draw the elliptic curve $y^2=x^3+ax+b \mod r$, where a: 0 b: 7 r: 997 DRAW!



Point Detail

Click/tap on a point in (table or plot) to show details about that point.

Table of Point Additions

+	∞	(3,55)	(3,942)	(4,298)	(4,699)	(6,182)	(6,815)	(7,321)	(7,676)	(8,292)	(8,705)	(10,134)	(10,863)	(12,242)
∞	∞	(3,55)	(3,942)	(4,298)	(4,699)	(6,182)	(6,815)	(7,321)	(7,676)	(8,292)	(8,705)	(10,134)	(10,863)	(12,242)
(3,55)	(3,55)	(80,624)	8	(219,298)	(974.737)	(343,839)	(250,515)	(175,471)	(850,800)	(162,185)	(937,159)	(562,188)	(716,253)	(109,512
(3,942)	(3,942)	∞	(80,373)	(974,260)	(219,699)	(250,482)	(343,158)	(850,197)	(175,526)	(937,838)	(162,812)	(716,744)	(562,809)	(77,604)
(4,298)	(4,298)	(219,298)	(974,260)	(295,341)	∞	(363,584)	(761,925)	(934,548)	(910,201)	(738,803)	(558,660)	(290,208)	(185,770)	(33,902)
(4,699)	(4,699)	(974,737)	(219,699)	∞	(295,656)	(761,72)	(363,413)	(910,796)	(934,449)	(558,337)	(738,194)	(185,227)	(290,789)	(303,554
(6,182)	(6,182)	(343,839)	(250,482)	(363,584)	(761,72)	(703,159)	∞	(365,764)	(755,696)	(20,45)	(323,172)	(128,285)	(243,595)	(82,55)
(6,815)	(6,815)	(250,515)	(343,158)	(761,925)	(363,413)	∞	(703,838)	(755,301)	(365,233)	(323,825)	(20,952)	(243,402)	(128,712)	(877,113)
(7,321)	(7,321)	(175,471)	(850,197)	(934,548)	(910,796)	(365,764)	(755,301)	(146,947)	∞	(826,499)	(882,665)	(102,948)	(941,94)	(111,724)
(7,676)	(7,676)	(850,800)	(175,526)	(910,201)	(934,449)	(755,696)	(365,233)	∞	(146,50)	(882,332)	(826,498)	(941,903)	(102,49)	(616,740
(8,292)	(8,292)	(162,185)	(937,838)	(738,803)	(558,337)	(20,45)	(323,825)	(826,499)	(882,332)	(774,699)	8	(241,169)	(486,825)	(884,688
(8,705)	(8,705)	(937,159)	(162,812)	(558,660)	(738,194)	(323,172)	(20,952)	(882,665)	(826,498)	8	(774,298)	(486,172)	(241,828)	(604,486
(10,134)	(10,134)	(562,188)	(716,744)	(290,208)	(185,227)	(128,285)	(243,402)	(102,948)	(941,903)	(241,169)	(486,172)	(236,238)	∞	(900,659
(10,863)	(10,863)	(716,253)	(562,809)	(185,770)	(290,789)	(243,595)	(128,712)	(941,94)	(102,49)	(486,825)	(241,828)	∞	(236,759)	(427,501
(12,242)	(12,242)	(109,512)	(77,604)	(33,902)	(303,554)	(82,55)	(877,113)	(111,724)	(616,740)	(884,688)	(604,486)	(900,659)	(427,501)	(866,792
(12,755)	(12,755)	(77,393)	(109,485)	(303,443)	(33,95)	(877,884)	(82,942)	(616,257)	(111,273)	(604,511)	(884,309)	(427,496)	(900,338)	∞
(20,45)	(20,45)	(895,587)	(53,406)	(892,284)	(198,501)	(553,257)	(8,292)	(878,225)	(158,748)	(638,213)	(6,182)	(119,537)	(759,984)	(995,161
(20,952)	(20,952)	(53,591)	(895,410)	(198,496)	(892,713)	(8,705)	(553,740)	(158,249)	(878,772)	(6,815)	(638,784)	(759,13)	(119,460)	(554,10)
(26,280)	(26,280)	(879,45)	(398,67)	(704,456)	(67,93)	(660,402)	(372,501)	(756,823)	(661,466)	(188,825)	(225,486)	(94,595)	(431,83)	(417,83)
(26,717)	(26,717)	(398,930)	(879,952)	(67,904)	(704,541)	(372,496)	(660,595)	(661,531)	(756,174)	(225,511)	(188,172)	(431,914)	(94,402)	(518,821

						Elliptic	Curves ove	er Finite Fi	ielas					
(27,194)	(27,194)	(438,292)	(249,743)	(389,836)	(142,337)	(476,404)	(638,213)	(612,779)	(816,177)	(671,504)	(553,257)	(110,686)	(594,537)	(51,481)
(27,803)	(27,803)	(249,254)	(438,705)	(142,660)	(389,161)	(638,784)	(476,593)	(816,820)	(612,218)	(553,740)	(671,493)	(594,460)	(110,311)	(283,789
(28,5)	(28,5)	(970,882)	(892,713)	(53,591)	(548,409)	(762,9)	(786,531)	(101,49)	(943,176)	(975,773)	(192,750)	(318,744)	(794,948)	(970,115
(28,992)	(28,992)	(892,284)		(548,588)	(53,406)		(762,988)			(192,247)		(794,49)	(318,253)	
(29,285)	(29,285)	(589,283)		(323,825)	(53,591)	(558,337)	(447,851)	(906,425)		(517,210)	(363,413)	(397,516)	(138,827)	(921,743
(29,712)	(29,712)	(198,501)	(589,714)	(53,406)	(323,172)	(447,146)	(558,660)		(906,572)		(517,787)	(138,170)	(397,481)	(920,987
(30,145)	(30,145)		(160,406)		(597,586)	(567,309)			(300,670)				(521,832)	(464,89)
(30,852)							(567,688)							
	(30,852)	(160,591)		(597,411)	(536,5)	(321,745)		(300,327)				(521,165)	(227,702)	(171,684
(32,301)	(32,301)	(344,9)	(712,15)	(975,773)	(222,833)	(713,225)		(839,544)		(630,721)			(866,792)	(32,696)
(32,696)	(32,696)		(344,988)	(222,164)	(975,224)	(577,187)		_			(630,276)		(63,491)	(900,338
(33,95)	(33,95)	(852,807)	(986,125)	(12,755)	(641,226)	(993,672)			(216,965)		(674,391)		(614,319)	(4,699)
(33,902)	(33,902)	(986,872)	(852,190)	(641,771)	(12,242)	(229,518)	(993,325)	(216,32)	(596,493)	(674,606)	(983,585)	(614,678)	(203,587)	(312,157)
(34,411)	(34,411)	(209,506)	(356,409)	(334,453)	(772,293)	(224,670)	(392,624)	(524,282)	(534,213)	(709,756)	(723,401)	(856,321)	(283,789)	(769,514
(34,586)	(34,586)	(356,588)	(209,491)	(772,704)	(334,544)	(392,373)	(224,327)	(534,784)	(524,715)	(723,596)	(709,241)	(283,208)	(856,676)	(594,537
(36,260)	(36,260)	(537,797)	(942,518)	(752,341)	(525,373)	(882,332)	(51,516)	(323,825)	(177,800)	(995,836)	(365,233)	(827,815)	(573,422)	(638,784
(36,737)	(36,737)	(942,479)	(537,200)	(525,624)	(752,656)	(51,481)	(882,665)	(177,197)	(323,172)	(365,764)	(995,161)	(573,575)	(827,182)	(798,745
(37,209)	(37,209)	(291,224)	(831,77)	(251,489)	(228,482)	(186,15)	(723,401)	(577,810)	(822,213)	(224,670)	(781,827)	(650,193)	(232,194)	(133,157)
(37,788)	(37,788)	(831,920)	(291,773)	(228,515)	(251,508)	(723,596)	(186,982)	(822,784)	(577,187)	(781,170)	(224,327)	(232,803)	(650,804)	(822,213
(40,72)	(40,72)	(534,213)	(62,95)	(657,755)	(834,962)	(306,554)	(203,587)	(356,409)	(754,126)	(46,717)	(502,904)	(229,518)	(232,803)	(814,212
(40,925)	(40,925)	(62,902)	(534,784)	(834,35)	(657,242)	(203,410)	(306,443)			(502,93)	(46,280)	(232,194)	(229,479)	(557,956
(43,273)	(43,273)	(51,481)	(101,49)	(173,475)		(453,524)	(537,200)	(838,787)		(366,586)	(820,145)			(943,821
(43,724)	(43,724)	(101,948)	(51,516)	(208,388)		(537,797)	(453,473)	(970,115)	(838,210)		(366,411)	(653,485)		(249,254
(46,280)														
	(46,280)	(702,345)	(896,587)	(174,487)	(110,311)	(121,284)	(49,134)	(443,393)	(56,205)	(40,925)		(142,660)		(923,206
(46,717)	(46,717)	(896,410)	-	(110,686)	(174,510)	(49,863)	(121,713)	(56,792)	(443,604)		(40,72)	(824,254)	(142,337)	(433,5)
(49,134)	(49,134)	(514,823)	(298,35)	(493,753)	(757,447)	(46,280)	(549,481)		(366,586)					(99,982)
(49,863)	(49,863)	(298,962)	(514,174)	(757,550)	(493,244)	(549,516)	(46,717)		(906,425)		(306,554)		(938,134)	(244,930
(50,345)	(50,345)	(941,903)	(668,335)	(54,908)	(205,371)	(672,659)	(89,842)	(716,744)	(927,192)	(567,688)	(809,606)	(533,821)	(175,526)	(729,412
(50,652)	(50,652)	(668,662)	(941,94)	(205,626)	(54,89)	(89,155)	(672,338)	(927,805)	(716,253)	(809,391)	(567,309)	(175,471)	(533,176)	(720,200
(51,481)	(51,481)	(570,521)	(43,273)	(903,126)	(435,791)	(254,851)	(36,737)	(532,489)	(610,161)	(506,371)	(922,903)	(271,721)	(164,815)	(965,769
(51,516)	(51,516)	(43,724)	(570,476)	(435,206)	(903,871)	(36,260)	(254,146)	(610,836)	(532,508)	(922,94)	(506,626)	(164,182)	(271,276)	(27,803)
(53,406)	(53,406)	(20,45)	(630,276)	(28,992)	(29,712)	(601,546)	(937,838)	(416,202)	(227,702)	(712,982)	(250,482)	(300,327)	(195,709)	(948,2)
(53,591)	(53,591)	(630,721)	(20,952)	(29,285)	(28,5)	(937,159)	(601,451)	(227,295)	(416,795)	(250,515)	(712,15)	(195,288)	(300,670)	(339,233
(54,89)	(54,89)	(165,834)	(396,1)	(50,652)	(370,177)	(267,386)	(714,422)	(296,851)	(489,571)	(856,676)	(613,201)	(709,241)	(746,845)	(166,319
(54,908)	(54,908)	(396,996)	(165,163)	(370,820)	(50,345)	(714,575)	(267,611)	(489,426)	(296,146)	(613,796)	(856,321)	(746,152)	(709,756)	(511,391)
(55,487)	(55,487)	(188,172)	(704,456)	(624,454)	(879,45)	(584,839)	(98,45)	(966,392)	(526,59)	(879,952)	(427,496)	(835,41)	(604,511)	(241,169
(55,510)	(55,510)	(704,541)	(188,825)		(624,543)	(98,952)	(584,158)	(526,938)	(966,605)			(604,486)	(835,956)	(139,404
(56,205)				(490,993)		(75,205)	(366,586)		(242,769)					
(56,792)	(56,792)			(778,325)		(366,411)	(75,792)	(242,228)			(356,409)			
(59,2)	(59,2)			(344,988)		(250,515)					(601,451)			_
(59,995)	(59,995)	(703,159)		(766,958)		(242,769)			(368,388)					
(61,385)	(61,385)					(236,238)			(438,705)					
(61,612)														
	(61,612)	(725,506)			(857,498)				(449,771)					
(62,95)	(62,95)	(40,72)				(383,920)								
(62,902)	(62,902)	(103,571)		(602,41)		(138,827)			(143,451)					-
(63,491)	(63,491)					(104,756)					(103,571)		(76,522)	(694,123
(63,506)	(63,506)	(286,626)	(328,755)	(180,332)	(829,293)	(477,604)	(104,241)	(888,988)	(645,335)	(103,426)	(302,395)			(866,205
(67,93)	(67,93)	(128,712)	(539,311)	(26,280)	(121,284)	(562,809)	(174,487)	(419,447)	(841,349)	(427,496)	(726,51)	(343,158)	(884,309)	(486,172
(67,904)	(67,904)	(539,686)	(128,285)	(121,713)	(26,717)	(174,510)	(562,188)	(841,648)	(419,550)	(726,946)	(427,501)	(884,688)	(343,839)	(436,981
(70,158)	(70,158)	(382,404)	(328,242)	(196,925)	(361,188)	(594,537)	(182,244)	(781,827)	(126,524)	(822,213)	(759,984)	(638,213)	(245,652)	(827,182
(70,839)	(70,839)	(328,755)	(382,593)	(361,809)	(196,72)	(182,753)	(594,460)	(126,473)	(781,170)	(759,13)	(822,784)	(245,345)	(638,784)	(224,670
(74,188)	(74,188)	(862,35)	(746,152)	(718,824)	(404,227)	(823,479)	(825,740)	(215,702)	(661,531)	(771,155)	(284,460)	(940,16)	(396,996)	(143,451)
(74,809)	(74,809)	(746,845)	(862,962)	(404,770)	(718,173)	(825,257)	(823,518)	(661,466)	(215,295)	(284,537)	(771,842)	(396,1)	(940,981)	(984,260
(75,205)	(75,205)	(501,403)	(412,849)	(841,349)	(362,837)	(473,327)	(56,205)	(121,284)	(422,659)	(153,804)	(217,319)	(765,115)	(463,471)	(733,403
(75,792)	(75.792)	(412,148)			(841,648)	(56,792)			(121,713)					
(76,475)	(76,475)	(86,164)	(355,67)	(859,965)		(339,233)			(293,764)					
(76,522)	(76,522)	(355,930)		(102,948)		(552,157)			(185,227)			(63,491)	(910,796)	-
						(623,849)								
(77,393)	(77,393)	(573,575)	(12,755)	(835,956)										(3,55)
(77,604)	(77,604)	(12,242)	(573,422)	(852,190)	(835,41)	(747,483)			(289,725)			(537,797)		
(78,170)	(78,170)	(555,295)	(925,280)	(658,456)			(223,672)		(143,546)					
(78,827)	(78,827)	(925,717)	(555,702)		(658,541)	(223,325)	(553,257)		(518,821)		(818,447)			(588,272
(80,373)	(80,373)	(3,942)	(618,16)	(242,228)	(823,479)	(766,39)		(686,684)		(957,759)		(798,252)		
(80,624)	(80,624)	(618,981)	(3,55)	(823,518)	(242,769)	(718,173)	(766,958)	(490,993)	(686,313)	(521,832)	(957,238)	(956,223)	(798,745)	(846,703
l						1								

(02 55)							Curves ove							
(82,55)	(82,55)	(912,942)	(747,483)	(229,518)	(774,699)	(429,984)	(12,242)	(788,548)	(431,83)	(995,161)	(738,803)	(756,823)	(834,962)	(691,874
(82,942)	(82,942)	(747,514)	(912,55)	(774,298)	(229,479)	(12,755)	(429,13)	(431,914)	(788,449)	(738,194)	(995,836)	(834,35)	(756,174)	(6,815)
(83,446)	(83,446)	(721,349)	(431,914)	(140,684)	(87,59)	(289,272)	(126,524)	(594,537)	(747,514)	(214,508)	(679,788)	(816,177)	(398,930)	(933,187
(83,551)	(83,551)	(431,83)	(721,648)	(87,938)	(140,313)	(126,473)	(289,725)	(747,483)	(594,460)	(679,209)	(214,489)	(398,67)	(816,820)	(524,282
(84,395)	(84,395)	(705,654)	(707,575)	(724,823)	(405,426)	(736,202)	(877,884)	(671,504)	(131,903)	(355,930)	(816,177)	(195,709)	(214,508)	(703,159
(84,602)	(84,602)	(707,422)	(705,343)	(405,571)	(724,174)	(877,113)	(736,795)	(131,94)	(671,493)	(816,820)	(355,67)	(214,489)	(195,288)	(926,173
(86,164)	(86,164)	(920,987)	(76,475)	(125,994)	(762,988)	(548,588)			(846,294)	(614,319)	(713,772)		(286,626)	(686,684
(86,833)	(86,833)	(76,522)	(920,10)	(762,9)	(125,3)	(452,401)	(548,409)	(846,703)		(713,225)	(614,678)		(674,606)	(589,283
(87,59)	(87,59)	(959,849)	(273,828)	(83,446)	(786,466)	(708,884)				(846,703)	(577,187)	(681.662)	(216,32)	(955,703
(87,938)	(87,938)	(273,169)		(786,531)	(83,551)	(548,409)		(614,319)	(781,827)		(846,294)		(681,335)	(957,759
(89,155)	(89,155)	(819,596)				(196,72)	(50,652)	(140,313)	(943,821)		(806,984)		(389,161)	(772,293
(89,842)	(89,842)	(107,454)	(819,401)	(267,611)	(594,537)	(50,345)	(196,925)	(943,176)		(806,13)	(99,15)	(389,836)		(838,210
(93,409)		(593,283)		(821,453)	(96,721)	(61,385)	(809,606)	(698,850)				(663,249)		(613,796
	(93,409)		, ,											
(93,588)	(93,588)	(193,703)	(593,714)	(96,276)	(821,544)	(809,391)	(61,612)	(322,753)				(908,888)		
(94,402)	(94,402)	(422,659)	(761,72)	(343,839)	(541,774)	(654,192)	(974,737)		(300,327)	(771,842)	(319,611)	(26,717)	(416,202)	(947,341
(94,595)	(94,595)	(761,925)	(422,338)	(541,223)	(343,158)	(974,260)	(654,805)	(300,670)		(319,386)		(416,795)	(26,280)	(547,531
(96,276)	(96,276)	(418,524)	(526,938)	(661,531)	(93,588)	(516,947)	(464,89)	(404,227)		(720,200)		(980,212)	(223,672)	(658,541
(96,721)	(96,721)	(526,59)	(418,473)	(93,409)	(661,466)	(464,908)	(516,50)	(704,456)	(404,770)	(465,845)	(720,797)	(223,325)	(980,785)	(567,688
(98,45)	(98,45)	(131,903)	(168,511)	(486,172)	(502,93)	(55,487)	(923,206)	(707,575)	(733,403)	(185,227)	(834,35)	(120,725)	(738,194)	(368,388
(98,952)	(98,952)	(168,486)	(131,94)	(502,904)	(486,825)	(923,791)	(55,510)	(733,594)	(707,422)	(834,962)	(185,770)	(738,803)	(120,272)	(121,713)
(99,15)	(99,15)	(639,210)	(111,724)	(421,388)	(228,515)	(809,606)	(923,791)	(519,515)	(109,512)	(89,842)	(980,212)	(413,192)	(720,200)	(49,863)
(99,982)	(99,982)	(111,273)	(639,787)	(228,482)	(421,609)	(923,206)	(809,391)	(109,485)	(519,482)	(980,785)	(89,155)	(720,797)	(413,805)	(175,526
(100,4)	(100,4)	(980,212)	(607,551)	(104,756)	(378,160)	(798,745)	(180,665)	(546,605)	(604,486)	(111,724)	(758,3)	(766,958)	(526,938)	(383,920
(100,993)	(100,993)	(607,446)	(980,785)	(378,837)	(104,241)	(180,332)	(798,252)	(604,511)	(546,392)	(758,994)	(111,273)	(526,59)	(766,39)	(882,332
(101,49)	(101,49)	(43,273)	(858,165)	(227,295)	(114,994)	(214,508)	(900,338)	(822,213)	(28,5)	(955,703)	(126,524)	(877,884)	(597,586)	(243,595
(101,948)	(101,948)	(858,832)	(43.724)	(114,3)	(227,702)	(900,659)	(214,489)	(28,992)	(822,784)	(126,473)	(955,294)	(597,411)	(877,113)	(577,810
(102,49)	(102,49)	(762,988)	(828,850)	(76,475)	(957,759)	(970,115)	(407,993)	(10,863)	(453,473)	(194,804)	(242,228)	(7,676)	(829,293)	(307,446
(102,948)	(102,948)	(828,147)	(762,9)	(957,238)	(76,522)	(407,4)	(970,882)	(453,524)	(10,134)	(242,769)	(194,193)	(829,704)	(7,321)	(786,466
(103,426)	(103,426)	(62,95)	(195,288)	(327,654)	(449,226)	(741,549)	(748,475)	(120,272)	(857,499)	(311,498)	(63,506)	(707,422)	(630,721)	(689,164
(103,571)	(103,571)	(195,709)	(62,902)	(449,771)	(327,343)	(748,522)	(741,448)	(857,498)	(120,725)	(63,491)	(311,499)	(630,276)	(707,575)	(606,218
(104,241)	(104,241)	(483,828)	(760,403)	(100,993)	(171,684)	(63,506)	(962,654)	(983,412)	(650,193)	(748,475)	(216,965)	(552,840)	(577,810)	(691,123
(104,756)		(760,594)		(171,313)	(100,4)	(962,343)	(63,491)	(650,804)		(216,32)	(748,522)	(577,187)	(552,157)	(597,586
(107,454)	(107,454)	(110,311)		(896,587)		(941,903)	(408,227)	(243,402)		(827,815)	(639,210)	(438,705)	(365,233)	(822,784
(107,543)	(107,543)	(89,155)	(110,686)	(632,541)	(896,410)	(408,770)	(941,94)	(133,157)	(243,595)	(639,787)	(827,182)	(365,764)	(438,292)	(147,852
(109,485)	(109,485)				(986,125)	(801,238)			(99,982)				(4301232)	(147)032
											(140 313)	(140 014)	(357100)	(3 042)
(109,012)	(100 512)	(12,755) (846,703)					(912,55) (801,750)	(920,987) (90,15)		(273,169) (140,684)	(140,313)	(149,914)	(357,190)	(3,942)
(110 211)		(846,703)	(12,242)	(986,872)	(679,788)	(912,942)	(801,759)	(99,15)	(920,10)	(140,684)	(273,828)	(357,807)	(149,83)	(906,425
(110,311)	(110,311)	(846,703) (598,385)	(12,242) (107,454)	(986,872) (46,280)	(679,788) (479,908)	(912,942) (784,406)	(801,759) (757,447)	(99,15) (902,95)	(920,10) (778,672)	(140,684) (657,242)	(273,828) (644,872)	(357,807)	(149,83) (665,958)	(906,425 (625,476
(110,686)	(110,311)	(846,703) (598,385) (107,543)	(12,242) (107,454) (598,612)	(986,872) (46,280) (479,89)	(679,788) (479,908) (46,717)	(912,942) (784,406) (757,550)	(801,759) (757,447) (784,591)	(99,15) (902,95) (778,325)	(920,10) (778,672) (902,902)	(140,684) (657,242) (644,125)	(273,828) (644,872) (657,755)	(357,807) (27,803) (665,39)	(149,83) (665,958) (27,194)	(906,425 (625,476 (271,721)
(110,686) (111,273)	(110,311) (110,686) (111,273)	(846,703) (598,385) (107,543) (698,850)	(12,242) (107,454) (598,612) (99,982)	(986,872) (46,280) (479,89) (542,247)	(679,788) (479,908) (46,717) (216,965)	(912,942) (784,406) (757,550) (318,744)	(801,759) (757.447) (784,591) (788,449)	(99,15) (902,95) (778,325) (12,755)	(920,10) (778,672) (902,902) (193,294)	(140,684) (657,242) (644,125) (100,993)	(273,828) (644,872) (657,755) (819,596)	(357,807) (27,803) (665,39) (787,228)	(149,83) (665,958) (27,194) (786,531)	(906,425 (625,476 (271,721) (7,676)
(110,686) (111,273) (111,724)	(110,311) (110,686) (111,273) (111,724)	(846,703) (598,385) (107,543) (698,850) (99,15)	(12,242) (107,454) (598,612) (99,982) (698,147)	(986,872) (46,280) (479,89) (542,247) (216,32)	(679,788) (479,908) (46,717) (216,965) (542,750)	(912,942) (784,406) (757,550) (318,744) (788,548)	(801,759) (757,447) (784,591) (788,449) (318,253)	(99,15) (902,95) (778,325) (12,755) (193,703)	(920,10) (778,672) (902,902) (193,294) (12,242)	(140,684) (657,242) (644,125) (100,993) (819,401)	(273,828) (644,872) (657,755) (819,596) (100,4)	(357,807) (27,803) (665,39) (787,228) (786,466)	(149,83) (665,958) (27,194) (786,531) (787,769)	(906,425 (625,476 (271,721) (7,676) (514,174)
(110,686) (111,273) (111,724) (114,3)	(110,311) (110,686) (111,273) (111,724) (114,3)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453)	(357.807) (27,803) (665.39) (787,228) (786,466) (383.77)	(149,83) (665,958) (27,194) (786,531) (787,769) (993,325)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39)
(110,686) (111,273) (111,724) (114,3) (114,994)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247)	(912.942) (784.406) (757.550) (318.744) (788.548) (614.678) (846.703)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672)	(149,83) (665,958) (27,194) (786,531) (787,769) (993,325)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109)	(912.942) (784.406) (757.550) (318.744) (788.548) (614.678) (846,703) (241.828)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242)	(99.15) (902.95) (778.325) (12.755) (193.703) (548.588) (949.584) (160,406)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409) (422,338)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672)	(149,83) (665,958) (27,194) (786,531) (787,769) (993,325)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39)
(110,686) (111,273) (111,724) (114,3) (114,994)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409) (422,338) (160,591)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672)	(149,83) (665,958) (27,194) (786,531) (787,769) (993,325) (383,920)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409) (422,338) (160,591)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (20,952)	(149,83) (665,958) (27,194) (786,531) (787,769) (993,325) (383,920) (641,226) (20,45)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755)	(801,759) (757.447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409) (422,338) (160,591) (103,426)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285)	(357.807) (27,803) (665,39) (787,228) (786,466) (383,77) (993,672) (20,952) (641,771)	(149,83) (665,958) (27,194) (786,531) (787,769) (993,325) (383,920) (641,226) (20,45)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744)	(801,759) (757.447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409) (422,338) (160,591) (103,426) (925,717)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159)	(357.807) (27,803) (665.39) (787.228) (786.466) (383.77) (993.672) (20,952) (641,771) (98,952)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155)	(357.807) (27,803) (665.39) (787,228) (786,466) (383.77) (993.672) (20,952) (641.771) (98,952) (173.522)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45)
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842)	(273,828) (644,872) (657.755) (819.596) (100.4) (839.453) (548.588) (784.406) (128.285) (888.988) (354.159) (137.155) (203.587)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (20.952) (641.771) (98.952) (173.522) (862.35)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713) (125,3)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409) (422,338) (160,591) (103,426) (925,717) (75,205) (139,593) (182,753)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (20,952) (641.771) (98,952) (173.522) (862.35) (674.606)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713) (125,3)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713) (125,3) (125,994)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (843,724) (86,164)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756)	(801,759) (757.447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409) (422,338) (160,591) (103,426) (925,717) (75,205) (139,593) (182,753) (178,553)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (900,338)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804)	(357.807) (27,803) (665.39) (787.228) (786.466) (383.77) (993.672) (20,952) (641.771) (98.952) (173.522) (862.35) (674.606) (606,779)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606,218)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713) (125,3) (125,994)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (843,724) (86,164)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (182,244)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409) (422,338) (160,591) (103,426) (925,717) (75,205) (139,593) (182,753) (178,553)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (900,338)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804)	(357.807) (27,803) (665.39) (787,228) (786,466) (383.77) (993.672) (20,952) (641.771) (98,952) (173.522) (862.35) (674,606) (606,779) (884.309)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606,218)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2) (921,254)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (843,724) (86,164) (274,553) (548,588)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524) (125,3)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (182,244) (192,247)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593) (182.753) (178.553) (70.839) (192.750)	(140.684) (657.242) (644.125) (100.993) (819.401) (548.409) (839.544) (128.712) (784.591) (354.838) (888.9) (203.410) (137.842) (194.193) (900.338) (222.833) (101.49)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (20.952) (641.771) (98.952) (173.522) (862.35) (674.606) (606.779) (884.309) (785.807) (987.2)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606.218) (987.995)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2) (921,254) (820,145) (67,904)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (843,724) (86,164) (274,553) (548,588)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (125,994) (10,134)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (182,244) (192,247) (70,158) (407,4)	(920.10) (778.672) (902.902) (193.294) (12,242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593) (182.753) (178.553) (70.839) (192.750) (518.176)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (900,338) (222,833) (101,49) (119,537)	(273,828) (644,872) (657.755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (20.952) (641.771) (98.952) (173.522) (862.35) (674.606) (606.779) (884.309) (785.807)	(149,83) (665,958) (27,194) (786,531) (787,769) (993,325) (383,920) (641,226) (20,45) (173,475) (98,45) (674,391) (862,962) (884,688) (606,218) (987,995) (785,190) (6,182)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714 (368,60g
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,394) (126,473) (126,524) (128,285) (128,712)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2) (921,254) (820,145) (67,904)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446) (67,93)	(986,872) (46,280) (479,89) (542,247) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444) (181,806) (879,45)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (843,724) (86,164) (274,553) (548,588) (879,952) (181,191)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446) (854,1) (10,863)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (125,994) (10,134)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (182,244) (192,247) (70,158) (407,4) (518,821)	(920,10) (778,672) (902,902) (193,294) (12,242) (949,413) (548,409) (422,338) (160,591) (103,426) (925,717) (75,205) (139,593) (178,553) (70,839) (192,750) (518,176) (407,993)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (900,338) (222,833) (101,49) (119,537) (624,543)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454) (119,460)	(357.807) (27,803) (665.39) (787,228) (786,466) (383.77) (993.672) (20,952) (641.771) (98,952) (173,522) (862,35) (674,606) (606,779) (884,309) (785,807) (987,2) (335,50) (6,815)	(149,83) (665,958) (27,194) (786,531) (787,769) (993,325) (383,920) (641,226) (20,45) (173,475) (98,45) (674,391) (862,962) (884,688) (606,218) (987,995) (785,190) (6,182)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714 (368,60¢ (756,823 (981,284
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94)	(110,311) (110,686) (111,273) (111,724) (1114,3) (114,994) (119,460) (119,537) (120,725) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,712) (131,94)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2) (921,254) (820,145) (67,904) (607,551) (98,952)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446) (67,93)	(986,872) (46,280) (479,89) (542,247) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444) (181,806) (879,45) (286,626)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (843,724) (86,164) (274,553) (548,588) (879,952) (181,191) (981,713)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446) (854,1) (10,863) (318,253)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (125,994) (10,134) (854,996) (188,825)	(99,15) (902,95) (1778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (182,244) (192,247) (70,158) (407,4) (518,821) (252,425)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925,717) (75.205) (139.593) (178.553) (70.839) (192.750) (518.176) (407.993) (84.602)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (900,338) (222,833) (101,49) (119,537) (624,543) (602,956)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454) (119,460) (660,402)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (20.952) (641.771) (98.952) (173.522) (862.35) (674.606) (606.779) (884.309) (785.807) (987.2) (335.50) (6,815) (762.988)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606.218) (987.995) (785.190) (6.182) (335.947) (773.715)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714 (368,60¢ (756,823 (981,284 (181,806
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903)	(110,311) (110,686) (111,273) (111,724) (1114,3) (114,994) (119,460) (119,537) (120,725) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2) (921,254) (820,145) (67,904) (607,551) (98,952) (829,704)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446) (67,93) (829,293) (98,45)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444) (181,806) (879,45) (286,626) (981,284)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (843,724) (86,164) (274,553) (548,588) (879,952) (181,191) (981,713) (286,371)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446) (854,1) (10,863) (318,253) (188,172)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (125,994) (10,134) (854,996) (188,825) (318,744)	(99,15) (902,95) (1778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (182,244) (192,247) (70,158) (407,4) (518,821) (252,425) (84,395)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593) (178.553) (70.839) (192.750) (518.176) (407.993) (84.602) (252.572)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (202,833) (101,49) (119,537) (624,543) (602,956)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454) (119,460) (660,402) (602,41)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (20.952) (641.771) (98.952) (173.522) (862.35) (674.606) (606.779) (884.309) (785.807) (987.2) (335.50) (6.815) (762.988) (773.282)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606.218) (987.995) (785.190) (6.182) (335.947) (773.715) (762.9)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714 (368,609 (756,823 (981,284 (181,806 (310,834
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,994) (126,524) (128,285) (128,285) (128,712) (131,94) (131,903) (133,157)	(110,311) (110,686) (111,273) (111,724) (1114,3) (114,994) (119,460) (119,537) (120,272) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903) (133,157)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2) (921,254) (820,145) (67,904) (607,551) (98,952) (829,704) (140,313)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446) (67,93) (829,293) (98,45) (778,325)	(986,872) (46,280) (479,89) (542,247) (216,32) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444) (181,806) (879,45) (286,626) (981,284) (721,648)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (86,164) (274,553) (548,588) (879,952) (181,191) (981,713) (286,371) (709,756)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446) (854,1) (10,863) (318,253) (188,172) (839,453)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (125,994) (10,134) (854,996) (188,825) (318,744) (223,325)	(99,15) (902,95) (12,755) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (192,247) (70,158) (407,4) (518,821) (252,425) (84,395) (713,772)	(920.10) (778.672) (902.902) (193.294) (12,242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593) (178.553) (70.839) (192.750) (518.176) (407.993) (84,602) (252.572) (107.543)	(140.684) (657.242) (644.125) (100.993) (819.401) (548.409) (839.544) (128.712) (784.591) (354.838) (888.9) (203.410) (137.842) (194.193) (900.338) (222.833) (101.49) (119.537) (624.543) (602.956) (846.294)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454) (119,460) (660,402) (660,41) (334,453)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (20.952) (641.771) (98.952) (173.522) (862.35) (674.606) (606.779) (884.309) (785.807) (987.2) (335.50) (6.815) (762.988) (773.282) (370.820)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606.218) (987.995) (785.190) (6,182) (335.947) (773.715) (762.9) (464.908)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714 (368,600) (756,823 (981,284 (181,806 (310,834 (521,165
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,994) (126,524) (128,285) (128,285) (128,712) (131,94) (131,903) (133,157) (133,840)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903) (133,840)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2) (921,254) (820,145) (67,904) (607,551) (98,952) (829,704) (140,313) (778,672)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446) (67,93) (829,293) (98,45) (778,325) (140,684)	(986,872) (46,280) (479,89) (542,247) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444) (181,806) (879,45) (286,626) (981,284) (709,241)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (86,164) (274,553) (548,588) (879,952) (181,191) (981,713) (286,371) (709,756) (721,349)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446) (854,1) (10,863) (318,253) (188,172) (839,453) (223,672)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (10,134) (854,996) (188,825) (318,744) (223,325) (839,544)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (192,247) (70,158) (407,4) (518,821) (252,425) (84,395) (713,772) (107,454)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593) (178.553) (70.839) (192.750) (518.176) (407.993) (84.602) (252.572) (107.543) (713.225)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (200,338) (222,833) (101,49) (119,537) (624,543) (602,956) (660,595) (846,294) (334,544)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454) (119,460) (660,402) (660,402) (602,41) (334,453) (846,703)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (20.952) (641.771) (98.952) (173.522) (674.606) (606.779) (884.309) (785.807) (987.2) (335.50) (6,815) (762.988) (773.282) (3464.89)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606.218) (987.995) (785.190) (6,182) (335.947) (773.715) (762.9) (464.908) (370.177)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714 (368,60¢ (756,823 (981,284 (181,806 (310,834 (521,165 (37,788)
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,994) (126,524) (128,285) (128,712) (131,94) (131,903) (133,840) (134,321)	(110,311) (110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903) (133,157) (134,321)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2) (921,254) (820,145) (607,551) (98,952) (829,704) (140,313) (778,672) (272,548)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446) (67,93) (829,293) (98,45) (778,325) (140,684) (417,914)	(986,872) (46,280) (479,89) (542,247) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444) (181,806) (879,45) (286,626) (981,284) (709,241) (543,688)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (843,724) (86,164) (274,553) (548,588) (879,952) (181,191) (981,713) (286,371) (709,756) (721,349) (934,548)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446) (854,1) (10,863) (318,253) (188,172) (839,453) (223,672) (484,810)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (10,134) (854,996) (188,825) (318,744) (223,325) (839,544) (748,522)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (192,247) (70,158) (407,4) (518,821) (252,425) (84,395) (713,772) (107,454) (856,676)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593) (178.553) (70.839) (192.750) (518.176) (407.993) (84.602) (252.572) (107.543) (713.225) (295.341)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (900,338) (222,833) (101,49) (119,537) (624,543) (602,956) (660,595) (846,294) (334,544) (962,343)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454) (119,460) (660,402) (602,41) (334,453) (846,703) (489,571)	(357.807) (27,803) (665.39) (787,228) (786,466) (383.77) (993.672) (20,952) (641.771) (98.952) (173.522) (862.35) (674.606) (606.779) (884.309) (785.807) (987,2) (335.50) (6,815) (762.988) (773.282) (370.820) (464.89) (524,715)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606.218) (987.995) (785.190) (6.182) (335.947) (773.715) (762.9) (464.908) (370.177) (433.5)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714 (368,60¢ (756,823 (981,284 (181,806 (310,834 (521,165 (37,788) (398,930
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (121,284) (121,713) (125,3) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903) (133,157) (133,840) (134,676)	(110,311) (110,686) (111,273) (111,724) (1114,3) (1114,994) (119,460) (119,537) (120,725) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903) (133,157) (133,840) (134,321) (134,676)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (948,2) (921,254) (820,145) (67,904) (607,551) (98,952) (829,704) (140,313) (778,672) (272,548) (417,83)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446) (67,93) (829,293) (98,45) (778,325) (140,684) (417,914) (272,449)	(986,872) (46,280) (479,89) (542,247) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444) (181,806) (879,45) (286,626) (981,284) (709,241) (543,688) (934,449)	(679,788) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (843,724) (86,164) (274,553) (548,588) (879,952) (181,191) (981,713) (286,371) (709,756) (721,349) (934,548) (543,309)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446) (854,1) (10,863) (318,253) (188,172) (839,453) (223,672) (484,810) (748,475)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (10,134) (854,996) (188,825) (318,744) (223,325) (839,544) (748,522) (484,187)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (192,247) (70,158) (407,4) (518,821) (252,425) (84,395) (713,772) (107,454) (856,676) (295,656)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593) (178.553) (70.839) (192.750) (518.176) (407.993) (84.602) (252.572) (107.543) (713.225) (295.341) (886.321)	(140.684) (657.242) (644.125) (100.993) (819.401) (548.409) (839.544) (128.712) (784.591) (354.838) (888.9) (203.410) (137.842) (194.193) (900.338) (222.833) (101.49) (119.537) (624.543) (602.956) (660.595) (846.294) (334.544) (962.343) (489.426)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454) (119,460) (660,402) (602,41) (334,453) (846,703) (489,571) (962,654)	(357.807) (27.803) (665.39) (787,228) (786.466) (383.77) (993.672) (20.952) (641.771) (98.952) (173.522) (862.35) (674.606) (606.779) (884.309) (785.807) (987.2) (335.50) (6,815) (762.988) (773.282) (370.820) (464.89) (524.715) (433.992)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606.218) (987.995) (785.190) (6.182) (335.947) (773.715) (762.9) (464.908) (370.177) (433.5) (524,282)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714 (368,609 (756,823 (981,284 (181,806 (310,834 (521,165 (37,788) (398,930 (824,743
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903) (133,157) (133,840) (134,321) (137,155)	(110,311) (110,686) (111,273) (111,724) (1114,3) (1114,994) (119,460) (119,537) (120,725) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903) (133,157) (133,840) (134,676) (137,155)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (921,254) (820,145) (67,904) (607,551) (98,952) (829,704) (140,313) (778,672) (272,548) (417,83) (860,109)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446) (67,93) (829,293) (98,45) (778,325) (140,684) (417,914) (272,449) (282,585)	(986,872) (46,280) (479,89) (542,247) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444) (181,806) (879,45) (286,626) (981,284) (709,241) (543,688) (934,449) (726,51)	(679,788) (479,908) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (86,164) (274,553) (548,588) (879,952) (181,191) (981,713) (286,371) (709,756) (721,349) (934,548) (543,309) (814,785)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446) (854,1) (10,863) (318,253) (188,172) (839,453) (223,672) (484,810) (748,475) (627,806)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (10,134) (854,996) (188,825) (318,744) (223,325) (839,544) (748,522) (484,187) (388,554)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (192,247) (70,158) (407,4) (518,821) (252,425) (84,395) (713,772) (107,454) (856,676) (295,656) (840,712)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593) (178.553) (70.839) (192.750) (518.176) (407.993) (84.602) (252.572) (107.543) (713.225) (295.341) (856.321) (217.319)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (900,338) (222,833) (101,49) (119,537) (624,543) (602,956) (660,595) (846,294) (334,544) (962,343) (489,426) (121,284)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454) (119,460) (660,402) (602,41) (334,453) (846,703) (489,571) (962,654) (582,668)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (641.771) (98.952) (173.522) (862.35) (674.606) (606.779) (884.309) (785.807) (987.2) (335.50) (6.815) (762.988) (773.282) (370.820) (464.89) (524.715) (433.992) (768.510)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884,688) (606.218) (987.995) (785.190) (6.182) (335.947) (773.715) (762.9) (464.908) (370.177) (433.5) (524.282) (691.123)	(906.425 (625.476 (271.721) (7.676) (514.174) (766.39) (350.824 (584.158 (184.756 (862.962 (875.745 (98.45) (966.392 (630.721 (241.828 (589.714 (368.60g (756.823 (981.284 (181.806 (310.834 (521.165 (37.788) (398.930 (824.743 (834.35)
(110,686) (111,273) (111,724) (114,3) (114,994) (119,460) (119,537) (120,272) (121,284) (121,713) (125,3) (125,994) (126,524) (128,712) (131,94) (131,903) (133,157) (133,840) (134,676)	(110,311) (110,686) (111,273) (111,724) (1114,3) (1114,994) (119,460) (119,537) (120,725) (120,725) (121,284) (121,713) (125,3) (125,994) (126,473) (126,524) (128,285) (128,712) (131,94) (131,903) (133,157) (133,840) (134,321) (134,676)	(846,703) (598,385) (107,543) (698,850) (99,15) (801,238) (208,609) (300,670) (726,946) (143,546) (773,282) (181,191) (396,1) (859,32) (921,254) (820,145) (67,904) (607,551) (98,952) (829,704) (140,313) (778,672) (272,548) (417,83) (860,109)	(12,242) (107,454) (598,612) (99,982) (698,147) (208,388) (801,759) (726,51) (300,327) (773,715) (143,451) (396,996) (181,806) (948,995) (859,965) (820,852) (921,743) (607,446) (67,93) (829,293) (98,45) (778,325) (140,684) (417,914) (272,449)	(986,872) (46,280) (479,89) (542,247) (192,750) (101,49) (203,410) (860,888) (395,185) (623,148) (67,93) (784,591) (86,833) (843,273) (548,409) (274,444) (181,806) (879,45) (286,626) (981,284) (709,241) (543,688) (934,449) (726,51)	(679,788) (479,908) (479,908) (46,717) (216,965) (542,750) (101,948) (192,247) (860,109) (203,587) (623,849) (395,812) (784,406) (67,904) (86,164) (274,553) (548,588) (879,952) (181,191) (981,713) (286,371) (709,756) (721,349) (934,548) (543,309) (814,785)	(912,942) (784,406) (757,550) (318,744) (788,548) (614,678) (846,703) (241,828) (657,755) (960,744) (835,41) (139,593) (46,717) (184,756) (126,524) (125,3) (83,446) (854,1) (10,863) (318,253) (188,172) (839,453) (223,672) (484,810) (748,475)	(801,759) (757,447) (784,591) (788,449) (318,253) (846,294) (614,319) (657,242) (241,169) (835,956) (960,253) (46,280) (139,404) (126,473) (184,241) (83,551) (10,134) (854,996) (188,825) (318,744) (223,325) (839,544) (748,522) (484,187) (388,554)	(99,15) (902,95) (778,325) (12,755) (193,703) (548,588) (949,584) (160,406) (422,659) (925,280) (103,571) (139,404) (75,792) (178,444) (192,247) (70,158) (407,4) (518,821) (252,425) (84,395) (713,772) (107,454) (856,676) (295,656) (840,712)	(920.10) (778.672) (902.902) (193.294) (12.242) (949.413) (548.409) (422.338) (160.591) (103.426) (925.717) (75.205) (139.593) (178.553) (70.839) (192.750) (518.176) (407.993) (84.602) (252.572) (107.543) (713.225) (295.341) (886.321)	(140,684) (657,242) (644,125) (100,993) (819,401) (548,409) (839,544) (128,712) (784,591) (354,838) (888,9) (203,410) (137,842) (194,193) (900,338) (222,833) (101,49) (119,537) (624,543) (602,956) (660,595) (846,294) (334,544) (962,343) (489,426) (121,284)	(273,828) (644,872) (657,755) (819,596) (100,4) (839,453) (548,588) (784,406) (128,285) (888,988) (354,159) (137,155) (203,587) (900,659) (194,804) (101,948) (222,164) (624,454) (119,460) (660,402) (602,41) (334,453) (846,703) (489,571) (962,654) (582,668)	(357.807) (27.803) (665.39) (787.228) (786.466) (383.77) (993.672) (641.771) (98.952) (173.522) (862.35) (674.606) (606.779) (884.309) (785.807) (987.2) (335.50) (6.815) (762.988) (773.282) (370.820) (464.89) (524.715) (433.992) (768.510)	(149.83) (665.958) (27.194) (786.531) (787.769) (993.325) (383.920) (641.226) (20.45) (173.475) (98.45) (674.391) (862.962) (884.688) (606.218) (987.995) (785.190) (6.182) (335.947) (773.715) (762.9) (464.908) (370.177) (433.5) (524,282)	(906,425 (625,476 (271,721) (7,676) (514,174) (766,39) (350,824 (584,158 (184,756 (862,962 (875,745 (98,45) (966,392 (630,721 (241,828 (589,714 (368,609 (756,823 (981,284 (181,806 (310,834 (521,165 (37,788) (398,930 (824,743

						Elliptic	Curves ove	er Finite Fi	ielas					
(138,170)	(138,170)	(203,587)	(748,475)	(300,327)	(624,454)	(62,95)	(417,83)	(541,774)	(536,5)	(181,806)	(483,828)	(852,190)	(29,712)	(359,526
(138,827)	(138,827)	(748,522)	(203,410)	(624,543)	(300,670)	(417,914)	(62,902)	(536,992)	(541,223)	(483,169)	(181,191)	(29,285)	(852,807)	(660,595
(139,404)	(139,404)	(926,824)	(290,208)	(419,447)	(562,188)	(121,713)	(443,393)	(473,670)	(121,284)	(627,191)	(840,712)	(689,833)	(219,298)	(707,575
	(139,593)			(562,809)		(443,604)		(121,713)				(219,699)		·
	(140,313)			(83,551)	(910,201)	(274,553)	(927,805)	(295,341)	(89,155)	(109,485)	(780,77)		(859,965)	(162,812
	(140,684)				(83,446)	(927,192)	(274,444)	(89,842)		(780,920)		(859,32)	(539,686)	
(142,337)	(142,337)	(825,257)	(520,10)	(27,194)	(727,504)	(938,134)		(245,345)		(551,292)		(46,717)	(781,170)	(435,791
(142,660)		(520,987)		(727,493)	(27,803)	(862,35)	(938,863)	(681,335)		(232,194)	(551,705)	(781,827)	(46,280)	(960,253
				(271,276)		, ,	(522,163)	(62,902)	(78,827)		(409,884)		(168,511)	
(143,451)	(143,451)	(120,725)	(356,588)	(654,192)	(654,805)	(541,223)								(479,908
(143,546)		(356,409)			(271,721)	(522,834)	(541,774)	(78,170)	(62,95)	(409,113)	(615,165)	(168,486)		(74,809)
(146,50)	(146,50)	(613,796)		(267,386)	(177,197)	(653,485)	(370,177)	(7,676)	(525,624)	(337,126)	(165,163)	(223,672)	(453,473)	(338,612
(146,947)	(146,947)	(901,946)		(177,800)	(267,611)	(370,820)		(525,373)	(7,321)	(165,834)	(337,871)	(453,524)	(223,325)	(193,703
(147,145)	(147,145)	(271,276)	(772,704)	(939,549)	(356,588)	(787,228)	(468,850)	(834,35)	(521,832)			(570,476)		(107,454
(147,852)	(147,852)	(772,293)	(271,721)	,	(939,448)	(468,147)	(787,769)	(521,165)	(834,962)	(490,4)		(788,548)		(217,678
(149,83)	(149,83)	(463,526)		(225,511)	(171,313)	(636,791)	(741,549)	(720,200)		(539,686)	(704,541)	(109,512)	(501,594)	(536,992
(149,914)	(149,914)	(427,496)		(171,684)	(225,486)	(741,448)	(636,206)	(359,526)	(720,797)		(539,311)	(501,403)	(109,485)	(716,744
(153,193)	(153,193)	(392,624)	(541,774)	(422,659)	(787,769)	(356,409)	(482,392)	(362,837)	(203,587)	(75,792)	(552,157)	(216,32)	(478,514)	(842,202
(153,804)	(153,804)	(541,223)	(392,373)	(787,228)	(422,338)	(482,605)	(356,588)	(203,410)	(362,160)	(552,840)	(75,205)	(478,483)	(216,965)	(582,668
(158,249)	(158,249)	(227,295)	(432,648)	(866,792)	(858,165)	(882,665)	(904,771)	(424,789)	(20,952)	(755,301)	(987,995)	(222,833)	(160,406)	(180,665
(158,748)	(158,748)	(432,349)	(227,702)	(858,832)	(866,205)	(904,226)	(882,332)	(20,45)	(424,208)	(987,2)	(755,696)	(160,591)	(222,164)	(303,443
(160,406)	(160,406)	(30,145)	(241,169)	(627,191)	(953,668)	(726,946)	(310,834)	(818,447)	(119,460)	(518,821)	(562,188)	(158,249)	(162,185)	(859,32)
(160,591)	(160,591)	(241,828)	(30,852)	(953,329)	(627,806)	(310,163)	(726,51)	(119,537)	(818,550)	(562,809)	(518,176)	(162,812)	(158,748)	(188,825
(162,185)	(162,185)	(521,832)	(8,292)	(596,504)	(524,715)	(895,587)	(189,806)	(772,704)	(641,226)	(947,341)	(3,55)	(160,406)	(543,688)	(140,684
(162,812)	(162,812)	(8,705)	(521,165)	(524,282)	(596,493)	(189,191)	(895,410)	(641,771)	(772,293)	(3,942)	(947,656)	(543,309)	(160,591)	(319,386
(164,182)	(164,182)	(653,485)	(493,244)	(298,962)	(838,787)	(827,815)	(901,51)	(933,810)	(173,475)	(493,753)	(408,227)	(925,280)	(51,516)	(594,460
(164,815)	(164,815)	(493,753)	(653,512)	(838,210)	(298,35)	(901,946)	(827,182)	(173,522)	(933,187)	(408,770)	(493,244)	(51,481)	(925,717)	(235,485
(165,163)	(165,163)	(54,908)	(636,791)	(549,481)	(668,335)	(757,447)	(463,526)	(826,498)	(824,254)	(146,50)	(511,606)	(769,483)	(56,792)	(856,676
(165,834)	(165,834)	(636,206)	(54,89)	(668,662)	(549,516)	(463,471)	(757,550)	(824,743)	(826,499)	(511,391)	(146,947)	(56,205)	(769,514)	(965,228
(166,319)	(166,319)	(965,228)		(720,200)		(776,218)	(705,654)	(768,510)		(765,115)	(93,588)	(228,515)	(217,319)	(570,476
(166,678)	(166,678)			(650,193)	(720,797)	(705,343)	(776,779)		(768,487)	(93,409)	(765,882)	(217,678)	(228,482)	(54,908)
	(168,486)		(98,952)			(949,584)		(516,947)	(614,319)	(636,791)	(799,521)	(596,504)	-	(396,1)
(168,511)	-	(98,45)	(511,391)	(543,309)	(372,501)	(704,456)		(614,678)	(516,50)		(636,206)		(596,493)	
(171,313)	(171,313)	(819,401)	(188,172)	(149,83)	(104,756)				(335,50)		(698,147)		(407,4)	(30,145)
(171,684)	(171,684)	(188,825)	(819,596)	(104,241)	(149,914)	(829,293)	(345,288)	(335,947)	(166,678)	(698,850)	(398,67)	(407,993)	(679,209)	
(173,475)	(173,475)	(903,126)	(227,295)	(224,327)	(43,273)	(334,544)	(783,152)	(164,182)	(630,721)		(839,544)	(120.272)	(532,508)	(361,188
						(783,845)						, , .		
		(854,996)			(46,280)	(67,93)			(490,993)			(727,493)		
(174,487)				(372,501)			(493,753)					(995,161)		
(174,510)		(901,51)	(854,1)	(46,717)	(372,496)	(493,244)	(67,904)	(490,4)	(497,223)					
(175,471)		(490,993)		(967,197)	(709,241)	(253,546)		(901,946)				(828,147)	(50,652)	(99,15)
	(175,526)	(7,676)	(490,4)			(933,810)	(253,451)	(3,942)	(901,51)		(772,293)		(828,850)	
	(176,249)	(490,4)	(697,282)	(409,113)		(393,293)	(407,4)	(618,16)	(854,1)			(345,709)		
	(176,748)		(490,993)			(407,993)		(854,996)				(506,626)		
(177,197)	(177,197)	(567,688)		(146,50)	(856,321)	(532,489)		(934,449)				(663,748)		
	(177,800)			(856,676)		(337,126)		(36,260)				(334,544)		
	(178,444)							(235,512)	(125,3)			(875,252)		
	(178,553)								(235,485)					
(180,332)	(180,332)	(606,218)	(557,956)	(902,95)	(63,506)	(660,595)	(100,993)	(554,987)	(479,908)	(327,654)	(318,744)	(859,965)	(975,773)	(158,748
(180,665)	(180,665)	(557,41)	(606,779)	(63,491)	(902,902)	(100,4)	(660,402)	(479,89)	(554,10)	(318,253)	(327,343)	(975,224)	(859,32)	(62,95)
(181,191)	(181,191)	(312,157)	(121,284)	(128,712)	(384,938)	(290,789)	(702,345)	(926,824)	(501,403)	(138,827)	(860,109)	(363,413)	(359,526)	(131,903
(181,806)	(181,806)	(121,713)	(312,840)	(384,59)	(128,285)	(702,652)	(290,208)	(501,594)	(926,173)	(860,888)	(138,170)	(359,471)	(363,584)	(852,807
(182,244)	(182,244)	(345,709)	(584,839)	(834,962)	(799,521)	(70,158)	(188,172)	(939,448)	(125,994)	(372,496)	(486,825)	(774,699)	(697,282)	(726,946
(182,753)	(182,753)	(584,158)	(345,288)	(799,476)	(834,35)	(188,825)	(70,839)	(125,3)	(939,549)	(486,172)	(372,501)	(697,715)	(774,298)	(350,173
(184,241)	(184,241)	(335,50)	(526,59)	(307,446)	(452,596)	(125,994)	(252,572)	(188,172)	(737,797)	(756,174)	(573,422)	(995,836)	(607,446)	(119,460
(184,756)	(184,756)	(526,938)	(335,947)	(452,401)	(307,551)	(252,425)	(125,3)	(737,200)	(188,825)	(573,575)	(756,823)	(607,551)	(995,161)	(957,238
(185,227)	(185,227)	(660,595)	(799,476)	(10,134)	(584,158)	(879,952)	(557,956)	(76,522)	(582,668)	(840,712)	(98,45)	(888,9)	(4,699)	(497,774
(185,770)	(185,770)	(799,521)	(660,402)	(584,839)	(10,863)	(557,41)	(879,45)	(582,329)	(76,475)	(98,952)	(840,285)	(4,298)	(888,988)	(203,587
(186,15)	(186,15)	(397,516)	(484,187)	(728,773)	(759,13)	(417,83)	(37,209)	(32,301)	(682,413)	(350,173)	(361,809)	(645,335)	(198,496)	(839,453
(186,982)	(186,982)	(484,810)	(397,481)	(759,984)	(728,224)	(37,788)	(417,914)	(682,584)	(32,696)	(361,188)	(350,824)	(198,501)	(645,662)	(372,496
(188,172)	(188,172)	(171,313)	(55,487)	(427,501)	(483,169)	(182,244)	(131,903)	(736,202)	(184,241)	(26,717)	(624,543)	(303,554)	(319,611)	(160,406
	(188,825)	(55,510)	(171,684)	(483,828)		(131,94)	(182,753)	(184,756)		(624,454)	(26,280)	(319,386)		
	(189,191)		(786,531)		(273,169)	(970,882)	(162,812)		(908,109)					
	(189,806)			(273,828)	(589,283)			(908,888)		(679,788)				
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_			-			Elliptic	Curves ove	er Finite Fi	eias	-	-	-		
(192,247)	(192,247)	(429,984)	(222,164)	(114,994)	(712,982)	(178,444)	(747,483)	(519,482)	(126,473)	(820,145)	(28,992)	(432,349)	(364,872)	(783,152
(192,750)	(192,750)	(222,833)	(429,13)	(712,15)	(114,3)	(747,514)	(178,553)	(126,524)	(519,515)	(28,5)	(820,852)	(364,125)	(432,648)	(59,2)
(193,294)	(193,294)	(93,409)	(519,482)	(281,209)	(418,473)	(725,491)	(788,548)	(111,273)	(429,984)	(546,392)	(965,769)	(200,212)	(468,147)	(146,50)
(193,703)	(193,703)	(519,515)	(93,588)	(418,524)	(281,788)	(788,449)	(725,506)	(429,13)	(111,724)	(965,228)	(546,605)	(468,850)	(200,785)	(506,626
(194,193)	(194,193)	(724,823)	(747,514)	(713,225)	(707,575)	(573,575)	(222,833)	(721,349)	(486,172)	(102,948)	(125,3)	(449,771)	(882,665)	(766,958
(194,804)	(194,804)	(747,483)	(724,174)	(707,422)	(713,772)	(222,164)	(573,422)	(486,825)		(125,994)	(102,49)		(449,226)	
(195,288)	(195,288)		(759,13)	(397,516)	(318,744)	(981,284)	(542,247)	(773,715)	(644,872)	(902,95)	(328,755)	(84,602)	(53,591)	(563,39)
(195,709)	(195,709)	(759,984)		(318,253)	(397,481)	(542,750)	(981,713)	(644,125)	(773,282)	(328,242)	(902,902)	(53,406)	(84,395)	(854,1)
(196,72)	(196,72)	(364,125)	(408,770)	(70,839)	(306,443)	(834,35)	(89,155)	(274,553)	(468,850)	(923,206)	(493,753)	(348,311)	(429,13)	(908,109
(196,925)		(408,227)	(364,872)	(306,554)	(70,158)	(89,842)	(834,962)	(468,147)		(493,244)	(923,791)		(348,686)	
	(198,496)		(771,155)	(367,51)	(20,952)	(558,660)	(232,194)	(866,792)		(761,925)	(862,35)	(186,15)	(203,410)	(888,9)
(198,501)		(771,842)	(29,712)	(20,45)	(367,946)	(232,803)	(558,337)		(866,205)	(862,962)	(761,72)		(186,982)	(616,257
(200,212)	(200,212)	(663,249)		(284,537)	(362,160)	(588,725)	(521,832)	(787,228)		(533,176)	(718,173)	(567,309)	(193,294)	(223,672
				(362,837)	_				_					
					(284,460)	(521,165)	(588,272)	(812,714)	(787,769)	(718,824)	(533,821)		(567,688)	
			(225,486)	(427,496)	(119,460)	(840,285)	(40,925)		(153,804)	(879,45)	(121,284)	(198,496)	(33,95)	(185,227
	(203,587)			(119,537)	(427,501)	(40,72)	(840,712)		(627,806)		(879,952)		(198,501)	
	(205,371)			(50,345)	(939,549)	(465,845)	(594,537)	(799,476)		(282,585)	(516,50)		(967,800)	
	(205,626)		(582,329)	(939,448)	(50,652)	(594,460)		(289,725)		(516,947)	(282,412)		(476,593)	
	(208,388)	(114,3)	(435,206)	(429,13)	(43,724)	(229,479)	(293,764)	(339,233)				(306,443)		(520,987
(208,609)	(208,609)	(435,791)	(114,994)	(43,273)	(429,984)		(229,518)	(281,209)		(314,549)	(459,668)	(547,466)	(306,554)	(416,202
(209,491)	(209,491)	(34,586)	(691,874)	(826,499)	(780,920)	(478,514)	(906,425)	(549,516)	(558,337)	(967,197)	(910,796)	(482,392)	(282,412)	(760,594
(209,506)	(209,506)	(691,123)	(34,411)	(780,77)	(826,498)	(906,572)	(478,483)	(558,660)	(549,481)	(910,201)	(967,800)	(282,585)	(482,605)	(912,55)
(210,301)	(210,301)	(843,724)	(824,743)	(948,995)	(263,750)	(359,526)	(839,453)	(577,187)	(636,206)	(614,678)	(783,845)	(702,345)	(983,585)	(28,5)
(210,696)	(210,696)	(824,254)	(843,273)	(263,247)	(948,2)	(839,544)	(359,471)	(636,791)	(577,810)	(783,152)	(614,319)	(983,412)	(702,652)	(417,914)
(214,489)	(214,489)	(986,125)	(453,473)	(846,294)	(780,77)	(101,948)	(984,737)	(762,988)	(682,584)	(83,551)	(709,756)	(613,796)	(84,602)	(823,479
(214,508)	(214,508)	(453,524)	(986,872)	(780,920)	(846,703)	(984,260)	(101,49)	(682,413)	(762,9)	(709,241)	(83,446)	(84,395)	(613,201)	(908,888
(215,295)	(215,295)	(814,212)	(689,164)	(236,759)	(860,888)	(857,498)	(359,526)	(74,809)	(741,448)	(547,466)	(384,59)	(290,789)	(459,668)	(319,611)
(215,702)	(215,702)	(689,833)	(814,785)	(860,109)	(236,238)	(359,471)	(857,499)	(741,549)	(74,188)	(384,938)	(547,531)	(459,329)	(290,208)	(62,902)
(216,32)	(216,32)	(421,388)	(704,541)	(398,930)	(111,724)	(511,606)	(302,602)	(418,524)	(33,902)	(463,526)	(104,756)	(87,59)	(153,193)	(714,422
(216,965)	(216,965)	(704,456)	(421,609)	(111,273)	(398,67)	(302,395)	(511,391)	(33,95)	(418,473)	(104,241)	(463,471)	(153,804)	(87,938)	(934,449
(217,319)	(217,319)	(718,824)	(984,260)	(403,772)	(746,152)	(618,16)	(453,524)	(137,155)	(407,4)	(75,205)	(663,748)	(166,319)	(370,820)	(147,145)
(217,678)	(217,678)	(984,737)	(718,173)	(746,845)	(403,225)	(453,473)	(618,981)	(407,993)	(137,842)	(663,249)	(75,792)	(370,177)	(166,678)	(746,152
(219,298)	(219,298)	(823,518)	(4,298)	(774,699)	(3,55)	(862,962)	(517,210)	(967,197)	(674,391)	(596,504)	(558,337)	(139,404)	(799,521)	(986,872
(219,699)	(219,699)	(4,699)	(823,479)	(3,942)	(774,298)	(517,787)	(862,35)	(674,606)	(967,800)	(558,660)	(596,493)	(799,476)	(139,593)	(835,41)
(222,164)	(222,164)	(192,247)	(773,282)	(801,759)	(32,696)	(679,788)	(194,804)	(759,984)	(820,852)	(126,524)	(970,115)	(158,748)	(829,704)	(497,223
(222,833)	(222,833)	(773,715)		(32,301)	(801,238)	(194,193)	(679,209)	(820,145)	(759,13)	(970,882)	(126,473)	(829,293)	(158,249)	(975,224
	(223,325)					(133,157)	(78,827)	(541,223)				(146,947)		(200,785
	(223,672)								(541,774)					(723,596
				(908,888)		(34,586)			(589,283)	(37,788)		(395,185)		
	(224,670)			(173,522)	(908,109)	(350,173)	(34,411)	(589,714)		(955,294)	(37,209)		(395,812)	
	(225,486)			(149,914)	(726,51)	(953,329)	(534,784)	(686,313)				(771,155)		
(225,511)		(613,201)							(686,684)	(396,1)	(26,717)		(771,842)	
	(226,109)			(836,572)		(663,249)			(436,981)			(532,508)		
	(226,888)		(266,454)		(836,425)			(436,16)	(271,721)	(618,16)		(809,391)		-
				(906,425)			(497,223)							
	(227,702)										(274,444)	(773,715)	(30,145)	(557,41)
				(101,948)	(906,572)	(497,774)	(780,77)	(53,406)			(933,810)		(773,282)	
				(37,209)	(99,982)	(759,13)			(949,584)					
(228,515)		(235,512)		(99,15)	(37,788)	(516,50)	(759,984)		(679,788)					
				(82,942)	(537,797)	(33,95)		(273,828)			(824,743)		(852,190)	·
(229,518)		(752,656)		(537,200)	(82,55)	(208,609)			(273,169)				(40,72)	(489,571
(232,194)		(447,851)		(354,159)	(553,740)				(457,288)				(40,925)	(464,908
(232,803)	(232,803)	(440,812)	(447,146)	(553,257)	(354,838)	(658,541)			(609,123)			(40,72)	(37,788)	(428,93)
	(235,485)			(831,77)	(639,787)	(519,515)			(923,791)					(56,792)
	(235,512)			(639,210)	(831,920)	(733,403)	(519,482)	(923,206)	(178,444)	(632,456)	(468,850)	(297,660)	(965,228)	(164,182
(236,238)	(236,238)	(987,995)	(252,572)	(215,702)	(888,9)	(335,50)	(61,385)	(829,704)	(404,227)	(432,648)	(623,148)	(820,852)	(10,134)	(694,874
(236,759)	(236,759)	(252,425)	(987,2)	(888,988)	(215,295)	(61,612)	(335,947)	(404,770)	(829,293)	(623,849)	(432,349)	(10,863)	(820,145)	(367,946
(241,169)	(241,169)	(160,406)	(471,201)	(686,313)	(840,712)	(119,537)	(368,388)	(242,769)	(726,51)	(419,447)	(10,134)	(432,648)	(8,292)	(125,3)
(241,828)	(241,828)	(471,796)	(160,591)	(840,285)	(686,684)	(368,609)	(119,460)	(726,946)	(242,228)	(10,863)	(419,550)	(8,705)	(432,349)	(55,510)
(242,228)	(242,228)	(974,260)	(818,550)	(482,605)	(80,373)	(59,2)	(422,338)	(241,828)	(56,792)	(102,49)	(555,295)	(826,498)	(785,807)	(966,605
(242,769)	(242,769)	(818,447)	(974,737)	(80,624)	(482,392)	(422,659)	(59,995)	(56,205)	(241,169)	(555,702)	(102,948)	(785,190)	(826,499)	(178,444
(243,402)	(243,402)	(902,95)	(943,176)	(350,173)	(557,956)	(10,134)		(970,882)	(107,454)	(368,388)	(759,13)	(61,385)	(6,815)	(101,948
(243,595)			(902,902)	(557,41)			(10,863)	(107,543)	(970,115)	(759,984)		(6,182)	(61,612)	(834,962
				<u> </u>	<u> </u>			- 101			<u> </u>			
•	I control			1	1	1	1		1		1	1	1	1

					_	Elliptic	Curves ove	er Finite Fi	eias	_	_		_	_
(244,67)	(244,67)	(645,335)	(781,170)	(632,456)	(808,820)	(433,992)	(940,981)	(328,755)	(959,849)	(644,872)	(831,920)	(825,257)	(484,187)	(49,134)
(244,930)	(244,930)	(781,827)	(645,662)	(808,177)	(632,541)	(940,16)	(433.5)	(959,148)	(328,242)	(831,77)	(644,125)	(484,810)	(825,740)	(259,882
(245,345)		(355,67)	(393,704)		(348,311)	(697,715)	(765,882)	(785,807)		(705,343)		(56,792)	(70,839)	(821,453
	(245,652)	(393,293)				(765,115)			(785,190)				(56,205)	(297,660
		(577,810)	(27,803)			(712,15)	(842,795)	(843,273)	(831,77)		(959,148)			-
(249,743)		(27,194)	(577,187)	(178,444)	(520,10)	(842,202)	(712,982)				(601,546)			(43,273)
(250,482)	(250,482)	(6,182)	(766,39)	(975,224)	(517,787)	(59,995)	(3,942)	(665,39)	(933,810)	(53,406)	(189,191)	(607,446)	(902,902)	(747,483
(250,515)	(250,515)	(766,958)	(6,815)	(517,210)	(975,773)	(3,55)	(59,2)	(933,187)	(665,958)	(189,806)	(53,591)	(902,95)	(607,551)	(801,759
(251,489)	(251,489)	(933,810)	(393,293)	(366,411)	(37,209)	(728,773)	(490,4)	(766,39)	(493,244)	(173,522)	(468,147)	(546,392)	(354,159)	(721,648
(251,508)	(251,508)	(393,704)	(933,187)	(37,788)	(366,586)	(490,993)	(728,224)	(493,753)	(766,958)	(468,850)	(173,475)	(354,838)	(546,605)	(949,584
(252,425)	(252,425)	(733,594)	(236,759)	(615,165)	(814,212)	(725,506)	(184,756)	(533,176)	(131,94)	(271,721)	(812,283)	(716,253)	(922,903)	(501,594
(252,572)	(252,572)	(236,238)	(733,403)	(814,785)	(615,832)	(184,241)	(725,491)	(131,903)	(533,821)	(812,714)	(271,276)	(922,94)	(716,744)	(657,242
(253,451)	(253,451)	(365,233)		(412,148)	(765,115)	(175,526)	(348,686)		(539,686)		(720,200)	(89,842)	(841,349)	(266,543
(253,546)	(253,546)				(412,849)	(348,311)	(175,471)			(720,797)	(942,479)	(841,648)	(89,155)	(809,606
														
(254,146)	(254,146)	(453,473)		(825,257)	(259,882)	(51,516)	(718,173)			(588,725)	(409,113)	(901,51)	(808,820)	
(254,851)		(727,493)	(453,524)	(259,115)	(825,740)	(718,824)	(51,481)		(828,147)		(588,272)			-
(257,160)	(257,160)	(723,401)	(615,165)	(176,249)	(733,594)	(831,77)	(552,157)	(842,795)	(502,904)	(356,409)	(433,5)	(962,343)	(744,996)	(362,160
(257,837)	(257,837)	(615,832)	(723,596)	(733,403)	(176,748)	(552,840)	(831,920)	(502,93)	(842,202)	(433,992)	(356,588)	(744,1)	(962,654)	(388,554
(259,115)	(259,115)	(654,805)	(334,544)	(356,588)	(254,851)	(422,338)	(903,126)	(657,242)	(473,670)	(176,748)	(778,672)	(522,834)	(729,412)	(244,67)
(259,882)	(259,882)	(334,453)	(654,192)	(254,146)	(356,409)	(903,871)	(422,659)	(473,327)	(657,755)	(778,325)	(176,249)	(729,585)	(522,163)	(533,176
(263,247)	(263,247)	(665,39)	(754,126)	(368,609)	(210,696)	(955,703)	(686,684)	(534,213)	(766,39)	(350,824)	(900,338)	(604,511)	(598,612)	(486,825
(263,750)	(263,750)	(754,871)	(665,958)	(210,301)	(368,388)	(686,313)	(955,294)	(766,958)	(534,784)	(900,659)	(350,173)	(598,385)	(604,486)	(548,409
	(266,454)			(925,280)		(551,705)	(289,272)	(465,845)			(404,770)	(411,611)	(838,787)	
				(284,460)	(925,717)	(289,725)	(551,292)			(404,227)	(938,134)	(838,210)	(411,386)	(440,185
														
(267,386)		(463,471)		(89,155)	(146,50)	(306,443)	(54,89)	(910,201)			(549,481)		(293,764)	(776,218
(267,611)		(896,587)		(146,947)	(89,842)	(54,908)	(306,554)	(416,795)		(549,516)	(421,388)	(293,233)	(412,148)	(281,788
(271,276)	(271,276)	(623,148)	(147,145)	(433,992)	(143,451)	(573,422)	(808,820)	(602,41)	(226,109)	(252,572)	(176,748)	(51,516)	(543,309)	(110,311)
(271,721)	(271,721)	(147,852)	(623,849)	(143,546)	(433,5)	(808,177)	(573,575)	(226,888)	(602,956)	(176,249)	(252,425)	(543,688)	(51,481)	(718,173
(272,449)	(272,449)	(134,676)	(516,947)	(967,800)	(788,449)	(542,247)	(418,524)	(774,298)	(511,606)	(826,498)	(338,612)	(939,549)	(555,295)	(296,851
(272,548)	(272,548)	(516,50)	(134,321)	(788,548)	(967,197)	(418,473)	(542,750)	(511,391)	(774,699)	(338,385)	(826,499)	(555,702)	(939,448)	(337,871
(273,169)	(273,169)	(604,511)	(87,938)	(189,191)	(431,83)	(339,764)	(596,493)	(229,518)	(980,785)	(517,787)	(109,485)	(704,456)	(754,126)	(937,838
(273,828)	(273,828)	(87,59)	(604,486)	(431,914)	(189,806)	(596,504)	(339,233)	(980,212)	(229,479)	(109,512)	(517,210)	(754,871)	(704,541)	(563,958
(274,444)	(274,444)	(839,544)	(987,995)	(563,958)	(126,524)	(140,684)	(843,273)	(196,925)	(712,15)	(227,295)	(801,759)	(921,254)	(956,223)	(397,481
(274,553)	(274,553)	(987,2)	(839,453)	(126,473)	(563,39)	(843,724)	(140,313)	(712,982)	(196,72)	(801,238)	(227,702)	(956,774)	(921,743)	(189,191
(281,209)	(281,209)	(821,453)		(838,787)	(193,294)	(644,872)	(511,606)	(542,247)	(208,609)	(757,447)	(940,981)		(919,32)	(267,386
_				(193,703)			_							,
	(282,412)								(417,914)					
	-												(284,537)	
				(567,688)		(536,5)	(682,413)		(984,260)					, ,
	(283,208)					(392,624)	(395,185)	(440,185)	(953,668)				(34,586)	(27,194)
(283,789)	(283,789)	(482,605)	(457,709)	(960,253)	(818,550)	(395,812)	(392,373)	(953,329)	(440,812)	(355,67)	(658,456)	(34,411)	(625,476)	(465,845
(284,460)	(284,460)	(768,510)	(836,572)	(200,785)	(266,543)	(708,113)	(671,504)	(547,531)	(736,202)	(74,188)	(476,404)	(281,788)	(282,585)	(409,884
(284,537)	(284,537)	(836,425)	(768,487)	(266,454)	(200,212)	(671,493)	(708,884)	(736,795)	(547,466)	(476,593)	(74,809)	(282,412)	(281,209)	(412,849
(286,371)	(286,371)	(63,491)	(502,93)	(131,903)	(606,779)	(483,169)	(302,395)	(405,426)	(615,832)	(477,604)	(62,902)	(344,988)	(86,833)	(327,654
(286,626)	(286,626)	(502,904)	(63,506)	(606,218)	(131,94)	(302,602)	(483,828)	(615,165)	(405,571)	(62,95)	(477,393)	(86,164)	(344,9)	(384,59)
(289,272)	(289,272)	(663,748)	(616,257)	(927,192)	(708,884)	(266,454)	(83,446)	(205,371)	(77,393)	(984,260)	(947,341)	(593,714)	(729,585)	(175,471)
	(289,725)				(927,805)	(83,551)	(266,543)		(205,626)				(593,283)	
	(290,208)				(10,134)	(181,806)			(396,996)			(215,702)	(4,298)	(614,678
														·
	(290,789)			(10,863)	(611,602)	(350,824)		(396,1)			(686,684)		(215,295)	(188,172
(291,224)		(758,994)		(933,810)	(542,247)		(967,800)		(838,787)					
(291,773)	(291,773)	(37,788)	(758,3)	(542,750)	(933,187)	(967,197)	(397,481)	(838,210)	(517,210)	(980,212)	(906,425)	(447,146)	(465,152)	(625,521
(293,233)	(293,233)	(825,740)	(846,703)	(453,524)	(389,836)	(746,152)	(208,609)	(644,872)	(76,522)	(778,672)	(959,849)	(645,662)	(267,611)	(919,965
(293,764)	(293,764)	(846,294)	(825,257)	(389,161)	(453,473)	(208,388)	(746,845)	(76,475)	(644,125)	(959,148)	(778,325)	(267,386)	(645,335)	(618,16)
(295,341)	(295,341)	(774,699)	(713,772)	(747,483)	(4,298)	(712,982)	(835,41)	(134,321)	(140,313)	(920,987)	(937,838)	(611,395)	(584,839)	(641,771
(295,656)	(295,656)	(713,225)	(774,298)	(4,699)	(747,514)	(835,956)	(712,15)	(140,684)	(134,676)	(937,159)	(920,10)	(584,158)	(611,602)	(517,210)
(296,146)	(296,146)	(412,849)	(824,254)	(365,764)	(927,192)	(744,996)	(910,796)	(54,908)	(761,72)	(478,514)	(752,656)	(552,157)	(896,410)	(272,548
	(296,851)	(824,743)		(927,805)		(910,201)	(744,1)	(761,925)	(54,89)		(478,483)			
		(553,740)		(440,185)		(895,410)			(960,744)					
	(297,660)			(551,292)	(440,812)	(925,717)			(875,252)					
(298,35)	(298,35)		(306,554)		(408,227)	(896,587)			(955,703)			(435,791)	(744,1)	(639,787
(298,962)	(298,962)			(408,770)		(534,784)	(896,410)	(955,294)		(822,784)	(298,35)		(435,206)	(781,827
(300,327)	(300,327)	(119,537)	(758,994)	(794,49)	(138,170)	(694,123)	(471,201)	(94,402)	(30,852)	(384,59)	(607,446)	(756,174)	(53,406)	(335,947
(300,670)	(300,670)	(758,3)	(119,460)	(138,827)	(794,948)	(471,796)	(694,874)	(30,145)	(94,595)	(607,551)	(384,938)	(53,591)	(756,823)	(477,604

						Empue	Curves ove	r riiile ri	eius					
(302,395)	(302,395)	(477,393)	(625,476)	(318,744)	(785,807)	(286,371)	(216,965)	(993,672)	(612,779)	(63,506)	(383,77)	(482,605)	(548,409)	(758,994
(302,602)	(302,602)	(625,521)	(477,604)	(785,190)	(318,253)	(216,32)	(286,626)	(612,218)	(993,325)	(383,920)	(63,491)	(548,588)	(482,392)	(598,612
(303,443)	(303,443)	(835,956)	(679,209)	(517,787)	(12,755)	(773,715)	(774,298)	(995,161)	(542,247)	(323,172)	(431,83)	(188,825)	(497,223)	(4,298)
	(303,554)			(12,242)	(517,210)	(774,699)	(773,282)		(995,836)		(323,825)		(188,172)	
	(306,443)	(383,77)	(298,962)		(653,485)	(40,925)	(267,386)	(563,39)		(625,476)	(49,134)		(208,388)	
		(298,35)	(383,920)	(653,512)	(196,925)	(267,611)	(40,72)	(919,32)	(563,958)					(644,125
(307,446)	(307,446)	(359,471)		(627,806)		(843,273)	(814,785)						(312,840)	
(307,551)	(307,551)	(593,714)	(359,526)	(184,756)	(627,191)	(814,212)	(843,724)	(842,202)	(427,496)	(966,392)	(419,447)	(312,157)	(616,257)	(102,948
(310,163)	(310,163)	(368,609)	(321,745)	(327,343)	(754,126)	(755,301)	(160,591)	(657,755)	(703,838)	(902,902)	(904,771)	(189,191)	(904,226)	(131,94)
(310,834)	(310,834)	(321,252)	(368,388)	(754,871)	(327,654)	(160,406)	(755,696)	(703,159)	(657,242)	(904,226)	(902,95)	(904,771)	(189,806)	(921,254
(311,498)	(311,498)	(702,652)	(902,95)	(609,123)	(606,218)	(956,223)	(312,840)	(354,838)	(598,385)	(321,252)	(103,426)	(843,273)	(766,958)	(993,672
(311,499)	(311,499)	(902,902)	(702,345)	(606,779)	(609,874)	(312,157)	(956,774)	(598,612)	(354,159)	(103,571)	(321,745)	(766,39)	(843,724)	(449,226
(312,157)	(312,157)	(378,160)	(181,191)	(607,551)	(866,792)	(489,571)	(311,499)	(714,422)	(367,51)	(748,522)	(794,948)	(975,773)	(307,551)	(829,704
(312,840)	(312,840)	(181,806)	(378,837)	(866,205)	(607.446)	(311,498)	(489,426)	(367,946)	(714,575)	(794,49)	(748,475)	(307,446)	(975,224)	(33,95)
(314,448)	(314,448)	(839,453)	(744,1)	(922,94)	(366,411)	(824,743)	(778,325)	(344,988)		(208,388)		(49,134)	(615,832)	(413,805
(314,549)		(744,996)		(366,586)			(824,254)	(757,447)	(344,9)		(208,609)		(49,863)	(484,810
						, ,								
(318,253)	(318,253)	(923,791)		(302,602)		(111,724)	(131,94)	(725,506)			(180,665)	(28,992)	(724,823)	(702,652
(318,744)		(449,226)				(131,903)	(111,273)	(877,884)	, 0.10	(180,332)	(364,125)	(724,174)	(28,5)	(755,696
(319,386)	(319,386)	(604,486)	(407,993)	(452,596)	(367,51)	(762,988)	(697,715)	(607,551)	(984,737)	(77,604)	(94,595)	(665,958)	(188,825)	(215,702
(319,611)	(319,611)	(407,4)	(604,511)	(367,946)	(452,401)	(697,282)	(762,9)	(984,260)	(607,446)	(94,402)	(77,393)	(188,172)	(665,39)	(162,185
(321,252)	(321,252)	(932,332)	(310,834)	(681,662)	(694,123)	(30,145)	(794,49)	(727,504)	(694,874)	(875,252)	(311,498)	(497,223)	(786,466)	(888,988
(321,745)	(321,745)	(310,163)	(932,665)	(694,874)	(681,335)	(794,948)	(30,852)	(694,123)	(727,493)	(311,499)	(875,745)	(786,531)	(497,774)	(829,293
(322,244)	(322,244)	(476,593)	(429,984)	(435,791)	(404,770)	(438,705)	(912,942)	(93,409)	(888,988)	(925,280)	(768,487)	(582,329)	(408,227)	(478,514
(322,753)	(322,753)	(429,13)	(476,404)	(404,227)	(435,206)	(912,55)	(438,292)	(888,9)	(93,588)	(768,510)	(925,717)	(408,770)	(582,668)	(727,493
(323,172)	(323,172)	(367,946)	(189,191)	(29,712)	(604,511)	(610,161)	(8,705)	(36,737)	(378,837)	(6,182)	(303,443)	(624,454)	(368,609)	(738,803
(323,825)		(189,806)	(367,51)	(604,486)	(29,285)	(8,292)	(610,836)	(378,160)	(36,260)	(303,554)	(6,815)		(624,543)	
(327,343)	(327,343)	(397,481)	(694,874)	(103,571)	(310,163)	(758,3)	(953,329)	(932,332)					(357,807)	
														(987,2)
(327,654)	(327,654)	(694,123)	(397,516)	(310,834)	(103,426)	(953,668)		(395,185)					(589,283)	
(328,242)	(328,242)	(70,158)	(63,491)	(364,872)	(557,41)	(760,594)		(244,930)			(195,709)	(712,982)	(355,930)	(657,755
(328,755)	(328,755)	(63,506)	(70,839)	(557,956)	(364,125)	(584,158)	(760,403)	(921,254)	(244,67)		(625,476)	(355,67)	(712,15)	(906,572
(334,453)	(334,453)	(780,77)	(259,882)	(453,473)	(34,411)	(173,522)	(403,225)	(957,759)	(827,182)	(133,157)	(490,4)	(177,197)	(960,253)	(737,797
(334,544)	(334,544)	(259,115)	(780,920)	(34,586)	(453,524)	(403,772)	(173,475)	(827,815)	(957,238)	(490,993)	(133,840)	(960,744)	(177,800)	(781,170
(335,50)	(335,50)	(884,688)	(184,241)	(359,471)	(983,585)	(948,2)	(236,238)	(171,313)	(947,656)	(641,771)	(77,604)	(948,995)	(128,285)	(300,670
(335,947)	(335,947)	(184,756)	(884,309)	(983,412)	(359,526)	(236,759)	(948,995)	(947,341)	(171,684)	(77,393)	(641,226)	(128,712)	(948,2)	(937,159
(337,126)	(337,126)	(398,67)	(806,984)	(421,609)	(370,820)	(424,208)	(177,800)	(882,332)	(545,553)	(819,596)	(146,50)	(403,772)	(721,648)	(272,449
(337,871)	(337,871)	(806,13)	(398,930)	(370,177)	(421,388)	(177,197)	(424,789)	(545,444)	(882,665)	(146,947)	(819,401)	(721,349)	(403,225)	(546,605
(338,385)	(338,385)	(205,371)	(962,343)	(668,335)	(776,779)	(650,193)	(760,594)	(962,654)	(616,257)	(856,321)	(272,548)	(842,202)	(723,401)	(146,947
				(776,218)										
	(339,233)			(921,743)	(970,115)	(273,828)			(208,388)				(477,604)	_
	(339,764)				(921,254)	(76,522)		(208,609)		(344,9)			(563,958)	
	(343,158)	(6,815)	(718,824)	(94,595)	(862,35)	(3,942)		(794,948)		(367,51)	(895,410)		(67,93)	(623,148
	(343,839)	(718,173)	(6,182)	(862,962)		(727,504)	(3,55)	(253,546)			(367,946)		(943,821)	
(344,9)	(344,9)	(395,185)		(59,995)	(773,715)	(482,392)		(314,549)					(906,425)	
(344,988)	(344,988)				(59,2)	(517,210)							(286,371)	
(345,288)	(345,288)	(182,753)	(668,662)	(962,654)	(636,206)	(171,684)	(382,593)	(948,995)	(776,779)	(543,309)	(729,412)	(176,748)	(947,656)	(416,795
(345,709)	(345,709)	(668,335)	(182,244)	(636,791)	(962,343)	(382,404)	(171,313)	(776,218)	(948,2)	(729,585)	(543,688)	(947,341)	(176,249)	(567,309
(348,311)	(348,311)	(828,850)	(506,371)	(245,345)	(658,456)	(354,159)	(253,546)	(956,774)	(727,504)	(960,253)	(570,521)	(490,4)	(196,72)	(93,409)
(348,686)	(348,686)	(506,626)	(828,147)	(658,541)	(245,652)	(253,451)	(354,838)	(727,493)	(956,223)	(570,476)	(960,744)	(196,925)	(490,993)	(551,292
(350,173)	(350,173)	(443,393)	(416,795)	(783,845)	(243,402)	(290,208)	(224,670)	(630,721)	(896,587)	(263,750)	(186,15)	(857,499)	(761,925)	(114,3)
(350,824)	(350,824)	(416,202)	(443,604)	(243,595)	(783,152)	(224,327)	(290,789)	(896,410)	(630,276)	(186,982)	(263,247)	(761,72)	(857,498)	(182,244
	(354,159)				(232,194)	(367,51)	(348,311)		(570,476)			(251,489)	(834,35)	(61,385)
	(354,838)			(232,803)			(367,946)						(251,508)	
		(76,475)				(554,10)		(660,402)			(283,789)			
(355,67)	(355,67)													(536,5)
	(355,930)			(828,147)	(464,89)	(661,531)	(554,987)		(660,595)				(709,241)	(553,257
	(356,409)	(34,411)		(259,882)	, ,	(919,32)	(153,193)	(555,295)	(40,72)	(56,792)		(511,606)	, ,	
	(356,588)		(34,586)	(147,145)	(259,115)		(919,965)	(40,925)		(257,837)	(56,205)	(457,288)		(632,456
(357,190)	(357,190)	(900,338)	(405,571)	(904,771)	(707,422)	(858,165)	(436,16)	(502,904)	(413,805)	(754,126)	(859,965)	(109,485)	(327,654)	(562,809
(357,807)	(357,807)	(405,426)	(900,659)	(707,575)	(904,226)	(436,981)	(858,832)	(413,192)	(502,93)	(859,32)	(754,871)	(327,343)	(109,512)	(344.9)
(359,471)	(359,471)	(674,606)	(307,446)	(686,684)	(335,50)	(210,696)	(215,702)	(149,83)	(823,479)	(611,602)	(852,190)	(920,10)	(181,806)	(138,827
(359,526)	(359,526)	(307,551)	(674,391)	(335,947)	(686,313)	(215,295)	(210,301)	(823,518)	(149,914)	(852,807)	(611,395)	(181,191)	(920,987)	(762,9)
(361,188)	(361,188)	(940,981)	(557,41)	(70,158)	(943,821)	(781,170)	(799,521)	(594,460)	(548,588)	(949,584)	(186,982)	(862,962)	(612,218)	(534,213
	(361,809)		(940,16)	(943,176)	(70,839)	(799,476)	(781,827)	(548,409)		(186,15)	(949,413)	(612,779)	(862,35)	(173,522
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						Elliptic	Curves ove	er Finite Fi	eias					
(362,160)	(362,160)	(223,325)	(771,842)	(200,212)	(75,792)	(778,325)	(555,702)	(153,804)	(784,591)	(746,845)	(422,659)	(613,201)	(418,473)	(663,748
(362,837)	(362,837)	(771,155)	(223,672)	(75,205)	(200,785)	(555,295)	(778,672)	(784,406)	(153,193)	(422,338)	(746,152)	(418,524)	(613,796)	(257,837
(363,413)	(363,413)	(975,773)	(862,35)	(6,815)	(712,15)	(4,699)	(520,987)	(563,958)	(545,444)	(29,285)	(892,713)	(557,956)	(181,191)	(773,282
(363,584)	(363,584)	(862,962)	(975,224)	(712,982)	(6,182)	(520,10)	(4,298)	(545,553)	(563,39)	(892,284)	(29,712)	(181,806)	(557,41)	(229,518
(364,125)	(364,125)	(829,293)	(196,72)	(328,755)	(383,77)	(602,41)	(819,596)	(987,2)	(808,820)	(318,744)	(424,208)	(828,850)	(192,750)	(378,837
(364,872)	(364,872)	(196,925)	(829,704)	(383,920)	(328,242)	(819,401)	(602,956)	(808,177)	(987,995)	(424,789)	(318,253)	(192,247)	(828,147)	(932,332
(365,233)		(665,958)		(296,851)	(545,444)	(7,676)	(506,626)	(6,815)	(370,177)	(36,260)	(878,772)	(107,454)	(407,993)	_
(365,764)			(665,39)	(545,553)	(296,146)	(506,371)	(7,321)	(370,820)	(6,182)	(878,225)	(36,737)	(407.4)	(107,543)	(788,548
(366,411)		(955,294)		(314,448)	(251,489)	(665,958)	(56,792)	(59,2)	(49,863)	(43,724)	(919,32)	(757,447)	(697,715)	(959,148
	(366,586)			(251,508)	(314,549)	(56,205)	(665,39)	(49,134)	(59,995)	(919,965)	(43,273)	(697,282)	(757,550)	(519,482
(367,51)	(367,51)	(323,825)	(501,403)		(198,496)	(937,838)	(354,159)	(312,157)	(942,518)	(835,41)	(343,158)	(728,773)	(427,496)	(236,238
	(367,946)		(323,172)	(198,501)	(319,611)	(354,838)	(937,159)	(942,479)	(312,840)		(835,956)		(728,224)	(596,504
	(368,388)		(728,773)	(263,750)	(397,516)	(241,169)	(933,810)	(59,995)	(827,815)	(497,774)	(243,402)	(875,745)	(323,825)	(126,473
												, ,		
	(368,609)		(310,163)	(397,481)	(263,247)	(933,187)	(241,828)	(827,182)	(59,2)	(243,595)	(497,223)	(323,172)	(875,252)	(98,952)
(370,177)		(549,516)		(54,89)	(337,871)	(146,50)	(514,174)	(365,233)			(463,526)		(217,678)	(650,804
	(370,820)	(539,311)		(337,126)	(54,908)	(514,823)	(146,947)		(365,764)		(177,197)	(217,319)	(133,157)	(788,449
	(372,496)			(174,510)	(168,486)	(822,213)	(26,717)		(900,338)		(182,244)	(616,257)	(654,192)	(941,94)
(372,501)		(502,93)	(729,412)	(168,511)	(174,487)	(26,280)	(822,784)		(723,596)			(654,805)		(186,15)
(378,160)		_		(100,4)	(906,425)	(826,499)	(902,902)	(757,550)		(542,750)	(755,301)	(59,995)	(593,714)	(364,872
(378,837)	(378,837)	(312,840)	(908,109)	(906,572)	(100,993)	(902,95)	(826,498)	(323,172)	(757,447)	(755,696)	(542,247)	(593,283)	(59,2)	(986,125
(382,404)	(382,404)	(546,392)	(70,158)	(408,227)	(940,981)	(632,456)	(345,709)	(980,785)	(820,145)	(838,787)	(519,482)	(404,770)	(393,293)	(806,984
(382,593)	(382,593)	(70,839)	(546,605)	(940,16)	(408,770)	(345,288)	(632,541)	(820,852)	(980,212)	(519,515)	(838,210)	(393,704)	(404,227)	(919,32)
(383,77)	(383,77)	(741,448)	(306,443)	(364,125)	(597,411)	(62,902)	(463,471)	(689,164)	(522,163)	(302,395)	(514,823)	(473,327)	(114,3)	(100,993
(383,920)	(383,920)	(306,554)	(741,549)	(597,586)	(364,872)	(463,526)	(62,95)	(522,834)	(689,833)	(514,174)	(302,602)	(114,994)	(473,670)	(857,498
(384,59)	(384,59)	(784,591)	(866,205)	(432,349)	(181,806)	(598,612)	(611,395)	(771,842)	(956,774)	(215,295)	(300,327)	(686,684)	(712,982)	(77.393)
(384,938)	(384,938)	(866,792)	(784,406)	(181,191)	(432,648)	(611,602)	(598,385)	(956,223)	(771,155)	(300,670)	(215,702)	(712,15)	(686,313)	(286,371
(388,443)	(388,443)	(682,584)	(932,332)	(644,125)	(827,182)	(838,210)	(137,842)	(453,473)	(397,481)	(632,541)	(46,717)	(525,624)	(551,292)	(257,160
(388,554)	(388,554)	(932,665)	(682,413)	(827,815)	(644,872)	(137,155)	(838,787)	(397,516)	(453,524)	(46,280)	(632,456)	(551,705)	(525,373)	(196,72)
(389,161)	(389,161)	(178,553)	(438,292)	(27,803)	(293,764)	(429,13)	(533,176)	(859,965)	(725,506)	(413,805)	(588,725)	(89,155)	(479,908)	(818,550
(389,836)	(389,836)	(438,705)	(178,444)	(293,233)	(27,194)	(533,821)	(429,984)	(725,491)	(859,32)	(588,272)	(413,192)	(479,89)	(89,842)	(903,126
(392,373)	(392,373)	(153,804)	(478,514)	(720,797)	(403,772)	(283,789)	(34,586)	(225,486)	(771,842)	(661,466)	(412,849)	(392,624)	(421,609)	(205,371
(392,624)	(392,624)	(478,483)	(153,193)	(403,225)	(720,200)	(34,411)	(283,208)	(771,155)	(225,511)	(412,148)	(661,531)	(421,388)	(392,373)	(476,404
(393,293)	(393,293)	(251,489)	(245,652)	(506,626)	(831,77)	(545,444)	(176,249)	(520,987)	(424,789)	(903,871)	(808,177)	(382,404)	(409,884)	(588,725
(393,704)	(393,704)	(245,345)	(251,508)	(831,920)	(506,371)	(176,748)	(545,553)	(424,208)	(520,10)	(808,820)	(903,126)	(409,113)	(382,593)	(281,209
(395,185)	(395,185)	(654,192)	(344,9)	(703,159)	(120,272)	(283,208)	(761,72)	(744,996)	(327,654)	(232,803)	(554,987)	(502,904)	(224,327)	(638,213
(395,812)	(395,812)	(344,988)	(654,805)	(120,725)	(703,838)	(761,925)	(283,789)	(327,343)	(744,1)	(554,10)	(232,194)	(224,670)	(502,93)	(405,571
(396,1)	(396,1)	(54,89)	(121,713)			(896,410)		(412,148)		(282,412)		(910,796)		(736,202
	(396,996)				(941,903)		(896,587)				(282,585)		(910,201)	
(397,481)		(186,982)				(291,773)					(443,604)		(405,426)	
			(186,15)	(368,388)		(840,712)		(344,9)			(557,956)		(29,285)	(274,553
(398,67)	(398,67)	(26,280)		(216,965)	(539,311)	(785,807)			(765,882)					(134,676
	(398,930)		(26,717)	(539,686)			(785,190)			(613,201)		(83,446)	(422,659)	<u> </u>
		(942,518)		(217,678)	(392,624)	(334,453)			(726,946)				(720,797)	
	(403,772)			(392,373)	(217,319)		(334,544)		(501,594)					
				(74,188)	(322,753)	(947,656)							(941,903)	
	(404,770)				(74,809)			(96,721)			(895,587)			
				(322,244)			(947,341)						(382,404)	
	(405,426)			(84,395)	(875,252)		(993,672)		(286,371)				(846,703)	
	(405,571)	(357,190)		(875,745)	(84,602)		(465,845)		(551,705)					
(407,4)	(407,4)	(841,648)		(501,594)	(552,157)		(102,948)		(128,285)				(365,764)	
	(407,993)				(501,403)	(102,49)	(176,748)						(171,684)	
(408,227)	(408,227)	(757,447)	(196,925)	(298,35)	(382,404)				(839,544)					
(408,770)	(408,770)	(196,72)	(757,550)			(636,206)								
	(409,113)	(56,792)				(506,626)			(702,652)					
	(409,884)		(56,205)		(440,185)		(506,371)						(636,206)	
(411,386)	(411,386)	(814,785)	(809,606)	(282,585)	(733,403)	(593,283)	(639,210)	(486,172)	(769,483)	(941,903)				
(411,611)	(411,611)	(809,391)	(814,212)	(733,594)	(282,412)	(639,787)	(593,714)	(769,514)	(486,825)	(939,448)	(941,94)	(826,499)	(266,454)	(841,648
(412,148)	(412,148)	(296,851)	(75,792)	(223,325)	(253,451)	(709,756)	(658,541)	(94,595)	(396,1)	(984,737)	(392,624)	(267,611)	(661,466)	(284,460
(412,849)	(412,849)	(75,205)	(296,146)	(253,546)	(223,672)	(658,456)	(709,241)	(396,996)	(94,402)	(392,373)	(984,260)	(661,531)	(267,386)	(516,50)
(413,192)	(413,192)	(551,292)	(786,466)	(959,849)	(553,257)	(226,109)	(892,284)	(808,820)	(357,807)	(389,836)	(520,10)	(932,332)	(99,15)	(314,549
(413,805)	(413,805)	(786,531)	(551,705)	(553,740)	(959,148)	(892,713)	(226,888)	(357,190)	(808,177)	(520,987)	(389,161)	(99,982)	(932,665)	(828,850
(416,202)	(416,202)	(878,225)	(350,824)	(943,821)	(525,624)	(919,965)	(489,571)	(267,386)	(53,406)	(484,810)	(665,39)	(94,402)	(644,125)	(345,709
(416,795)	(416,795)	(350,173)	(878,772)	(525,373)	(943,176)	(489,426)	(919,32)	(53,591)	(267,611)	(665,958)	(484,187)	(644,872)	(94,595)	(208,388
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						Elliptic	Curves ove	er finite fi	eias					
(417,83)	(417,83)	(840,712)	(134,676)	(471,201)	(486,172)	(138,170)	(186,15)	(713,225)	(282,585)	(290,208)	(799,476)	(547,531)	(558,660)	(210,301
(417,914)	(417,914)	(134,321)	(840,285)	(486,825)	(471,796)	(186,982)	(138,827)	(282,412)	(713,772)	(799,521)	(290,789)	(558,337)	(547,466)	(26,717)
(418,473)		(96,721)			(765,882)	(612,779)	(272,548)	(216,965)				(362,160)		(177,197)
(418,524)	(418,524)	(484,187)		(765,115)	(193,703)	(272,449)		(638,784)				(781,170)		(744,1)
									_					
(419,447)	(419,447)	(518,821)	(611,395)	(756,823)	(139,404)	(784,591)	(497,774)	(555,702)	(67,93)		(241,169)		(774,699)	(194,193
(419,550)		(611,602)	(518,176)	(139,593)	(756,174)	(497,223)	(784,406)	(67,904)	(555,295)		(307,446)		(794,49)	(879,45)
(421,388)	(421,388)	(682,413)	(216,32)	(337,871)	(99,15)	(856,321)	(625,521)	(484,187)	(986,872)	(267,611)	(760,594)	(959,849)	(392,624)	(757,550
(421,609)	(421,609)	(216,965)	(682,584)	(99,982)	(337,126)	(625,476)	(856,676)	(986,125)	(484,810)	(760,403)	(267,386)	(392,373)	(959,148)	(967,800
(422,338)	(422,338)	(94,595)	(403,772)	(153,804)	(718,824)	(242,228)	(259,115)	(119,460)	(75,792)	(407,993)	(362,837)	(878,772)	(398,67)	(433,992
(422,659)	(422,659)	(403,225)	(94,402)	(718,173)	(153,193)	(259,882)	(242,769)	(75,205)	(119,537)	(362,160)	(407,4)	(398,930)	(878,225)	(737,200
(424,208)	(424,208)	(785,807)	(493,753)	(625,476)	(514,823)	(854,996)	(337,126)	(158,748)	(393,704)	(364,125)	(653,485)	(818,550)	(820,852)	(542,247
(424,789)	(424,789)		(785,190)	(514,174)	(625,521)	(337,871)	(854,1)	(393,293)	(158,249)	(653,512)	(364,872)		(818,447)	(479,89)
(427,496)	(427,496)		(149,914)	(188,825)	(203,410)	(981,713)	(834,35)	(307,551)	(787,228)	(55,487)	(67,93)	(367,51)	(12,755)	(10,134)
							(981,284)							
(427,501)	(427,501)	(149,83)	(624,454)	(203,587)		(834,962)		(787,769)		(67,904)	(55,510)	(12,242)	(367,946)	(627,191)
(428,93)	(428,93)		(459,668)		(768,487)	(671,504)	(616,257)		(877,884)	(435,791)	(638,213)	(814,212)	(822,213)	(365,764
(428,904)	(428,904)	(459,329)	(266,543)	(768,510)	(922,94)	(616,740)	(671,493)	(877,113)	(650,804)			(822,784)	(814,785)	(232,194
(429,13)	(429,13)	(192,750)	(322,753)	(638,784)	(208,388)	(82,942)	(389,161)	(921,743)	(193,703)	(892,713)	(922,94)	(196,72)	(812,714)	(703,838
(429,984)	(429,984)	(322,244)	(192,247)	(208,609)	(638,213)	(389,836)	(82,55)	(193,294)	(921,254)	(922,903)	(892,284)	(812,283)	(196,925)	(525,624
(431,83)	(431,83)	(983,412)	(83,551)	(273,169)	(884,309)	(921,254)	(616,740)	(82,55)	(760,403)	(303,443)	(986,125)	(26,280)	(843,273)	(558,66c
(431,914)	(431,914)	(83,446)	(983,585)	(884,688)	(273,828)	(616,257)	(921,743)	(760,594)	(82,942)	(986,872)	(303,554)	(843,724)	(26,717)	(755,301
(432,349)	(432,349)	(812,283)	(158,748)	(993,672)	(384,59)	(875,252)	(641,226)	(895,587)	(785,807)	(236,759)	(794,49)	(241,828)	(192,247)	(835,956
(432,648)		(158,249)	(812,714)	(384,938)	(993,325)	(641,771)	(875,745)	(785,190)	(895,410)	(794,948)		(192,750)	(241,169)	(606,779
(433,5)	(433,5)	(939,448)	(547,466)	(271,721)	(582,329)	(244,930)	(966,392)	(836,425)		(257,160)	(814,212)	(134,321)	(435,791)	(422,659
														
(433,992)		(547,531)	(939,549)	(582,668)	(271,276)	(966,605)	(244,67)	(584,158)		(814,785)	(257,837)		(134,676)	(46,280)
(435,206)	(435,206)	(208,388)	(938,134)	(322,753)	(51,516)	(752,341)	(825,257)	(554,10)	(821,544)	(428,904)	(744,1)	(298,962)		
(435,791)	(435,791)	(938,863)	(208,609)	(51,481)	(322,244)	(825,740)	(752,656)	(821,453)	(554,987)	(744,996)	(428,93)	(433,5)	(298,35)	(878,225
(436,16)	(436,16)	(756,174)	(465,845)	(518,176)	(966,605)	(357,190)	(582,668)	(879,952)	(226,888)	(627,806)	(526,59)	(912,55)	(758,994)	(67,93)
(436,981)	(436,981)	(465,152)	(756,823)	(966,392)	(518,821)	(582,329)	(357,807)	(226,109)	(879,45)	(526,938)	(627,191)	(758,3)	(912,942)	(482,392
(438,292)	(438,292)	(389,161)	(27,194)	(438,705)	(825,257)	(322,753)	(404,770)	(464,908)	(61,612)	(551,705)	(297,660)	(107,543)	(632,456)	(570,521
(438,705)	(438,705)	(27,803)	(389,836)	(825,740)	(438,292)	(404,227)	(322,244)	(61,385)	(464,89)	(297,337)	(551,292)	(632,541)	(107,454)	(457,709
(440,185)	(440,185)	(232,194)	(778,672)	(409,884)	(297,337)	(771,155)	(744,996)	(598,385)	(283,208)	(654,805)	(825,740)	(831,77)	(534,784)	(612,779
(440,812)		(778,325)		(297,660)		(744,1)	(771,842)	(283,789)		(825,257)	(654,192)	(534,213)	(831,920)	
(443,393)		(609,123)		(497,774)	(902,95)	(139,404)	(906,572)	(447,146)	(46,280)	(754,871)	(397,516)	(681,335)	(517,210)	(801,238
									(447.851)	(397,481)			(681,662)	
(443,604)				(902,902)	(497,223)	(906,425)	(139,593)	(46,717)			(754,126)	(517,787)	1	(584,839
(447,146)	(447,146)	(232,803)	(630,721)	(601,546)	(610,161)	(473,670)	(29,712)	(903,126)		(520,10)	(344,9)	(62,95)	(291,773)	(459,668
	(447,851)					(29,285)	(473,327)	(443,604)						
(449,226)	(449,226)	(602,956)	(318,744)	(103,426)	(477,393)	(829,704)	(698,850)	(623,849)	(61,385)	(606,218)	(829,293)	(194,804)	(970,882)	(794,49)
(449,771)	(449,771)	(318,253)	(602,41)	(477,604)	(103,571)	(698,147)	(829,293)	(61,612)	(623,148)	(829,704)	(606,779)	(970,115)	(194,193)	(311,498
(452,401)	(452,401)	(552,157)	(983,412)	(319,611)	(184,756)	(615,165)	(86,833)	(769,483)	(483,828)	(541,774)	(852,807)	(483,169)	(824,254)	(524,715
(452,596)	(452,596)	(983,585)	(552,840)	(184,241)	(319,386)	(86,164)	(615,832)	(483,169)	(769,514)	(852,190)	(541,223)	(824,743)	(483,828)	(860,109
(453,473)	(453,473)	(214,489)	(254,146)	(293,764)	(334,453)	(43,724)	(217,678)	(102,49)	(388,443)	(721,648)	(56,792)	(146,50)	(705,343)	(842,795
(453,524)	(453,524)	(254,851)	(214,508)	(334,544)	(293,233)	(217,319)	(43,273)	(388,554)	(102,948)	(56,205)	(721,349)	(705,654)	(146,947)	(468,85C
	(457,288)						(654,192)		(597,586)	(744,1)		(822,213)		
(457,709)									(232,803)					
	(459,329)					T		(801,759)						
						(920,10)						(625,476)		
-	(459,668)			(820,145)		(959,849)								
(463,471)	(463,471)	(149,914)	(267,386)	(819,596)	(613,796)	(383,77)			(878,225)		(370,820)	(75,205)	(846,294)	
(463,526)	(463,526)	(267,611)	(149,83)	(613,201)	(819,401)	(165,163)	(383,920)	(878,772)	(674,606)	(370,177)	(216,32)	(846,703)	(75,792)	(821,544
(464,89)	(464,89)	(612,218)	(859,32)	(355,930)	(61,612)	(96,276)	(888,988)	(438,705)	(477,604)	(960,744)	(405,426)	(557,41)	(133,840)	(232,803
(464,908)	(464,908)	(859,965)	(612,779)	(61,385)	(355,67)	(888,9)	(96,721)	(477,393)	(438,292)	(405,571)	(960,253)	(133,157)	(557,956)	(30,852)
(465,152)	(465,152)	(650,804)	(436,981)	(736,202)	(672,338)	(205,626)	(405,426)	(266,543)	(483,169)	(96,276)	(536,992)	(291,773)	(769,483)	(283,208
(465,845)	(465,845)	(436,16)	(650,193)	(672,659)	(736,795)	(405,571)	(205,371)	(483,828)	(266,454)	(536,5)	(96,721)	(769,514)	(291,224)	(539,311
	(468,147)			(919,32)	(781,827)				(196,925)			(193,294)		_
	(468,850)				(919,965)	(147,145)	(943,821)		(786,466)					
	(471,201)			(850,800)		(300,327)	(728,773)		(567,688)				(937,838)	_
					(850,197)		(300,670)				(611,602)		(812,283)	
	(473,327)			(828,850)		(447,851)			(259,882)			(967,800)		(526,59)
(473,670)	(473,670)			(555,702)	(828,147)	(75,792)	(447,146)	(259,115)	(139,404)			(383,920)	(967,197)	(959,849
(476,404)	(476,404)	(322,753)	(842,202)	(533,821)	(938,134)	(769,514)	(27,194)	(615,832)	(593,714)	(284,460)	(78,827)	(757,550)	(205,371)	(254,851
(476,593)	(476,593)	(842,795)	(322,244)	(938,863)	(533,176)	(27,803)	(769,483)	(593,283)	(615,165)	(78,170)	(284,537)	(205,626)	(757,447)	(392,373
(477,393)	(477,393)	(584,839)	(302,395)	(449,226)	(660,402)	(63,491)	(704,456)	(547,466)	(464,908)	(286,626)	(741,448)	(713,772)	(339,764)	(300,327
(477,604)	(477,604)	(302,602)	(584,158)	(660,595)	(449,771)	(704,541)	(63,506)	(464,89)	(547,531)	(741,549)	(286,371)	(339,233)	(713,225)	(609,123
				350					- 30	01				- 3
1	L	I	l	I	I	1	I	l	I	l	I	I	1	I

						Empue	Curves ove	er finite fi	eias					
(478,483)	(478,483)	(525,373)	(392,624)	(942,518)	(878,772)	(209,506)	(457,288)	(198,496)	(613,201)	(296,851)	(765,115)	(682,413)	(153,804)	(322,753
(478,514)	(478,514)	(392,373)	(525,624)	(878,225)	(942,479)	(457,709)	(209,491)	(613,796)	(198,501)	(765,882)	(296,146)	(153,193)	(682,584)	(338,385
(479,89)	(479,89)	(632,541)	(875,252)	(645,662)	(110,686)	(546,605)	(812,283)	(588,725)	(180,665)	(725,506)	(932,332)	(728,224)	(389,836)	(143,546
(479,908)	(479,908)	(875,745)	(632,456)	(110,311)	(645,335)	(812,714)	(546,392)	(180,332)	(588,272)	(932,665)	(725,491)	(389,161)	(728,773)	(424,208
(482,392)	(482,392)	(283,208)	(713,225)	(242,769)	(724,823)	(153,193)	(344,9)	(778,672)	(840,712)	(473,670)	(76,522)	(302,602)	(209,491)	(249,743
(482,605)	(482,605)	(713,772)	(283,789)	(724,174)	(242,228)	(344,988)	(153,804)	(840,285)	(778,325)	(76,475)	(473,327)	(209,506)	(302,395)	(436,16)
(483,169)	(483,169)	(104,756)	(879,45)	(188,172)	(607,551)	(799,521)	(286,371)	(465,152)	(452,596)	(704,541)	(138,827)	(517,210)	(452,401)	(953,668
(483,828)	(483,828)	(879,952)	(104,241)	(607,446)	(188,825)	(286,626)	(799,476)	(452,401)	(465,845)	(138,170)	(704,456)	(452,596)	(517,787)	(611,395
(484,187)	(484,187)	(186,15)	(418,524)	(545,444)	(519,515)	(134,676)	(831,77)	(712,15)	(421,388)	(416,795)	(940,16)	(244,67)	(771,155)	(314,448
(484,810)	(484,810)	(418,473)	(186,982)	(519,482)	(545,553)	(831,920)	(134,321)	(421,609)		(940,981)	(416,202)	(771,842)	(244,930)	(729,585
(486,172)	(486,172)	(981,284)	(543,309)	(417,83)	(98,45)	(624,454)	(759,13)	(194,193)	(411,386)	(10,134)	(182,753)	(623,148)	(8,705)	(263,750
(486,825)	(486,825)			(98,952)	(417,914)	(759,984)	(624,543)	(411,611)	(194,804)	(182,244)	(10,863)	(8,292)	(623,849)	(67,904)
	(489,426)			(691,123)	(716,744)	(312,840)	(416,795)	(937,159)	(54,908)	(850,800)		(814,785)	(974,260)	(229,479
(489,571)		(826,499)		(716,253)	(691,874)	(416,202)	(312,157)	(54,89)	(937,838)	(134,321)	(850,197)	(974,737)	(814,212)	(171,313)
(490,4)	(490,4)	(175,526)		(56,792)	(723,401)	(251,489)	(841,648)	(80,373)	(174,510)	(334,453)	(147,852)	(668,335)	(348,311)	(663,249
	(490,993)		(175,471)	(723,596)	(56,205)	(841,349)	(251,508)	(174,487)	(80,624)	(147,145)		(348,686)		<u> </u>
(493,244)		(164,182)	(424,789)	(49,863)	(822,213)	(806,13)	(174,510)	(251,489)	(227,295)	(164,815)		(922,903)		
					, ,								, ,	
(493,753)	(493,753)	(424,208)		(822,784)	(49,134)	(174,487)	(806,984)	(227,702)	(251,508)	(196,72)	(164,182)	(570,521)	(922,94)	(228,482
(497,223)	(497,223)	(783,152)	(904,771)	(443,604)		(227,295)	(419,550)	(174,510)		(368,609)		(303,443)	(321,252)	(185,770
(497,774)	(497,774)	(904,226)		(900,659)	(443,393)	(419,447)	(227,702)	(601,546)			(368,388)	(321,745)	(303,554)	(222,833
(501,403)	(501,403)	(367,51)	(75,205)	(407,993)	(771,155)	(957,759)	(409,884)	(181,191)	(403,225)	(541,223)	(718,824)	(545,444)	(149,914)	(252,572
(501,594)	(501,594)	(75,792)	(367,946)	(771,842)	(407,4)	(409,113)	(957,238)	(403,772)		(718,173)	(541,774)	(149,83)	(545,553)	(708,884
(502,93)	(502,93)	(286,371)	(372,501)	(98,45)	(854,996)	(879,45)	(625,476)	(357,807)	(257,837)	(584,158)	(40,925)	(395,812)	(920,10)	(397,516
		(372,496)		(854,1)	(98,952)	(625,521)	(879,952)	(257,160)	(357,190)	(40,72)	(584,839)	(920,987)	(395,185)	(784,591
(506,371)	(506,371)	(348,311)		(393,704)	(744,996)	(409,884)	(365,764)	(514,823)	(703,159)	(522,163)	(51,481)	(176,249)	(408,770)	(193,294
(506,626)	(506,626)	(366,411)	(348,686)	(744,1)	(393,293)	(365,233)	(409,113)	(703,838)	(514,174)	(51,516)	(522,834)	(408,227)	(176,748)	(671,493
(511,391)	(511,391)	(168,511)	(856,676)	(788,449)	(729,412)	(216,965)	(281,788)	(229,479)	(272,548)	(962,654)	(165,834)	(356,588)	(708,113)	(545,444
(511,606)	(511,606)	(856,321)	(168,486)	(729,585)	(788,548)	(281,209)	(216,32)	(272,449)	(229,518)	(165,163)	(962,343)	(708,884)	(356,409)	(54,89)
(514,174)	(514,174)	(49,863)	(956,223)	(714,422)	(424,789)	(370,177)	(702,652)	(506,626)	(866,792)	(532,508)	(383,920)	(839,544)	(618,981)	(645,662
(514,823)	(514,823)	(956,774)	(49,134)	(424,208)	(714,575)	(702,345)	(370,820)	(866,205)	(506,371)	(383,77)	(532,489)	(618,16)	(839,453)	(111,273)
(516,50)	(516,50)	(733,403)	(272,548)	(809,606)	(723,596)	(96,721)	(228,515)	(168,511)	(947,341)	(205,371)	(772,704)	(78,827)	(776,218)	(806,13)
(516,947)	(516,947)	(272,449)	(733,594)	(723,401)	(809,391)	(228,482)	(96,276)	(947,656)	(168,486)	(772,293)	(205,626)	(776,779)	(78,170)	(412,148
(517,210)	(517,210)	(577,187)	(761,925)	(303,554)	(250,515)	(219,298)	(344,988)	(291,773)	(824,743)	(273,828)	(29,285)	(443,393)	(483,169)	(858,165
(517,787)	(517,787)	(761,72)	(577,810)	(250,482)	(303,443)	(344,9)	(219,699)	(824,254)	(291,224)	(29,712)	(273,169)	(483,828)	(443,604)	(295,341
(518,176)	(518,176)	(419,550)	(672,659)	(926,173)	(436,16)	(904,771)	(941,903)	(128,285)	(78,170)	(160,591)	(593,283)	(947,656)	(755,696)	(26,280)
(518,821)	(518,821)	(672,338)	(419,447)	(436,981)	(926,824)	(941,94)	(904,226)	(78,827)	(128,712)	(593,714)	(160,406)	(755,301)	(947,341)	(724,823
(519,482)	(519,482)	(193,294)	(759,984)	(949,584)	(484,810)	(235,512)	(543,688)	(99,982)	(192,247)	(382,404)	(943,821)	(895,587)	(808,177)	(901,51)
(519,515)	(519,515)	(759,13)	(193,703)	(484,187)	(949,413)	(543,309)	(235,485)	(192,750)	(99,15)	(943,176)	(382,593)	(808,820)	(895,410)	(366,411
(520,10)	(520,10)	(142,337)	(766,958)	(249,743)	(703,159)	(618,981)	(363,584)	(393,704)	(754,871)	(413,192)	(447,146)	(702,652)	(980,212)	(208,609
(520,987)	(520,987)	(766,39)	(142,660)	(703,838)	(249,254)	(363,413)	(618,16)	(754,126)	(393,293)	(447,851)	(413,805)	(980,785)	(702,345)	(724,174)
(521,165)	(521,165)	(162,812)	(226,888)	(555,295)	(708,113)	(786,531)	(200,785)	(756,174)	(147,852)	(80,373)	(737.797)	(788,449)	(30,852)	(407,993
(521,832)	(521,832)	(226,109)	(162,185)	(708,884)	(555,702)	(200,212)	(786,466)	(147,145)	(756,823)	(737,200)	(80,624)	(30,145)	(788,548)	(133,840
(522,163)	(522,163)	(960,253)	(919,965)	(808,820)	(457,709)	(143,451)	(878,225)	(383,77)	(553,257)	(612,779)	(506,371)	(259,882)	(949,413)	(546,392
(522,834)	(522,834)	(919,32)	(960,744)	(457,288)	(808,177)	(878,772)	(143,546)	(553,740)	(383,920)	(506,626)	(612,218)	(949,584)	(259,115)	(825,257
(524,282)	(524,282)	(558,660)	(555,295)	(957,759)	(162,812)	(589,714)	(771,155)	(611,602)	(34,411)	(974,260)	(823,479)	(134,676)	(953,329)	(452,596
(524,715)	(524,715)	(555,702)	(558,337)	(162,185)	(957,238)	(771,842)	(589,283)	(34,586)	(611,395)	(823,518)	(974,737)	(953,668)	(134,321)	(83,446)
(525,373)	(525,373)	(783,845)	(478,483)	(36,260)	(416,795)	(691,123)	(903,871)	(29,285)	(146,947)		(545,444)			(429,13)
	(525,624)			(416,202)	(36,737)		(691,874)	(146,50)	(29,712)		(824,254)			
(526,59)	(526,59)	(184,241)	(96,721)					(55,487)	(533,176)		(787,228)			
	(526,938)		(184,756)	(552,157)	(593,714)	(733,594)		(533,821)	(55,510)		(436,981)			(473,670
	(532,489)			(653,485)		(932,665)		(758,994)			(546,392)			
	(532,508)			(821,544)	(653,512)			(51,516)	(758,3)		(514,174)			
		(737,797)		(476,593)			(737,200)	(526,59)		(226,888)			(546,392)	
		(404,227)	(737,200)	(746,152)		(737,797)	(389,836)		(526,938)					(259,115
			(40,72)		(636,791)			, ,						(411,611)
(534,213) (534,784)		(549,481)				(298,35)	(225,511)	(34,411)		(896,410)				
		(40,925)				(225,486)		(263,750)		(372,501)				(361,809
(536,5)	(536,5)	(627,806)		(30,852)	(593,283)				(938,863)					
	(536,992)		(627,191)	(593,714)	(30,145)	(282,412)		(938,134)		(465,152)				—
	(537,200)	(36,737)	(900,338)	(783,152)	(229,518)	(43,273)		(729,585)		(665,39)	(948,2)	(77,393)	(657,755)	(716,253
(537,797)		(900,659)		(229,479)	(783,845)	(641,226)		(189,806)		(948,995)			(77,604)	(712,15)
(539,311)		(67,93)	(370,820)	(398,67)	(396,996)		(901,946)		(253,546)					(543,309
(539,686)	(539,686)	(370,177)	(67,904)	(396,1)	(398,930)	(901,51)	(956,223)	(253,451)	(611,602)	(567,309)	(149,83)	(140,684)	(718,173)	(465,152
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						Elliptic	Curves ove	er Finite Fi	elds					
(541,223)	(541,223)	(835,41)	(153,804)	(573,422)	(94,595)	(713,772)	(143,451)	(138,827)	(223,325)	(452,596)	(501,403)	(525,373)	(704,456)	(812,714)
(541,774)	(541,774)	(153,193)	(835,956)	(94,402)	(573,575)	(143,546)	(713,225)	(223,672)	(138,170)	(501,594)	(452,401)	(704,541)	(525,624)	(823,518
(542,247)	(542,247)		(228,482)	(291,224)	(111,273)	(195,288)	(272,449)		(281,209)					-
		(228,515)												_
(542,750)				(111,724)	(291,773)	(272,548)			(303,554)					-
(543,309)			(788,449)	(134,676)	(168,511)	(698,850)			(809,606)		(345,288)		(162,812)	(665,958
(543,688)	(543,688)	(788,548)	(486,825)	(168,486)		(519,482)	(698,147)	(809,391)	(747,483)	(345,709)	(716,253)	(162,185)	(271,721)	(539,686
(545,444)	(545,444)	(728,773)	(765,115)	(365,233)	(484,187)	(934,449)	(393,293)	(363,413)	(337,871)	(525,373)	(965,228)	(632,456)	(501,403)	(922,94)
(545,553)	(545,553)	(765,882)	(728,224)	(484,810)	(365,764)	(393,704)	(934,548)	(337,126)	(363,584)	(965,769)	(525,624)	(501,594)	(632,541)	(511,606
(546,392)	(546,392)	(672,659)	(382,404)	(757,447)	(650,193)	(479,908)	(668,335)	(100,993)	(922,903)	(532,489)	(193,294)	(533,176)	(251,489)	(337,126
(546,605)	(546,605)	(382,593)	(672,338)	(650,804)	(757,550)	(668,662)	(479,89)	(922,94)	(100,4)	(193,703)	(532,508)	(251,508)	(533,821)	(522,834
(547,466)		(433,5)	(993,672)	(623,849)	(812,283)	(645,662)	(852,807)	(284,537)	(477,393)	(615,165)	(215,295)	(417,914)	(208,609)	(94,402)
				(812,714)										
(547,531)	(547,531)	(993,325)	(433,992)		(623,148)	(852,190)	(645,335)		(284,460)	(215,702)				(702,345
	(548,409)			(28,5)	(126,473)	(86,833)	(87,938)		(361,809)	(32,301)	(114,3)		(689,833)	
(548,588)	(548,588)	(459,668)	(339,233)	(126,524)	(28,992)	(87,59)	(86,164)	(361,188)	(114,3)	(114,994)	(32,696)	(689,164)	(302,602)	(263,247
(549,481)	(549,481)	(370,820)	(534,213)	(806,984)	(165,163)	(49,134)	(613,201)	(209,506)	(665,39)	(267,386)	(729,585)	(984,260)	(778,325)	(809,391
(549,516)	(549,516)	(534,784)	(370,177)	(165,834)	(806,13)	(613,796)	(49,863)	(665,958)	(209,491)	(729,412)	(267,611)	(778,672)	(984,737)	(940,16)
(551,292)	(551,292)	(671,493)	(413,192)	(671,504)	(297,660)	(266,543)	(768,487)	(705,343)	(405,426)	(438,705)	(142,337)	(388,443)	(639,210)	(744,996
(551,705)	(551,705)	(413,805)	(671,504)	(297,337)	(671,493)	(768,510)	(266,454)	(405,571)	(705,654)	(142,660)	(438,292)	(639,787)	(388,554)	(348,311
(552,157)	(552,157)	(661,531)	(452,401)	(407,4)	(526,938)	(257,160)	(76,522)	(746,152)	(879,952)	(153,193)	(966,392)		(296,146)	(555,702
(552,840)		(452,596)					(257,837)		(746,845)	(966,605)	(153,804)	(296,851)	(104,241)	
			(661,466)	(526,59)	(407,993)	(76,475)		(879,45)		_				(137,155)
(553,257)	(553,257)	(297,660)	(601,546)	(413,192)	(232,803)	(78,827)	(20,45)	(522,163)	(904,226)	(27,194)	(703,159)	(657,755)	(228,515)	(922,903
(553,740)	(553,740)	(601,451)	(297,337)	(232,194)	(413,805)	(20,952)	(78,170)	(904,771)	(522,834)	(703,838)	(27,803)	(228,482)	(657,242)	(355,67)
(554,10)	(554,10)	(339,233)	(697,715)	(888,9)	(610,836)	(604,486)	(355,67)	(180,665)	(435,206)	(877,113)	(395,812)	(955,294)	(584,158)	(681,335
(554,987)	(554,987)	(697,282)	(339,764)	(610,161)	(888,988)	(355,930)	(604,511)	(435,791)	(180,332)	(395,185)	(877,884)	(584,839)	(955,703)	(20,45)
(555,295)	(555,295)	(524,282)	(78,170)	(473,327)	(521,165)	(601,451)	(362,837)	(419,550)	(356,409)	(242,228)	(842,795)	(272,449)	(597,411)	(552,840
(555,702)	(555,702)	(78,827)	(524,715)	(521,832)	(473,670)	(362,160)	(601,546)	(356,588)	(419,447)	(842,202)	(242,769)	(597,586)	(272,548)	(721,349
(557,41)	(557,41)	(361,188)	(180.665)	(328,242)	(243,595)	(980,212)	(185,770)	(632,541)	(339,233)	(923,791)	(397,481)	(363,584)	(464,89)	(40,72)
(557,956)		(180,332)			(328,755)	(185,227)	(980,785)		(632,456)			(464,908)		(227,702
			(558,660)								(4,699)	(840,712)	,	_
(558,337)	(558,337)			(8,292)	(937,159)	(198,501)	(29,285)	(209,491)		(219,298)			(417,914)	(431,914
	(558,660)	(558,337)	(524,282)	(937,838)	(8,705)	(29,712)	(198,496)		(209,506)	(4,298)	(219,699)	(417,83)	(840,285)	(983,585
(562,188)	(562,188)	(956,223)	(10,134)	(139,404)	(660,595)	(67,904)	(902,95)	(828,147)	(784,406)	(160,406)	(981,284)	(987,995)	(3,55)	(357,807
(562,809)	(562,809)	(10,863)	(956,774)	(660,402)	(139,593)	(902,902)	(67,93)	(784,591)	(828,850)	(981,713)	(160,591)	(3,942)	(987,2)	(624,454
(563,39)	(563,39)	(689,164)	(955,294)	(274,553)	(755,696)	(754,871)	(910,201)	(363,584)	(306,443)	(858,832)	(906,572)	(926,173)	(339,233)	(273,169
(563,958)	(563,958)	(955,703)	(689,833)	(755,301)	(274,444)	(910,796)	(754,126)	(306,554)	(363,413)	(906,425)	(858,165)	(339,764)	(926,824)	(195,709
(567,309)	(567,309)	(177,800)	(726,946)	(282,412)	(613,201)	(806,984)	(30,145)	(942,518)	(471,796)	(50,652)	(539,686)	(780,920)	(200,212)	(96,276)
(567,688)	(567,688)	(726,51)	(177,197)	(613,796)	(282,585)	(30,852)	(806,13)	(471,201)	(942,479)	(539,311)	(50,345)	(200,785)	(780,77)	(345,288
	(570,476)					(942,518)						(493,244)		
	(570,521)					(727,493)			(354,838)					
	(573,422)			(966,605)										
(573,575)	(573,575)	(787,769)			(966,392)	(271,721)	(194,193)	(663,748)	(624,454)	(407,4)	(184,756)	(698,147)	(36,737)	(80,624)
(577,187)	(577,187)	(249,743)	(517,210)	(679,788)	(766,958)	(823,518)	(32,696)	(37,788)	(210,301)	(87,59)	(589,283)	(609,123)	(104,756)	(101,49)
(577,810)	(577,810)	(517,787)	(249,254)	(766,39)	(679,209)	(32,301)	(823,479)	(210,696)	(37,209)	(589,714)	(87,938)	(104,241)	(609,874)	(713,772
(582,329)	(582,329)	(205,626)	(812,283)	(433.5)	(941,94)	(632,541)	(436,981)	(663,249)	(185,770)	(733,594)	(137,842)	(934,548)	(322,244)	(153,193
(582,668)	(582,668)	(812,714)	(205,371)	(941,903)	(433,992)	(436,16)	(632,456)	(185,227)	(663,748)	(137,155)	(733,403)	(322,753)	(934,449)	(174,487
(584,158)	(584,158)	(477,604)	(182,753)	(185,227)	(602,41)	(55,510)	(328,755)	(859,32)	(433,992)	(981,284)	(502,93)	(554,10)	(295,656)	(443,393
	(584,839)			(602,956)		(328,242)	(55,487)	(433,5)				(295,341)		
	(588,272)			(778,672)		(200,785)			(724,823)					
														(393,704
	(588,725)					(922,94)		(724,174)				(806,984)		(78,170)
(589,283)	(589,283)	(601,546)	(29,285)	(189,806)	(630,721)	(524,715)	(630,276)	(224,327)	(783,845)	(577,187)	(975,773)	(327,654)	(748,522)	(126,524
(589,714)	(589,714)	(29,712)	(601,451)	(630,276)	(189,191)	(630,721)	(524,282)	(783,152)	(224,670)	(975,224)	(577,810)	(748,475)	(327,343)	(86,164)
(593,283)	(593,283)	(307,446)	(93,409)	(536,5)	(526,59)	(816,820)	(411,386)	(624,454)	(476,593)	(518,176)	(736,795)	(289,725)	(378,837)	(225,486
(593,714)	(593,714)	(93,588)	(307,551)	(526,938)	(536,992)	(411,611)	(816,177)	(476,404)	(624,543)	(736,202)	(518,821)	(378,160)	(289,272)	(828,147
(594.460)	(594,460)	(760.403)		(781,827)	(89,155)	(70,839)	(205,626)	(83,551)	(361.188)	(228.482)	(682.584)	(765,882)	(27,803)	(34,411)
		(632,456)		(89,842)	(781,170)	(205,371)	(70,158)	(361,809)				(27,194)	(765,115)	
	(596,493)			(162,812)	(616,740)	(273,169)	(768,510)	(33,902)		(219,699)	(912,55)		(627,806)	(367,51)
	(596,504)				(162,185)	(768,487)	(273,828)	(776,779)	(33,95)		(219,298)		(168,486)	
(597,411)	(597,411)	(953,329)	(653,485)	(383,77)	(30,852)	(694,874)	(613,796)	(794,49)	(457,709)	(785,807)	(714,575)	(555,295)	(101,948)	(104,241
(597,586)	(597,586)	(653,512)	(953,668)	(30,145)	(383,920)	(613,201)	(694,123)	(457,288)	(794,948)	(714,422)	(785,190)	(101,49)	(555,702)	(61,612)
(598,385)	(598,385)	(609,874)	(110,311)	(702,345)	(875,745)	(384,938)	(714,575)	(311,498)	(440,185)	(694,874)	(857,499)	(249,254)	(263,750)	(302,395
	(598,612)					(714,422)	(384,59)		(311,499)					
	(601,451)				(786,531)	(53,591)	(555,295)	(497,223)		(59,2)		(542,247)		
	(601,546)			(786,466)		(555,702)	(53,406)	(919,965)		(249,743)	(59,995)		(542,750)	
,001,540/	,001,540)	1003,45//	(509,203)	,, 50,400)	\ 4 4/,140/	(333,/02)	100,400/	(919,905)	\ 4 3/,//4/	(49,/43)	(28,885)	(094,143)	(044,/50)	(020,145
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				_	_	Elliptic	Curves ove	er Finite Fi	eias	_	_	_	_	_
(602,41)	(602,41)	(449,771)	(834,35)	(584,158)	(62,902)	(624,543)	(364,125)	(816,177)	(271,276)	(131,903)	(854,996)	(610,836)	(747,514)	(902,95)
(602,956)	(602,956)	(834,962)	(449,226)	(62,95)	(584,839)	(364,872)	(624,454)	(271,721)	(816,820)	(854,1)	(131,94)	(747,483)	(610,161)	(860,888
(604,486)	(604,486)	(273,828)	(319,386)	(983,585)	(323,825)	(738,803)	(554,10)	(100,4)	(752,341)	(12,242)	(761,925)	(263,750)	(55,510)	(689,833
(604,511)	(604,511)	(319,611)	(273,169)	(323,172)	(983,412)	(554,987)	(738,194)	(752,656)	(100,993)	(761,72)	(12,755)	(55,487)	(263,247)	(8,292)
(606,218)	(606,218)	(854,1)	(180,332)	(311,498)	(286,626)	(785,190)	(607,446)	(697,282)	(875,745)	(694,123)	(449,226)	(125,994)	(59,995)	(432,349
(606,779)	(606,779)				(311,499)	(607,551)	(785,807)	(875,252)	(697,715)		(694,874)	(59,2)	(125,3)	(103,426
	(607,446)								(672,659)				(250,482)	(641,226
(607,551)		(100.4)	(128,712)	(483,169)	(312,157)	(716,253)	(606,779)	(672,338)		(698,147)		(250,515)	(184,756)	(741,549
(609,123)				(904,226)	(311,498)	(926,824)		(232,803)		(681,662)	(327,654)	(754,126)	(577,187)	(877,884
	(609,874)				(904,771)	(866,792)		(702,652)		(327,343)	(681,335)	(577,810)	(754,871)	(477,393
(610,161)		(354,838)		(447,146)	(554,987)	(828,147)	(323,172)	(51,481)	(902,95)	(703,159)		(602,956)		(892,284
T.			(354,159)	(554,10)	(447,851)	(323,825)	(828,850)	(902,902)	(51,516)	(773,282)	(703,838)		(602,41)	(816,820
(611,395)	(611,395)	(419,447)	(691,123)	(641,226)	(290,208)	(384,59)	(783,845)	(524,715)	(539,311)	(359,526)	(471,201)	(860,109)	(295,341)	(747,514)
(611,602)	(611,602)	(691,874)	(419,550)	(290,789)	(641,771)	(783,152)	(384,938)	(539,686)	(524,282)	(471,796)	(359,471)	(295,656)	(860,888)	(483,169
(612,218)	(612,218)	(831,77)	(464,89)	(245,652)	(725,506)	(418,524)	(615,165)	(27,803)	(302,602)	(522,834)	(645,662)	(361,188)	(778,672)	(440,812
(612,779)	(612,779)	(464,908)	(831,920)	(725,491)	(245,345)	(615,832)	(418,473)	(302,395)	(27,194)	(645,335)	(522,163)	(778,325)	(361,809)	(532,489
(613,201)	(613,201)	(146,947)	(225,511)	(567,309)	(463,526)	(549,481)	(597,586)	(478,483)	(850,197)	(54,89)	(398,930)	(214,508)	(362,160)	(93,588)
(613,796)	(613,796)	(225,486)	(146,50)	(463,471)	(567,688)	(597,411)	(549,516)	(850,800)	(478,514)	(398,67)	(54,908)	(362,837)	(214,489)	(962,654
(614,319)	(614,319)	(229,518)	(707,422)	(900,338)	(747,483)	(114,994)	(852,190)	(168,486)	(87,938)	(210,696)	(86,164)	(33,95)	(62,95)	(290,789
(614,678)	(614,678)	(707,575)	(229,479)	(747,514)	(900,659)	(852,807)	(114,3)	(87,59)	(168,511)	(86,833)	(210,301)	(62,902)	(33,902)	(975,773
(615,165)	(615,165)	(257,160)	(888,988)	(697,282)	(252,425)	(612,218)	(452,401)	(476,593)	(286,626)	(143,546)	(547,466)	(799,521)	(314,549)	(771,842
(615,832)	(615,832)	(888,9)	(257,837)	(252,572)	(697,715)	(452,596)	(612,779)		(476,404)		(143,451)	(314,448)	(799,476)	(932,665
(616,257)	(616,257)	(289,272)	(920,987)	(995,161)	(596,504)	(428,93)	(431,914)	(338,385)	(12,755)		(774,699)	(307,551)	(372,496)	(7,321)
(616,740)	(616,740)	(920,10)	(289,725)	(596,493)	(995,836)	(431,83)	(428,904)	(12,242)	(338,612)	(774,298)	(752,341)	(372,501)		
(618,16)	(618,16)		(938,863)					(627,806)		(473,327)	(226,888)		(514,823)	(787,228
		(80,373)			(842,795)	(520,987)	(217,319)							
(618,981)	(618,981)	(938,134)	(80,624)	(842,202)	(818,447)	(217,678)	(520,10)	(176,748)	(627,191)		(473,670)	(514,174)	(776,779)	(293,233
(623,148)	(623,148)	(877,113)	(271,276)	(547,531)	(120,725)	(77,604)	(705,343)		(266,543)		(697,715)	(43,724)		(598,385
			(877,884)	(120,272)	(547,466)	(705,654)	(77,393)		(449,226)			(486,825)	(43,273)	(343,839
(624,454)	(624,454)	(427,501)	(698,850)	(138,170)	(55,487)	(602,956)	(486,172)	(573,575)	(593,283)	(128,285)	(188,825)	(77,604)	(323,172)	(686,313
(624,543)	(624,543)	(698,147)	(427,496)	(55,510)	(138,827)	(486,825)	(602,41)	(593,714)	(573,422)	(188,172)	(128,712)	(323,825)	(77,393)	(562,188
(625,476)	(625,476)	(302,395)	(822,784)	(923,206)	(424,208)	(502,93)	(421,609)	(858,832)	(831,920)	(328,755)	(306,443)	(283,789)	(459,329)	(291,224
(625,521)	(625,521)	(822,213)	(302,602)	(424,789)	(923,791)	(421,388)	(502,904)	(831,77)	(858,165)	(306,554)	(328,242)	(459,668)	(283,208)	(110,686
(627,191)	(627,191)	(536,992)	(686,313)	(307,551)	(160,406)	(137,842)	(754,871)	(618,981)	(203,410)	(436,981)	(139,404)	(866,792)	(596,504)	(76,522)
(627,806)	(627,806)	(686,684)	(536,5)	(160,591)	(307,446)	(754,126)	(137,155)	(203,587)	(618,16)	(139,593)	(436,16)	(596,493)	(866,205)	(427,496
(630,276)	(630,276)	(53,406)	(447,851)	(970,115)	(589,714)	(589,283)	(957,759)	(350,824)	(173,522)	(32,696)	(766,39)	(758,994)	(103,571)	(125,994
(630,721)	(630,721)	(447,146)	(53,591)	(589,283)	(970,882)	(957,238)	(589,714)	(173,475)	(350,173)	(766,958)	(32,301)	(103,426)	(758,3)	(548,588
(632,456)	(632,456)	(479,908)	(594,537)	(107,454)	(244,67)	(582,668)	(382,404)	(557,956)	(721,349)	(388,554)	(235,512)	(438,292)	(545,444)	(493,753
(632,541)	(632,541)	(594,460)	(479,89)	(244,930)	(107,543)	(382,593)	(582,329)	(721,648)	(557,41)	(235,485)	(388,443)	(545,553)	(438,705)	(356,409
(636,206)	(636,206)	(834,35)	(165,834)	(345,288)	(534,784)	(149,914)	(408,770)	(210,301)	(772,704)	(168,511)	(901,946)	(409,884)	(912,55)	(943,176
	(636,791)			(534,213)	(345,709)	(408,227)			(210,696)			(912,942)		
	(638,213)			(429,984)		<u> </u>	(774,699)	(418,473)	(987,2)	(428,93)	(20,45)	(784,591)		(36,737)
	(638,784)		(404,227)	(862,35)	(429,13)	(774,298)		(987,995)			(428,904)		(784,406)	
	(639,210)								(846,703)					
					(235,512)		(949,584)							
	(639,787)	(99,982)				(949,413)			(759,984)					(490,4)
	(641,226)			(33,95)	(611,395)	(432,349)			(398,67)					
(641,771)		(882,665)		(611,602)	(33,902)				(162,812)		(335,50)	(747,514)	(119,537)	(607,551
(644,125)	(644,125)	(639,787)	(857,498)	(725,506)	(388,443)	(281,788)	(814,212)	(293,764)	(195,709)	(244,930)	(110,686)	(416,202)		
(644,872)	(644,872)	(857,499)	(639,210)	(388,554)	(725,491)	(814,785)	(281,209)	(195,288)	(293,233)	(110,311)	(244,67)	(671,493)	(416,795)	(306,443
(645,335)	(645,335)	(405,571)	(244,67)	(479,908)	(705,343)	(547,531)	(650,193)	(63,506)	(671,504)	(857,499)	(612,779)	(293,764)	(186,15)	(514,823
(645,662)	(645,662)	(244,930)	(405,426)	(705,654)	(479,89)	(650,804)	(547,466)	(671,493)	(63,491)	(612,218)	(857,498)	(186,982)	(293,233)	(654,192
(650,193)	(650,193)	(465,845)	(940,981)	(546,392)	(166,678)	(645,335)	(338,385)	(104,241)	(428,93)	(821,453)	(418,473)	(746,845)	(37,209)	(370,820
(650,804)	(650,804)	(940,16)	(465,152)	(166,319)	(546,605)	(338,612)	(645,662)	(428,904)	(104,756)	(418,524)	(821,544)	(37,788)	(746,152)	(457,288
(653,485)	(653,485)	(597,411)	(164,182)	(306,443)	(532,489)	(657,242)	(146,50)	(755,696)	(903,126)	(424,208)	(757,447)	(78,170)	(43,724)	(760,403
	(653,512)						(657,755)		(755,301)				(78,827)	(725,506
	(654,192)								(694,123)					
	(654,805)		(259,115)		(727,493)	(94,595)			(658,541)			(919,32)	(372,501)	
				(40,925)		(119,460)			(259,115)			(553,740)		
														-
	(657,755)	(827,182)		(932,332)	(40,72)	(653,512)			(310,163)		(854,1)	(537,200)		
	(658,456)		(744,996)	(348,311)	(78,170)	(232,194)		(926,173)					(306,443)	
	(658,541)	(744,1)	(473,670)	(78,827)	(348,686)				(926,824)				(723,596)	
	(660,402)		(785,807)			(180,665)	(26,280)	(812,283)	,_ ,	(131,94)		(974,260)		(138,170
(660,595)	(660,595)	(785,190)	(185,227)	(562,188)	(477,604)	(26,717)	(180,332)	(355,930)	(812,714)	(953,668)	(131,903)	(921,743)	(974,737)	(904,226
						l								

						Elliptic	Curves ove	er Finite Fi	elds					
(661,466)	(661,466)	(552,840)	(765,882)	(96,721)	(841,349)	(355,67)	(723,596)	(26,280)	(74,809)	(736,795)	(392,373)	(412,148)	(760,403)	(282,585
(661,531)	(661,531)	(765,115)	(552,157)	(841,648)	(96,276)	(723,401)	(355,930)	(74,188)	(26,717)	(392,624)	(736,202)	(760,594)	(412,849)	(78,827)
	(663,249)			(836,425)	(223 325)	(721,648)	(226,109)	(573,422)	(582,329)	(737,797)		(177,800)	(93,409)	(362,837
														,
	(663,748)			(223,672)		(226,888)		(582,668)		(217,319)	(737,200)	(93,588)	(177,197)	(490,993
(665,39)	(665,39)	(365,764)	(263,247)	(728,224)	(824,254)	(366,586)	(850,197)	(549,481)	(250,482)	(416,202)	(537,200)	(319,611)	(110,686)	(543,688
(665,958)	(665,958)	(263,750)	(365,233)	(824,743)	(728,773)	(850,800)	(366,411)	(250,515)	(549,516)	(537,797)	(416,795)	(110,311)	(319,386)	(459,329
(668,335)	(668,335)	(50,345)	(345,709)	(165,163)	(338,385)	(546,392)	(819,401)	(798,252)	(995,161)	(177,197)	(788,548)	(737,200)	(490,4)	(177,800
(668,662)	(668,662)	(345,288)	(50,652)	(338,612)	(165,834)	(819,596)	(546,605)	(995,836)	(798,745)	(788,449)	(177,800)	(490,993)	(737,797)	(878,772
(671,493)	(671,493)	(959,148)	(551,292)	(551,705)	(588,725)	(428,904)	(284,537)	(84,602)	(645,662)	(27,803)	(825,257)	(682,584)	(644,872)	(658,456
(671,504)	(671,504)	(551,705)	(959,849)	(588,272)	(551,292)	(284,460)	(428,93)	(645,335)	(84,395)	(825,740)	(27,194)	(644,125)	(682,413)	(506,371
(672,338)		(546,605)		(465,152)	(714,422)	(50,652)	(875,252)	(925,717)	(607,551)	(93,588)	(30,145)	(933,187)	(737,200)	
							, ,							
	(672,659)		(546,392)	(714,575)	(465,845)	(875,745)	(50,345)		(925,280)	(30,852)	(93,409)	(737,797)	(933,810)	(398,67)
(674,391)				(884,309)			(824,743)	(219,298)	(463,471)	(33,95)	(691,123)	(121,284)	(86,164)	(738,194
(674,606)	(674,606)	(910,796)	(359,471)	(850,197)	(884,688)	(824,254)	(689,833)	(463,526)	(219,699)	(691,874)	(33,902)	(86,833)	(121,713)	(748,522
(679,209)	(679,209)	(303,443)	(178,553)	(577,810)	(109,485)	(222,833)	(947,656)	(948,2)	(228,482)	(189,191)	(83,551)	(171,684)	(904,771)	(974,260
(679,788)	(679,788)	(178,444)	(303,554)	(109,512)	(577,187)	(947,341)	(222,164)	(228,515)	(948,995)	(83,446)	(189,806)	(904,226)	(171,313)	(227,295
(681,335)	(681,335)	(754,126)	(857,499)	(321,745)	(816,820)	(689,833)	(536,5)	(62,95)	(142,660)	(609,874)	(405,571)	(87,938)	(443,393)	(741,448
(681.662)	(681,662)	(857,498)	(754,871)	(816,177)	(321,252)	(536,992)	(689,164)	(142,337)	(62,902)	(405,426)	(609,123)	(443,604)	(87,59)	(554,987
(682,413)	(682,413)			(806,13)	(639,210)	(282,585)	(822,213)	(186,15)	(214,508)	(896,587)		(671,504)	(478,483)	(408,770
				_										
(682,584)			(388,443)		(806,984)	(822,784)	(282,412)	(214,489)	(186,982)		(896,410)		(671,493)	(723,401
(686,313)	(686,313)		(850,800)	(359,526)	(241,169)	(860,888)	(263,750)	(80,624)	(225,486)	(756,823)		(384,938)		(86,833)
(686,684)	(686,684)	(850,197)	(627,806)	(241,828)	(359,471)	(263,247)	(860,109)	(225,511)	(80,373)	(290,789)	(756,174)	(738,194)	(384,59)	(624,543
(689,164)	(689,164)	(215,295)	(563,39)	(987,2)	(794,49)	(681,662)	(674,391)	(862,962)	(383,77)	(993,672)	(866,205)	(139,593)	(548,588)	(604,511
(689,833)	(689,833)	(563,958)	(215,702)	(794,948)	(987,995)	(674,606)	(681,335)	(383,920)	(862,35)	(866,792)	(993,325)	(548,409)	(139,404)	(103,571
(691,123)	(691,123)	(611,395)	(209,506)	(882,332)	(489,426)	(866,205)	(525,373)	(558,337)	(370,820)	(674,391)	(934,449)	(137,155)	(713,772)	(82,942)
(691,874)		(209,491)		(489,571)	(882,665)	(525,624)	(866,792)		(558,660)				(137,842)	(104,756
(694,123)	(694,123)	(657,755)	(327,654)	(321,252)	(62,95)	(597,586)	(300,327)	(654,192)				(900,338)		
					, ,									
			(657,242)	(62,902)	(321,745)	(300,670)	(597,411)		(654,805)					(63,506)
(697,282)		(176,249)	(554,987)	(354,838)	(615,165)	(245,652)	(319,611)		(606,218)	(654,192)	(623,849)		(366,586)	
(697,715)	(697,715)	(554,10)	(176,748)	(615,832)	(354,159)	(319,386)	(245,345)	(606,779)	(938,134)	(623,148)	(654,805)	(366,411)	(182,753)	(857,499
(698,147)	(698,147)	(111,724)	(624,543)	(704,541)	(748,522)	(543,688)	(449,771)	(93,588)	(77,604)	(171,313)	(607,551)	(189,806)	(573,575)	(956,223
(698,850)	(698,850)	(624,454)	(111,273)	(748,475)	(704,456)	(449,226)	(543,309)	(77,393)	(93,409)	(607,446)	(171,684)	(573,422)	(189,191)	(850,800
(702,345)	(702,345)	(311,499)	(46,280)	(854,996)	(598,385)	(181,191)	(514,823)	(609,123)	(409,884)	(62,902)	(932,665)	(520,987)	(210,301)	(318,744
(702,652)	(702,652)	(46,717)	(311,498)	(598,612)	(854,1)	(514,174)	(181,806)	(409.113)	(609,874)	(932,332)	(62,95)	(210,696)	(520,10)	(547,466
(703,159)		(727,504)	(59,995)	(520,10)	(395,185)	(818,447)	(6,182)	(506,371)		(553,257)	(610,161)	(854,1)	(908,888)	(429,984
				(395,812)					(506,626)					
	(703,838)													
	(704,456)			(698,850)					(96,721)					
(704,541)	(704,541)	_	(55,510)	(26,717)		(168,486)			(852,190)			(273,828)		(926,824
(705,343)	(705,343)	(84,602)	(808,820)	(645,335)	(960,253)	(623,148)	(166,678)	(829,293)	(551,292)	(61,385)	(245,345)	(453,473)	(759,13)	(714,575
(705,654)	(705,654)	(808,177)	(84,395)	(960,744)	(645,662)	(166,319)	(623,849)	(551,705)	(829,704)	(245,652)	(61,612)	(759,984)	(453,524)	(727,504
(707,422)	(707,422)	(614,319)	(84,602)	(357,190)	(194,804)	(801,759)	(966,605)	(98,952)	(959,148)	(843,273)	(76,475)	(986,125)	(103,426)	(139,593
(707,575)	(707,575)	(84,395)	(614,678)	(194,193)	(357,807)	(966,392)	(801,238)	(959,849)	(98,45)	(76,522)	(843,724)	(103,571)	(986,872)	(59,995)
(708,113)		(596,493)		(521,165)	(289,725)	(87,938)			(939,448)		(769,514)		(536,5)	(501,403
	(708,884)		(596,504)		(521,832)	(284,537)	(87,59)					(536,992)		
														(709,241
	(709,241)		(910,796)		(133,840)	(412,849)		(896,587)				(355,930)		(228,515
	(709,756)		(56,792)	(133,157)	(175,526)	(955,294)	(412,148)		(896,410)	(214,489)	(34,411)	(54,908)	(355,67)	(708,113
(712,15)	(712,15)	(32,301)	(638,784)	(363,413)	(192,750)	(295,656)	(249,254)	(274,444)	(484,187)	(53,591)	(459,329)	(328,755)	(384,938)	(344,988
(712,982)	(712,982)	(638,213)	(32,696)	(192,247)	(363,584)	(249,743)	(295,341)	(484,810)	(274,553)	(459,668)	(53,406)	(384,59)	(328,242)	(537,200
(713,225)	(713,225)	(482,392)	(295,656)	(974,737)	(194,193)	(541,774)	(32,301)	(133,840)	(417,83)	(957,238)	(86,833)	(477,604)	(691,874)	(577,187
	(713,772)			(194,804)	(974,260)	(32,696)	(541,223)	(417,914)	(133,157)	(86,164)	(957,759)		(477,393)	
(714,422)				(672,338)		(54,89)	(598,612)	(744,1)	(312,157)			(955,703)		
(714,575)	(714,575)	(926,173)			(672,659)	(598,385)	(54,908)		(744,996)			(842,795)		
(716,253)		(798,745)			(489,571)	(943,821)		(50,652)	(762,988)			(3,55)	(252,425)	(149,83)
(716,744)	(716,744)	(10,134)	(798,252)	(489,426)	(799,476)	(607,446)	(943,176)	(762,9)	(50,345)	(471,201)	(543,309)	(252,572)	(3,942)	(537,797
(718,173)	(718,173)	(217,678)	(343,839)	(74,809)	(422,659)	(254,146)	(80,624)	(841,349)	(860,888)	(200,212)	(501,594)	(539,686)	(965,769)	(769,483
(718,824)	(718,824)	(343,158)	(217,319)	(422,338)	(74,188)	(80,373)	(254,851)	(860,109)	(841,648)	(501,403)	(200,785)	(965,228)	(539,311)	(271,276
(720,200)	(720,200)				(166,319)	(772,293)	(960,744)	(895,410)		(253,451)	(96,276)	(99,15)	(403,772)	(938,134
		(787,228)			(392,373)	(960,253)	(772,704)	(149,914)		(96,721)		(403,225)	(99,982)	(50,345)
						(663,748)						(61,612)		
(721,349)													(337,871)	
	(721,648)					(820,852)				(178,553)			(61,385)	(555,295
	(723,401)			(490,4)	(516,947)	(37,209)		(823,479)		(34,411)		(338,385)		
(723,596)	(723,596)	(257,837)	(967,197)	(516,50)	(490,993)	(661,466)	(37,788)	(372,501)	(823,518)	(939,549)	(34,586)	(658,541)	(338,612)	(682,413
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	'													

			_			Elliptic	Curves ove	er Finite Fi	elds				_	_
(724,174)	(724,174)	(194,804)	(960,253)	(84,602)	(482,605)	(773,282)	(787,228)	(981,713)	(588,725)	(859,965)	(828,850)	(780,77)	(318,744)	(518,176
(724,823)	(724,823)	(960,744)	(194,193)	(482,392)	(84,395)	(787,769)	(773,715)	(588,272)	(981,284)	(828,147)	(859,32)	(318,253)	(780,920)	(520,10)
(725,491)		(61,385)		(644,872)		(252,572)	(193.294)	(318.744)	(389,836)	(479.908)		(588.725)	(943.176)	(653.48
		(235,485)		(612,218)	(644,125)	(193,703)		(389,161)		(808,177)			(588,272)	
									, ,					
(726,51)	(726,51)			(225,486)	(137,155)	(160,591)		(241,169)	(403,772)	(67,93)		(895,410)	(882,332)	
(726,946)	(726,946)	(567,309)	(119,537)	(137,842)	(225,511)	(827,182)	(160,406)	(403,225)	(241,828)	(941,94)	(67,904)	(882,665)	(895,587)	(526,938
(727,493)	(727,493)	(703,838)	(254,851)	(654,805)	(142,660)	(343,158)	(570,521)	(321,745)	(348,686)	(354,159)	(297,337)	(468,147)	(174,487)	(705,343
(727,504)	(727,504)	(254,146)	(703,159)	(142,337)	(654,192)	(570,476)	(343,839)	(348,311)	(321,252)	(297,660)	(354,838)	(174,510)	(468,850)	(322,244
(728,224)	(728,224)	(545,553)	(368,609)	(186,982)	(665,39)	(251,508)	(471,796)	(806,984)	(975,224)	(943,821)	(783,152)	(367,946)	(479,89)	(168,486
(728,773)			(545,444)		(186,15)	(471,201)	(251,489)	(975,773)	(806,13)	(783,845)			(367,51)	(820,852
				, ,										_
(729,412)		4 .	(177,800)	(511,391)	(901,946)	(398,67)	(838,210)	(537,797)	(967,197)	(345,288)			(289,725)	
(729,585)	(729,585)	(177,197)	(372,496)	(901,51)	(511,606)	(838,787)	(398,930)	(967,800)	(537,200)	(549,481)	(345,709)	(289,272)	(259,882)	(50,652)
(733,403)	(733,403)	(252,572)	(516,50)	(411,386)	(257,837)	(526,59)	(235,512)	(98,45)	(737,200)	(582,668)	(147,145)	(925,717)	(798,252)	(827,815
(733,594)	(733,594)	(516,947)	(252,425)	(257,160)	(411,611)	(235,485)	(526,938)	(737,797)	(98,952)	(147,852)	(582,329)	(798,745)	(925,280)	(75,792)
(736,202)	(736,202)	(166,319)	(966,392)	(787,769)	(465,152)	(939,448)	(84,395)	(284,460)	(188,172)	(661,531)	(593,714)	(542,750)	(984,260)	(818,447
	(736,795)			(465,845)	(787,228)						(661,466)		(542,247)	
		_				-								
(737,200)		(533,821)	(947,341)	(769,483)			(178,444)	(733,403)	(184,756)	(663,748)		(672,338)	(668,335)	
(737,797)	(737,797)	(947,656)	(533,176)	(842,795)	(769,514)	(178,553)	(533,821)	(184,241)	(733,594)	(521,165)	(663,249)	(668,662)	(672,659)	(422,338
(738,194)	(738,194)	(762,9)	(596,493)	(8,705)	(920,10)	(604,511)	(892,713)	(986,872)	(798,252)	(4,699)	(82,942)	(98,45)	(686,684)	(323,825
(738,803)	(738,803)	(596,504)	(762,988)	(920,987)	(8,292)	(892,284)	(604,486)	(798,745)	(986,125)	(82,55)	(4,298)	(686,313)	(98,952)	(674,606
(741,448)	(741,448)	(981,713)	(383,77)	(829,293)	(953,329)	(103,571)	(149,914)	(215,295)	(960,253)	(477,393)	(956,774)	(957,759)	(801,238)	(607,446
(741,549)	(741,549)	(383,920)		(953,668)		(149,83)	(103,426)	(960,744)		(956,223)			(957,238)	
														
(744,1)	(744,1)	(314,448)	(658,541)	(925,717)		(296,851)		(395,812)		(435,206)		(298,35)	(257,837)	(551,705
(744,996)	(744,996)	(658,456)	(314,549)	(506,371)	(925,280)	(440,185)	(296,146)	(714,575)	(395,185)	(457,709)	(435,791)	(257,160)	(298,962)	(418,473
(746,152)	(746,152)	(74,188)	(769,483)	(217,319)	(533,821)	(842,795)	(293,233)	(814,785)	(552,157)	(362,837)	(836,572)	(650,804)	(54,908)	(356,588
(746,845)	(746,845)	(769,514)	(74,809)	(533,176)	(217,678)	(293,764)	(842,202)	(552,840)	(814,212)	(836,425)	(362,160)	(54,89)	(650,193)	(217,319)
(747,483)	(747,483)	(82,55)	(194,804)	(614,319)	(295,341)	(192,247)	(77,604)	(543,688)	(83,551)	(948,2)	(762,988)	(641,226)	(602,956)	(611,602
(747,514)	(747,514)	(194,193)	(82,942)	(295,656)	(614.678)	(77,393)	(192,750)	(83,446)	(543,309)	(762,9)	(948,995)	(602,41)	(641,771)	(250,515
	(748,475)	(138,170)	(542,247)	(758,994)				(835,956)		(312,840)		(966,605)		-
(748,522)		(542,750)		(698,147)	(758,3)		(103,571)	(821,544)	(835,41)	(104,756)			(966,392)	
(752,341)	(752,341)	(229,479)	(984,737)	(912,55)	(36,260)	(986,125)	(435,206)	(604,486)	(856,676)	(616,740)	(296,851)	(534,784)	(966,605)	(862,35)
(752,656)	(752,656)	(984,260)	(229,518)	(36,737)	(912,942)	(435,791)	(986,872)	(856,321)	(604,511)	(296,146)	(616,257)	(966,392)	(534,213)	(826,499
(754,126)	(754,126)	(263,247)	(681,335)	(310,163)	(843,273)	(563,958)	(627,806)	(40,72)	(520,987)	(443,604)	(357,190)	(273,169)	(609,123)	(981,713
(754,871)	(754,871)	(681,662)	(263,750)	(843,724)	(310,834)	(627,191)	(563,39)	(520,10)	(40,925)	(357,807)	(443,393)	(609,874)	(273,828)	(339,764
(755,301)	(755.301)	(933,187)		(758,3)	(563,958)	(7,321)	(310,163)	(653,512)	(6,815)	(378.160)	(158,249)		(518,821)	(318,253
				(563,39)					(653,485)					
		(641,771)		(419,550)				(26,717)			(184,241)		(300,327)	
(756,823)	(756,823)	(436,981)	(641,226)	(852,807)	(419,447)	(812,283)	(900,659)	(521,832)	(26,280)	(184,756)	(686,313)	(300,670)	(82,55)	(713,225
(757,447)	(757,447)	(714,575)	(408,227)	(49,134)	(546,392)	(110,311)	(165,163)	(378,837)	(314,549)	(653,485)	(281,209)	(476,593)	(366,411)	(421,609
(757,550)	(757,550)	(408,770)	(714,422)	(546,605)	(49,863)	(165,834)	(110,686)	(314,448)	(378,160)	(281,788)	(653,512)	(366,586)	(476,404)	(808,177
(758,3)	(758,3)	(291,773)	(300,670)	(748,522)	(755,301)	(934,548)	(327,343)	(532,508)	(761,925)	(100,4)	(866,792)	(630,721)	(436,981)	(302,602
(758 994)				(755,696)			(934,449)	(761,72)	(532 480)	(866 205)	(100,993)	(436,16)	(630,276)	(884 300
(759,13)									(639,210)					
	(759,13)	(195,288)										(705,343)		
(759,984)			(195,709)	(923,791)			(486,825)			(70,158)	(243,595)		(705,654)	
(760,403)	(760,403)	(104,241)	(594,460)	(980,785)	(819,596)			(431,83)	(940,981)	(542,247)	(421,609)	(661,466)	(249,254)	(209,506
(760,594)	(760,594)	(594,537)	(104,756)	(819,401)	(980,212)	(338,385)	(328,242)	(940,16)	(431,914)	(421,388)	(542,750)	(249,743)	(661,531)	(653,512
(761,72)	(761,72)	(94,402)	(517,787)	(6,182)	(835,956)	(395,185)	(4,699)	(296,146)	(758,994)	(198,501)	(604,511)	(879,952)	(350,824)	(774,699
(761,925)	(761,925)	(517,210)	(94,595)	(835,41)	(6,815)	(4,298)	(395,812)	(758,3)	(296,851)	(604,486)	(198,496)	(350,173)	(879,45)	(993,325
(762,9)	(762,9)	(102,948)		(937,159)	(86,833)	(319,611)	(28,5)		(716,744)			(131,903)	(850,197)	
		(738,803)		(86,164)	(937,838)				(214,489)					(359,471
(765,115)		(545,444)		(253,451)					(398,930)				(75,205)	(925,717
(765,882)	(765,882)	(661,466)	(545,553)	(418,473)	(253,546)	(245,345)	(967,197)	(398,67)	(862,962)	(166,678)	(478,514)	(75.792)	(594,460)	(856,321
(766,39)	(766,39)	(250,482)	(520,987)	(59,2)	(577,810)	(975,773)	(80,373)	(263,247)	(251,489)	(630,276)	(786,531)	(100,993)	(311,499)	(194,804
(766,958)	(766,958)	(520,10)	(250,515)	(577,187)	(59,995)	(80,624)	(975,224)	(251,508)	(263,750)	(786,466)	(630,721)	(311,498)	(100,4)	(114,994
(768,487)	(768,487)	(284,537)	(892,284)	(428,93)	(895,587)	(551,292)	(596,504)	(166,678)	(993,672)	(322,244)	(862,962)	(137,842)	(949,584)	(296,146
				(895,410)					(166,319)	(862,35)		(949,413)	(137,155)	(354,159
	(769,483)			(984,260)		(476,593)				(223,672)	(708,884)		(165,163)	(34,586)
(769,514)	(769,514)		(746,845)				(476,404)	(452,596)	(411,611)	(708,113)			(465,845)	(718,824
(771,155)	(771,155)	(198,496)	(362,837)	(501,403)	(895,410)	(524,282)	(440,185)	(384,938)	(392,624)	(94,595)	(74,188)	(484,187)	(225,486)	(615,832
(771 8 42)	(771,842)	(362,160)	(198,501)	(895,587)	(501,594)	(440,812)	(524,715)	(392,373)	(384,59)	(74,809)	(94,402)	(225,511)	(484,810)	(289,272
(//1,042/					(==C =+O)	(009 100)	(700 000)	(460 040)	(626.701)	(175 526)	(516 047)	(800 606)	(010 550)	(084727
	(772,293)	(826,498)	(147,852)	(34,411)	(776,218)	(900,109)	(/20,200)	(102,012)	(030,/91/	(1/5,520)	(510,94//	(009,000)	(818,550)	1904,/3/
(772,293)		(826,498) (147,145)								(516,50)			(809,391)	
(772,293)						(720,797)						(818,447)		

						Elliptic	Curves ove	er Finite Fi	eias					
(773,282)	(773,282)	(222,164)	(120,725)	(877,113)	(344,988)	(303,554)	(724,174)	(195,709)	(922,94)	(921,743)	(610,836)	(227,702)	(131,903)	(904,771
(773,715)	(773,715)	(120,272)	(222,833)	(344,9)	(877,884)	(724,823)	(303,443)	(922,903)	(195,288)	(610,161)	(921,254)	(131,94)	(227,295)	(363,584
(774,298)	(774,298)	(295,656)	(947,656)	(219,699)	(82,942)	(303,443)	(638,784)	(884,688)	(272,449)	(8,705)	(616,740)	(182,753)	(419,550)	(761,925
(774,699)	(774,699)	(947,341)	(295,341)	(82,55)	(219,298)	(638,213)	(303,554)	(272,548)	(884,309)	(616,257)	(8,292)	(419,447)	(182,244)	(882,665
(776,218)	(776,218)	(798,252)	(939,448)	(772,293)	(338,612)	(980,785)	(166,319)	(596,493)	(345,709)	(967,800)	(809,391)	(516,50)	(618,16)	(942,518
(776,779)	(776,779)	(939,549)	(798,745)	(338,385)	(772,704)	(166,678)			(596,504)			(618,981)	(516,947)	
(778,325)	(778,325)	(133,157)	(440,812)	(588,725)	(56,792)	(314,448)	_		(110,686)			_		(226,888
(778,672)		(440,185)		(56,205)	(588,272)	(362,837)	(314,549)	(110,311)	(482,392)	(259,115)	(293,233)	(612,218)	(549,516)	
(780,77)	(780,77)			(214,489)	(209,506)				(806,984)		(175,526)	(567,688)	(724,174)	(947,656
		(882,332)	(334,453) (882,665)				(942,518)							
	(780,920)			0.10		(942,479)	(227,295)	(806,13)	(937,159)		(140,684)		(567,309)	
(781,170)	(781,170)	(244,67)	(980,212)			(939,549)	(361,188)	(70,839)	(87,59)	(639,210)	(37,788)	(142,337)	(418,524)	(298,35)
(781,827)	(781,827)	(980,785)	(244,930)	(468,147)	(594,460)	(361,809)	(939,448)	(87,938)	(70,158)	(37,209)		(418,473)	(142,660)	(334,453
(783,152)	(783,152)	(525,624)	(497,223)	(350,824)	(537,200)	(173,475)	(611,602)	(901,51)	(589,714)	(728,224)	(210,696)	(835,956)	(932,332)	(799,521
(783,845)	(783,845)	(497,774)	(525,373)	(537,797)	(350,173)	(611,395)	(173,522)	(589,283)	(901,946)	(210,301)	(728,773)	(932,665)	(835,41)	(192,750
(784,406)	(784,406)	(384,938)	(941,903)	(121,284)	(812,714)	(419,550)	(110,311)	(562,188)	(362,837)	(119,460)	(814,785)	(638,784)	(850,800)	(502,93)
(784,591)	(784,591)	(941,94)	(384,59)	(812,283)	(121,713)	(110,686)	(419,447)	(362,160)	(562,809)	(814,212)	(119,537)	(850,197)	(638,213)	(573,575
(785,190)	(785,190)	(424,789)	(660,595)	(956,223)	(302,602)	(398,930)	(606,218)	(245,652)	(432,648)	(597,586)	(829,704)	(126,524)	(242,769)	(875,252
(785,807)	(785,807)	(660,402)	(424,208)	(302,395)	(956,774)	(606,779)	(398,67)	(432,349)	(245,345)	(829,293)	(597,411)	(242,228)	(126,473)	(748,475
(786,466)	(786,466)	(413,192)	(189,806)	(87,59)	(601,546)	(521,832)	(28,992)	(468,850)	(900,659)	(178,444)	(766,958)	(321,252)	(111,724)	(839,544
(786,531)	(786,531)	(189,191)	(413,805)	(601,451)	(87,938)	(28,5)	(521,165)	(900,338)	(468,147)	(766,39)	(178,553)	(111,273)	(321,745)	(102,49)
(787,228)	(787,228)		(720,797)	(736,795)	(153,804)	(724,174)	(147,145)		(200,212)	(526,59)	(841,349)	(942,518)	(111,273)	(941,903
(787,769)		(720,200)		(153,193)	(736,202)	(147,852)	(724,823)	(200,785)			(526,938)		(942,479)	(618,981
(788,449)			0,0.0,0	(272,449)	(511,391)	(111,273)	(193,703)	(82,942)	(788,548)		(668,662)	(147,145)	(521,165)	(365,233
				(511,606)			(111,724)	(788,449)	(82,55)	(668,335)	(798,745)	(521,832)		
(788,548)				-	(272,548)	(193,294)							(147,852)	(370,177
(794,49)	(794,49)	(860,888)			(300,327)	(321,252)	(850,800)	(343,839)	(597,411)	(432,349)	(312,840)		(28,992)	(983,412
(794,948)				(300,670)		(850,197)	(321,745)	(597,586)	(343,158)	(312,157)	(432,648)	(28,5)	(419,447)	(449,771
(798,252)	(798,252)	(716,744)	(776,218)			(100,993)	(965,228)		(668,335)		(788,449)		(80,373)	(36,260)
(798,745)	(798,745)	(776,779)	(716,253)	(962,343)	(826,499)	(965,769)	(100,4)		(738,803)	(788,548)			(733,594)	(463,526
(799,476)	(799,476)	(185,227)	(962,654)	(716,744)	(182,753)	(483,828)	(361,809)	(86,833)	(205,371)	(417,83)	(168,511)	(615,832)	(219,699)	(783,845
(799,521)	(799,521)	(962,343)	(185,770)	(182,244)	(716,253)	(361,188)	(483,169)	(205,626)	(86,164)	(168,486)	(417,914)	(219,298)	(615,165)	(225,511)
(801,238)	(801,238)	(877,884)	(114,3)	(222,833)	(858,832)	(707,575)	(109,485)	(459,668)	(923,206)	(339,764)	(274,553)	(741,448)	(858,165)	(250,482
(801,759)	(801,759)	(114,994)	(877,113)	(858,165)	(222,164)	(109,512)	(707,422)	(923,791)	(459,329)	(274,444)	(339,233)	(858,832)	(741,549)	(443,604
(806,13)	(806,13)	(827,815)	(337,871)	(549,516)	(682,413)	(567,688)	(493,244)	(728,773)	(780,920)	(901,946)	(89,842)	(588,272)	(942,518)	(382,593
(806,984)	(806,984)	(337,126)	(827,182)	(682,584)	(549,481)	(493,753)	(567,309)	(780,77)	(728,224)	(89,155)	(901,51)	(942,479)	(588,725)	(516,947
(808,177)	(808,177)	(468,147)	(705,654)	(522,834)	(244,930)	(965,228)	(271,721)	(413,805)	(364,872)	(393,293)	(725,506)	(519,482)	(254,851)	(254,146
(808,820)	(808,820)	(705.343)					(965,769)	(364,125)			(393,704)			
	(809,391)				(856,676)		(93,588)		(543,688)			(772,704)		
	(809,606)					(93,409)	(99,15)			(50,345)		(226,109)		
	(812,283)													
				(547,466)		(479,89)	(756,823)		(660,402)					<u> </u>
(812,714)				(784,406)		(756,174)			(200,785)			(429,13)		(854,996
(814,212)		(411,611)	(215,295)			(644,125)	(307,551)	(746,845)		(433,5)		(489,571)		(407,4)
	(814,785)	(215,702)	(411,386)		(252,572)	(307,446)	(644,872)	(981,284)		(784,406)	(433,992)	(428,904)	(489,426)	(40,925)
(816,177)	(816,177)	(61,612)	(843,724)	(859,32)	(681,662)	(593,714)	(987,2)	(27,194)	(602,41)	(84,395)	(904,226)	(902,902)	(83,446)	(610,161
(816,820)	(816,820)	(843,273)	(61,385)	(681,335)	(859,965)	(987,995)	(593,283)	(602,956)	(27,803)	(904,771)	(84,602)	(83,551)	(902,95)	(953,329
(818,447)	(818,447)	(570,476)	(242,769)	(618,981)	(283,208)	(403,225)	(703,159)	(409,884)	(160,406)	(78,827)	(828,147)	(424,789)	(772,704)	(389,836
(818,550)	(818,550)	(242,228)	(570,521)	(283,789)	(618,16)	(703,838)	(403,772)	(160,591)	(409,113)	(828,850)	(78,170)	(772,293)	(424,208)	(736,795
(819,401)	(819,401)	(89,842)	(171,313)	(463,526)	(760,594)	(668,335)	(364,872)	(965,228)	(884,688)	(337,871)	(111,724)	(178,444)	(841,648)	(532,508
(819,596)	(819,596)	(171,684)	(89,155)	(760,403)	(463,471)	(364,125)	(668,662)	(884,309)	(965,769)	(111,273)	(337,126)	(841,349)	(178,553)	(826,498
(820,145)	(820,145)	(922,903)	(126,524)	(839,544)	(459,668)	(721,349)	(948,2)	(382,404)	(222,833)	(43,273)	(192,247)	(236,759)	(424,789)	(728,224
(820,852)	(820,852)	(126,473)	(922,94)				(721,648)	(222,164)	(382,593)		(43,724)		(236,238)	
	(821,453)	(536,5)					(856,321)	(748,475)			(650,193)			
	(821,544)			(93,588)							(714,422)			
					(949,584)			(37,209)	(101,49)	(298,35)	(70,158)	(428,93)	(457,288)	
	(822,784)							(101,948)						
							(682,584)		(37,788)		(298,962)			
	(823,479)			(80,373)	(947,656)	(577,810)	(74,188)	(359,471)						
	(823,518)				(80,624)	(74,809)			(359,526)					
	(824,254)				(995,161)	(314,549)	(674,606)		(517,787)			(452,401)	(46,717)	(134,321)
(824,743)	(824,743)	(210,301)				(674,391)	(314,448)	(517,210)	(165,834)	(229,479)	(525,373)	(46,280)	(452,596)	(892,713
(825,257)	(825,257)	(293,764)	(142,337)	(438,292)	(254,146)	(435,206)	(74,809)	(355,67)	(857,498)	(671,493)	(440,812)	(896,410)	(244,67)	(938,863
(825,740)	(825,740)	(142,660)	(293,233)	(254,851)	(438,705)	(74,188)	(435,791)	(857,499)	(355,930)	(440,185)	(671,504)	(244,930)	(896,587)	(522,163
(826,498)	(826,498)	(489,426)	(772,293)	(209,506)	(798,252)	(378,837)	(878,772)	(8,705)	(165,163)	(7,676)	(272,449)	(411,386)	(242,228)	(752,341
(826,499)	(826,499)	(772,704)	(489,571)	(798,745)	(209,491)	(878,225)	(378,160)	(165,834)	(8,292)	(272,548)	(7,321)	(242,769)	(411,611)	(819,401
1														
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						Elliptic	Curves ove	er Finite Fi	eias					
(827,182)	(827,182)	(806,984)	(657,755)	(388,443)	(534,213)	(164,815)	(726,946)	(334,453)	(368,609)	(107,543)	(174,510)	(36,737)	(297,660)	(733,594
(827,815)	(827,815)	(657,242)	(806,13)	(534,784)	(388,554)	(726,51)	(164,182)	(368,388)	(334,544)	(174,487)	(107,454)	(297,337)	(36,260)	(70,839)
(828,147)	(828,147)	(348,686)	(102,948)	(473,670)	(355,930)	(841,648)	(610,161)	(254,851)	(562,188)	(818,447)	(724,823)	(364,872)	(175,471)	(413,192
	(828,850)		(348,311)	(355,67)	(473,327)	(610,836)		(562,809)			(818,550)		(364,125)	(593,283
		, ,	(364,125)	(63,506)	(741,448)		(171,684)	(236,759)		(449,226)		(102,49)	(222,833)	(312,840
		(131,94)				(449,771)	-							
		(364,872)	(131,903)	(741,549)	(63,491)	(171,313)	(449,226)	(705,654)		(785,190)	(449,771)		(102,948)	(321,252
(831,77)	(831,77)	(37,209)	(612,218)	(393,293)	(235,485)	(484,187)	(257,160)	(249,254)		(919,32)		(940,981)		(778,325
(831,920)	(831,920)	(612,779)	(37,788)	(235,512)	(393,704)	(257,837)	(484,810)	(625,476)	(249,743)	(244,67)	(919,965)	(440,812)	(940,16)	(838,787
(834,35)	(834,35)	(602,41)	(636,206)	(182,753)	(40,925)	(427,496)	(196,72)	(843,724)	(147,145)	(98,45)	(174,487)	(354,159)	(82,942)	(243,402
(834,962)	(834,962)	(636,791)	(602,956)	(40,72)	(182,244)	(196,925)	(427,501)	(147,852)	(843,273)	(174,510)	(98,952)	(82,55)	(354,838)	(137,842
(835,41)	(835,41)	(303,554)	(541,223)	(77,604)	(761,925)	(295,341)	(120,725)	(748,522)	(927,805)	(983,585)	(367,51)	(783,845)	(55,487)	(432,648
(835,956)	(835,956)	(541,774)	(303,443)	(761,72)	(77,393)	(120,272)	(295,656)	(927,192)	(748,475)	(367,946)	(983,412)	(55,510)	(783,152)	(219,298
(836,425)	(836,425)	(708,113)	(284,537)	(226,888)	(663,249)	(959,148)	(836,572)	(966,605)	(433,5)	(842,795)	(746,845)	(856,676)	(821,453)	(75,205)
(836,572)	(836,572)	(284,460)	(708,884)	(663,748)	(226,109)	(836,425)	(959,849)	(433,992)	(966,392)	(746,152)	(842,202)	(821,544)	(856,321)	(56,205)
(838,210)	(838,210)	(822,784)	(532,508)	(281,788)	(164,815)	(729,412)	(388,443)	(43.724)	(291,773)	(382,593)	(49,863)	(903,126)	(266,543)	(831,77)
(838,787)	(838,787)	(532,489)	(822,213)	(164,182)	(281,209)	(388,554)	(729,585)	(291,224)	(43,273)	(49,134)	(382,404)	(266,454)	(903,871)	(89,155)
			(314,448)	(820,852)	(955,294)	(210,301)	(133,157)	(32,696)	(408,770)	(114,3)	(173,522)	(514,823)	(888,9)	(786,531
			(274,444)		(820,145)	(133,840)	(210,696)	(408,227)	(32,301)	(173,475)		(888,988)	_	(186,982
	(840,285)	(417,914)	(953,329)	(981,713)	(241,828)	(397,481)	(203,410)		(482,605)			(558,660)		(879,952
(840,712)		(953,668)	(417,83)	(241,169)	(981,284)	(203,587)	(397,516)	(482,392)	(137,155)	(139,404)	(185,227)	(993,325)	(558,337)	(843,724
(841,349)	(841,349)	(407,993)	(253,546)	(661,466)	(75,205)	(828,850)	(490,993)	(67,93)	(718,173)	(787,228)	(403,772)		(819,596)	(411,386
	(841,648)	(253,451)	(407,4)	(75,792)	(661,531)	(490,4)	(828,147)	(718,824)	(67,904)	(403,225)	(787,769)	(819,401)	(253,546)	(226,109
(842,202)		(476,404)		(737,200)	(618,981)	(746,845)	(249,743)	(257,837)	(307,551)	(836,572)	(555,702)	(714,422)	(338,385)	(453,524
(842,795)	(842,795)	(823,479)	(476,593)	(618,16)	(737,797)	(249,254)	(746,152)	(307,446)	(257,160)	(555,295)	(836,425)	(338,612)	(714,575)	(153,804
(843,273)	(843,273)	(210,696)	(816,820)	(754,126)	(125,994)	(274,444)	(307,446)	(834,962)	(249,254)	(497,223)	(707,422)	(431,83)	(311,498)	(840,285
(843,724)	(843,724)	(816,177)	(210,301)	(125,3)	(754,871)	(307,551)	(274,553)	(249,743)	(834,35)	(707,575)	(497,774)	(311,499)	(431,914)	(970,882
(846,294)	(846,294)	(109,485)	(293,764)	(178,553)	(214,489)	(114,3)	(769,514)	(86,164)	(639,787)	(87,938)	(133,157)	(463,471)	(405,571)	(80,373)
(846,703)	(846,703)	(293,233)	(109,512)	(214,508)	(178,444)	(769,483)	(114,994)	(639,210)	(86,833)	(133,840)	(87,59)	(405,426)	(463,526)	(224,327
(850,197)	(850,197)	(7,321)	(686,684)	(471,796)	(674,606)	(665,39)	(794,948)	(613,201)	(3,942)	(489,571)	(641,771)	(762,9)	(784,591)	(698,147
(850,800)	(850,800)	(686,313)	(7,676)	(674,391)	(471,201)	(794,49)	(665,958)	(3,55)	(613,796)	(641,226)	(489,426)	(784,406)	(762,988)	(920,10)
(852,190)	(852,190)	(33,902)	(966,605)	(756,174)	(77,604)	(614,319)	(547,531)	(704,541)	(708,113)	(359,471)	(452,596)	(229,479)	(138,170)	(181,191)
(852,807)	(852,807)	(966,392)	(33,95)	(77,393)	(756,823)	(547,466)	(614,678)	(708,884)	(704,456)	(452,401)	(359,526)	(138,827)	(229,518)	(974.737
(854,1)	(854,1)	(174,510)	(606,218)	(702,652)	(502,904)	(424,789)	(128,285)	(176,249)	(904,771)	(657,755)	(602,956)	(948,2)	(703,159)	(812,283
(854,996)	(854,996)	(606,779)	(174,487)	(502,93)	(702,345)	(128,712)	(424,208)	(904,226)	(176,748)	(602,41)	(657,242)	(703,838)	(948,995)	(195,288
(856,321)	(856,321)	(282,585)	(511,606)	(177,197)	(809,606)	(821,453)	(421,388)	(134,676)	(752,656)	(54,908)	(338,385)	(836,572)	(34,411)	(165,834
(856,676)	(856,676)	(511,391)	(282,412)	(809,391)	(177,800)	(421,609)	(821,544)	(752,341)	(134,321)	(338,612)	(54,89)	(34,586)	(836,425)	(765,115
(857,498)	(857,498)	(644,125)	(681,662)	(61,612)	(932,332)	(821,544)	(215,295)	(825,257)	(103,571)	(645,662)	(598,612)	(350,824)	(959,849)	(697,282
(857,499)	(857,499)	(681,335)	(644,872)	(932,665)	(61,385)	(215,702)	(821,453)	(103,426)	(825,740)	(598,385)	(645,335)	(959,148)	(350,173)	(383,77)
(858,165)	(858,165)	(101,49)	(993,325)	(158,249)	(801,759)	(986,872)	(357,190)	(625,521)	(892,713)	(563,958)	(921,743)	(801,238)	(953,668)	(902,902
(858.832)	(858,832)			(801,238)					(625,476)			(953,329)		
(859,32)	(859,32)	(464,89)	(125,3)	(76,522)	(816,177)	(526,938)								
	(859,965)					(921,743)			(389,161)					
	(860,109)			(119,460)		(686,684)						(892,713)		(602,41)
	(860,888)								(953,329)					
(862,35)	(862,35)					(219,699)								
		(363,413)												
	(862,962)			(638,213)					(689,164)				(361,188)	
	(866,205)													(12,755)
	(866,792)				(158,249)		(609,874)		(198,496)		(689,833)		(627,191)	(63,491)
(875,252)	(875,252)	(479,89)	(904,226)	(405,426)	(598,612)	(672,338)		(297,660)		(61,612)		(368,609)		(120,272
(875,745)	(875,745)	(904,771)		(598,385)		(432,648)	(672,659)	(606,218)		(321,745)	(61,385)	(178,553)	(368,388)	(785,807
(877,113)	(877,113)	(801,759)	(623,148)	(993,325)	(773,282)	(12,242)	(84,602)	(318,253)	(428,904)	(987,995)	(554,10)	(101,948)	(981,284)	(609,874
(877,884)	(877,884)	(623,849)	(801,238)	(773,715)	(993,672)	(84,395)	(12,755)	(428,93)	(318,744)	(554,987)	(987,2)	(981,713)	(101,49)	(6,182)
(878,225)	(878,225)	(720,797)	(416,202)	(965,769)	(478,514)	(522,163)	(826,499)	(463,471)	(20,45)	(418,473)	(365,764)	(422,659)	(639,787)	(668,335
(878,772)	(878,772)	(416,795)	(720,200)	(478,483)	(965,228)	(826,498)	(522,834)	(20,952)	(463,526)	(365,233)	(418,524)	(639,210)	(422,338)	(435,206
(879,45)	(879,45)	(483,169)	(26,280)	(55,487)	(128,712)	(185,770)	(502,93)	(436,981)	(552,840)	(55,510)	(203,410)	(761,925)	(983,412)	(840,712
(879,952)	(879,952)	(26,717)	(483,828)	(128,285)	(55,510)	(502,904)	(185,227)	(552,157)	(436,16)	(203,587)	(55,487)	(983,585)	(761,72)	(419,447
(882,332)	(882,332)	(641,226)	(780,77)	(986,125)	(691,123)	(158,748)	(36,260)	(8,292)	(337,126)	(884,309)	(7,676)	(726,51)	(194,804)	(774,298
(882,665)	(882,665)	(780,920)	(641,771)	(691,874)	(986,872)	(36,737)	(158,249)	(337,871)	(8,705)	(7,321)	(884,688)	(194,193)	(726,946)	(100,4)
(884,309)	(884,309)	(335,947)	(140,313)	(431,83)	(674,391)	(987,2)	(995,836)	(774,699)	(819,596)	(12,755)	(882,332)	(67,93)	(125,994)	(8,705)
	(884,688)			(674,606)		(995,161)	(987,995)		(774,298)	(882,665)	(12,242)	(125,3)	(67,904)	(758,3)
(888,9)	(888,9)	(921,743)	(615,832)	(236,238)	(554,10)		(464,908)	(63,491)	(322,753)			(839,453)		(321,745)
_	(888,988)	(615,165)		(554,987)		(464,89)	(983,412)	(322,244)	(63,506)			(185,770)		
. ,5 = 3,	. , 5 = 31	33/	5 .57	55 1.5-77	5 - 1, 55,	,,=5/	5 5.1/	5	3.5-27	, = ,	555.77=7	3., , -,	20.011	5 1.5 - 1
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			-		-	Elliptic	Curves ove	er Finite Fi	eias	-	-	-		
(892,284)	(892,284)	(768,487)	(28,992)	(459,668)	(20,45)	(413,192)	(738,803)	(965,769)	(858,832)	(429,984)	(363,584)	(860,888)	(923,791)	(824,254
(892,713)	(892,713)	(28,5)	(768,510)	(20,952)	(459,329)	(738,194)	(413,805)	(858,165)	(965,228)	(363,413)	(429,13)	(923,206)	(860,109)	(610,836
(895,410)	(895,410)	(20,952)	(200,785)	(771,155)	(768,510)	(162,812)	(297,337)	(432,648)	(720,200)	(343,158)	(404,227)	(519,515)	(726,51)	(697,715
(895,587)	(895,587)	(200,212)	(20,45)	(768,487)	(771,842)	(297,660)	(162,185)	(720,797)	(432,349)	(404,770)	(343,839)	(726,946)	(519,482)	(927,192
	(896,410)		(46,717)	(107,543)	(901,51)	(298,962)	(396,1)					(296,146)		
	(896,587)		(267,611)	(901,946)		(396,996)		(350,173)		(534,784)		(825,740)		(949,413
	(900,338)		(357,190)	(497,223)	(614,319)	(101,49)	(756,174)	(372,496)		(263,247)	(125,994)	(12,755)	(694,123)	(10,863)
					, ,								, ,	-
	(900,659)	(357,807)	(537,797)	(614,678)	(497,774)	(756,823)	(101,948)	(786,466)		(125,3)	(263,750)	(694,874)	(12,242)	(32,301)
(901,51)	(901,51)	(146,50)	(174,510)	(896,410)	(729,585)	(164,182)	(539,686)	(175,526)		(806,984)		(927,192)	(254,146)	(205,626
		(174,487)		(729,412)	(896,587)	(539,311)		(783,845)		(636,206)	_	(254,851)	(927,805)	(519,515
(902,95)	(902,95)	(311,498)	(243,402)	(443,393)	(180,332)	(562,188)	(378,837)	(610,161)	(110,311)	(310,834)		(816,820)	(250,515)	(858,832
	(902,902)		(311,499)	(180,665)	(443,604)	(378,160)	(562,809)	(110,686)	(610,836)	(195,709)	(310,163)	(250,482)	(816,177)	(602,956
(903,126)	(903,126)	(457,709)	(173,475)	(919,965)	(51,481)	(259,115)	(525,624)	(653,485)	(447,146)	(393,704)	(314,549)	(143,546)	(838,210)	(940,981
(903,871)	(903,871)	(173,522)	(457,288)	(51,516)	(919,32)	(525,373)	(259,882)	(447,851)	(653,512)	(314,448)	(393,293)	(838,787)	(143,451)	(389,161
(904,226)	(904,226)	(875,252)	(497,774)	(357,807)	(609,123)	(518,821)	(158,748)	(553,257)	(854,996)	(816,177)	(310,834)	(310,163)	(679,788)	(773,715
(904,771)	(904,771)	(497,223)	(875,745)	(609,874)	(357,190)	(158,249)	(518,176)	(854,1)	(553,740)	(310,163)	(816,820)	(679,209)	(310,834)	(660,402
(906,425)	(906,425)	(224,327)	(866,792)	(378,160)	(227,295)	(209,491)	(443,604)	(49,863)	(29,285)	(291,773)	(563,958)	(344,9)	(536,992)	(328,242
(906,572)	(906,572)	(866,205)	(224,670)	(227,702)	(378,837)	(443,393)	(209,506)	(29,712)	(49,134)	(563,39)	(291,224)	(536,5)	(344,988)	(109,485
(908,109)	(908,109)	(378,837)	(468,147)	(224,670)	(980,785)	(243,402)	(772,293)	(189,191)	(408,227)	(933,810)	(228,482)	(93,409)	(703,838)	(214,489
(908,888)	(908,888)	(468,850)	(378,160)	(980,212)	(224,327)	(772,704)	(243,595)	(408,770)	(189,806)	(228,515)	(933,187)	(703,159)	(93,588)	(196,925
(910,201)	(910,201)	(674,391)	(709,756)	(140,313)	(7,676)	(563,39)	(296,851)	(4.298)			(209,506)		(76,475)	(596,493
(910,796)				(7,321)	(140,684)	(296,146)	(563,958)	(267,611)	(4,699)		(986,872)	(76,522)	(396,1)	(542,750
(912,55)	(912,55)	(82,942)	(769,514)	(947,656)	(752,341)	(109,485)	(322,753)	(983,585)		(596,493)	(927,805)	,	(436,16)	(343,158
(912,942)	(912,942)	(769,483)	(82,55)	(752,656)	(947,341)	(322,244)		(809,606)			(596,504)		(636,791)	(209,491
										(366,411)				
(919,32)	(919,32)	(224,670)		(903,871)	(468,147)	(416,795)	(356,409)		(306,554)		(831,77)		(654,805)	
(919,965)	(919,965)	(522,163)	(224,327)	(468,850)	(903,126)	(356,588)	(416,202)		(601,546)		(366,586)		(281,788)	(382,404
(920,10)	(920,10)	(86,833)	(616,740)	(738,194)	(948,995)	(983,412)	(459,329)		(962,654)			(502,93)	(359,471)	(29,285)
(920,987)			(86,164)	(948,2)		(459,668)				(229,518)			(502,904)	
(921,254)				(339,764)	(987,2)	(859,32)	(431,83)	(429,984)				(660,402)		(29,712)
(921,743)	(921,743)	(126,524)	(888,9)	(987,995)	(339,233)	(431,914)	(859,965)	(328,242)	(429,13)	(858,165)	(773,282)	(274,553)	(660,595)	(310,163
(922,94)	(922,94)	(820,852)	(925,717)	(428,904)	(314,448)	(995,836)	(588,725)	(773,282)	(546,605)	(429,13)	(51,516)	(493,753)	(252,572)	(553,740
(922,903)		(925,280)	(820,145)	(314,549)	(428,93)	(588,272)	(995,161)	(546,392)	(773,715)	(51,481)	(429,984)	(252,425)	(493,244)	(545,553
(923,206)	(923,206)	(318,744)	(949,413)	(759,13)	(625,476)	(98,45)	(99,982)	(801,238)	(235,512)	(557,956)	(196,72)	(960,253)	(892,713)	(933,810
(923,791)	(923,791)	(949,584)	(318,253)	(625,521)	(759,984)	(99,15)	(98,952)	(235,485)	(801,759)	(196,925)	(557,41)	(892,284)	(960,744)	(46,717)
(925,280)	(925,280)	(78,170)	(922,903)	(744,996)	(266,454)	(297,337)	(927,192)	(672,659)	(120,272)	(570,521)	(322,244)	(733,594)	(164,182)	(765,882
(925,717)	(925,717)	(922,94)	(78,827)	(266,543)	(744,1)	(927,805)	(297,660)	(120,725)	(672,338)	(322,753)	(570,476)	(164,815)	(733,403)	(297,337
(926,173)	(926,173)	(139,593)	(714,575)	(956,774)	(518,176)	(609,874)	(396,996)	(181,806)	(658,456)	(953,329)	(536,5)	(823,479)	(563,39)	(704,456
(926,824)	(926,824)	(714,422)	(139,404)	(518,821)	(956,223)	(396,1)	(609,123)	(658,541)	(181,191)	(536,992)	(953,668)	(563,958)	(823,518)	(84,395)
(927,192)	(927,192)	(223,672)	(995,161)	(296,146)	(289,272)	(925,280)	(140,684)	(50,345)	(835,956)	(942,479)	(912,942)	(526,938)	(901,51)	(967,197
(927,805)	(927,805)	(995,836)	(223,325)	(289,725)	(296,851)	(140,313)	(925,717)	(835,41)	(50,652)	(912,55)	(942,518)	(901,946)	(526,59)	(895,410
(932,332)	(932,332)	(388,443)	(321,252)	(857,498)	(657,755)	(532,508)	(860,888)	(254,146)	(327,343)	(479,89)	(702,652)	(783,152)	(413,192)	(615,165
(932,665)	(932,665)	(321,745)	(388,554)	(657,242)	(857,499)	(860,109)	(532,489)	(327,654)	(254,851)	(702,345)	(479,908)	(413,805)	(783,845)	(364,125
(933,187)	(933,187)	(251,508)	(755,301)	(291,773)	(955,703)	(175,471)	(368,609)	(164,815)	(250,515)	(908,888)	(227,295)	(610,161)	(672,338)	(923,791
	(933,810)			(955,294)		(368,388)						(672,659)		
	(934,449)		(967,800)			(758,994)		(4,699)	(177,197)			(582,668)		
	(934,548)			(134,321)	(7,321)	(545,553)	(758,3)	(177,800)	(4,298)			(957,238)		(216,32)
(937,159)		(957,238)		(558,337)	(762,9)	(367,946)			(489,426)	(3,55)		(981,284)		
	(937,838)	(8,292)		(762,988)		(53,406)	(367,51)	(489,571)		(295,341)	(3,942)	(471,201)	(981,713)	
	(938,134)			(476,404)		(984,737)	(142,337)		(536,992)				(939,549)	
	(938,863)		(435,791)			(142,660)		(536,5)				(939,448)		(720,797
	(939,448)		(433,5)				(736,202)		(182,244)			(272,548)		
	(939,549)			(205,371)	(147,145)	(736,795)			(708,884)					
(940,16)	(940,16)	(361,809)	(650,804)	(965,228)	(382,593)	(962,654)	(244,930)	(459,329)	(760,594)	(484,187)	(281,788)	(831,920)	(74,188)	(903,871
(940,981)	(940,981)	(650,193)	(361,188)	(382,404)	(965,769)	(244,67)	(962,343)	(760,403)	(459,668)	(281,209)	(484,810)	(74,809)	(831,77)	(549,481
(941,94)	(941,94)	(50,652)	(784,591)	(582,329)	(396,1)	(107,543)	(518,821)	(223,325)	(10,863)	(411,611)	(726,946)	(7,321)	(404,770)	(787,769
(941,903)	(941,903)	(784,406)	(50,345)	(396,996)	(582,668)	(518,176)	(107,454)	(10,134)	(223,672)	(726,51)	(411,386)	(404,227)	(7,676)	(372,501
(942,479)	(942,479)	(403,772)	(36,737)	(478,514)	(984,260)	(570,521)	(780,920)	(567,688)	(367,946)	(253,546)	(927,192)	(787,769)	(806,984)	(776,779
(942,518)	(942,518)	(36,260)	(403,225)	(984,737)	(478,483)	(780,77)	(570,476)	(367,51)	(567,309)	(927,805)	(253,451)	(806,13)	(787,228)	(404,227
(943,176)	(943,176)	(243,402)	(965,228)	(416,795)	(361,809)	(716,744)	(468,147)	(28,5)	(89,842)	(728,773)	(519,515)	(725,491)	(343,158)	(43,724)
(943,821)	(943,821)	(965,769)	(243,595)	(361,188)	(416,202)	(468,850)	(716,253)	(89,155)	(28,992)	(519,482)	(728,224)	(343,839)	(725,506)	(636,791
(947,341)	(947,341)	(737,200)	(774,699)	(912,942)	(823,518)	(404,770)	(679,788)	(516,50)	(335,947)	(289,272)	(162,185)	(518,821)	(345,709)	(780,920
(947,656)	(947,656)	(774,298)	(737.797)	(823,479)	(912,55)	(679,209)	(404,227)	(335,50)	(516,947)	(162,812)	(289,725)	(345,288)	(518,176)	(94,595)
	•		-	•	•	•	•	-	•	•	•	•	•	•

Elliptic Curves over Finite Fields														
(948,2)	(948,2)	(995,161)	(125,994)	(210,696)	(920,987)	(820,145)	(335,50)	(345,709)	(679,209)	(537,200)	(747,483)	(335,947)	(854,1)	(471,796
(948,995)	(948,995)	(125,3)	(995,836)	(920,10)	(210,301)	(335,947)	(820,852)	(679,788)	(345,288)	(747,514)	(537.797)	(854,996)	(335,50)	(53,591)
(949,413)	(949,413)	(923,206)	(281,788)	(519,515)	(822,784)	(168,511)	(639,787)	(114,3)	(228,515)	(361,809)	(408,770)	(522,163)	(768,510)	(251,489
(949,584)	(949,584)	(281,209)	(923,791)	(822,213)	(519,482)	(639,210)	(168,486)	(228,482)	(114,994)	(408,227)	(361,188)	(768,487)	(522,834)	(896,410
(953,329)	(953,329)	(840,285)	(597,411)	(741,448)	(160,591)	(327,343)	(225,486)	(860,888)	(283,789)	(660,402)	(926,173)	(524,282)	(858,832)	(483,828
(953,668)	(953,668)	(597,586)	(840,712)	(160,406)	(741,549)	(225,511)	(327,654)	(283,208)	(860,109)	(926,824)	(660,595)	(858,165)	(524,715)	(816,177
(955,294)	(955,294)	(563,39)	(366,411)	(839,453)	(933,810)	(263,750)	(709,756)	(975,224)	(298,962)	(101,948)	(224,670)	(714,575)	(554,10)	(87,938)
(955,703)	(955,703)	(366,586)	(563,958)	(933,187)	(839,544)	(709,241)	(263,247)	(298,35)	(975,773)	(224,327)	(101,49)	(554,987)	(714,422)	(759,984
(956,223)	(956,223)	(514,174)	(562,188)	(926,824)	(785,190)	(539,686)	(311,498)	(348,686)	(384,938)	(30,145)	(741,549)	(274,444)	(80,624)	(405,426
(956,774)	(956,774)	(562,809)	(514,823)	(785,807)	(926,173)	(311,499)	(539,311)	(384,59)	(348,311)	(741,448)	(30,852)	(80,373)	(274,553)	(698,85c
(957,238)	(957,238)	(473,670)	(937,159)	(524,715)	(102,948)	(501,594)	(630,721)	(334,544)	(290,208)	(80,624)	(713,225)	(741,549)	(934,548)	(87,59)
(957,759)	(957,759)	(937,838)	(473,327)	(102,49)	(524,282)	(630,276)	(501,403)	(290,789)	(334,453)	(713,772)	(80,373)	(934,449)	(741,448)	(184,241
(959,148)	(959,148)	(87,938)	(671,493)	(413,805)	(721,648)	(459,329)	(836,425)	(707,422)	(244,930)	(249,254)	(293,764)	(421,609)	(857,499)	(473,327
(959,849)	(959,849)	(671,504)	(87,59)	(721,349)	(413,192)	(836,572)	(459,668)	(244,67)	(707,575)	(293,233)	(249,743)	(857,498)	(421,388)	(366,586
(960,253)	(960,253)	(724,174)	(522,163)	(705,343)	(283,789)	(120,725)	(720,797)	(741,448)	(297,660)	(464,908)	(348,311)	(334,453)	(923,206)	(672,659
(960,744)	(960,744)	(522,834)	(724,823)	(283,208)	(705,654)	(720,200)	(120,272)	(297,337)	(741,549)	(348,686)	(464,89)	(923,791)	(334,544)	(142,337
(962,343)	(962,343)	(338,385)	(799,521)	(345,709)	(798,745)	(940,981)	(104,756)	(338,612)	(920,987)	(511,606)	(134,321)	(823,518)	(257,160)	(613,201
(962,654)	(962,654)	(799,476)	(338,612)	(798,252)	(345,288)	(104,241)	(940,16)	(920,10)	(338,385)	(134,676)	(511,391)	(257,837)	(823,479)	(525,373
(965,228)	(965,228)	(943,176)	(166,319)	(878,772)	(940,16)	(798,252)	(808,177)	(892,713)	(819,401)	(545,444)	(193,703)	(235,512)	(718,824)	(51,516)
(965,769)	(965,769)	(166,678)	(943,821)	(940,981)	(878,225)	(808,820)	(798,745)	(819,596)	(892,284)	(193,294)	(545,553)	(718,173)	(235,485)	(165,163
(966,392)	(966,392)	(736,202)	(852,807)	(573,575)	(436,981)	(433,5)	(707,575)	(836,572)	(55,487)	(552,157)	(307,551)	(748,522)	(752,656)	(242,769
(966,605)	(966,605)	(852,190)	(736,795)	(436,16)	(573,422)	(707,422)	(433,992)	(55,510)	(836,425)	(307,446)	(552,840)	(752,341)	(748,475)	(121,284)
(967,197)	(967,197)	(723,596)	(934,548)	(272,548)	(175,471)	(765,882)	(291,773)	(729,412)	(219,298)	(776,779)	(209,491)	(473,670)	(205,626)	(421,388
(967,800)	(967,800)	(934,449)	(723,401)	(175,526)	(272,449)	(291,224)	(765,115)	(219,699)	(729,585)	(209,506)	(776,218)	(205,371)	(473,327)	(927,805
(970,115)	(970,115)	(28,992)	(610,836)	(339,233)	(630,276)	(189,806)	(102,49)	(243,595)	(43,724)	(222,164)	(59,2)	(755,696)	(449,771)	(843,273
(970,882)	(970,882)	(610,161)	(28,5)	(630,721)	(339,764)	(102,948)	(189,191)	(43,273)	(243,402)	(59,995)	(222,833)	(449,226)	(755,301)	(28,992)
(974,260)	(974,260)	(4,298)	(242,228)	(713,772)	(3,942)	(975,224)	(94,595)	(471,796)	(709,756)	(762,988)	(524,282)	(489,426)	(660,402)	(852,190
(974.737)	(974.737)	(242,769)	(4,699)	(3,55)	(713,225)	(94,402)	(975,773)	(709,241)	(471,201)	(524,715)	(762,9)	(660,595)	(489,571)	(679,788
(975,224)	(975,224)	(363,584)	(59,2)	(32,696)	(250,482)	(766,958)	(974,260)	(728,224)	(955,294)	(28,992)	(589,714)	(312,840)	(180,665)	(614,319
(975,773)	(975,773)	(59,995)	(363,413)	(250,515)	(32,301)	(974,737)	(766,39)	(955,703)	(728,773)	(589,283)	(28,5)	(180,332)	(312,157)	(222,164
(980,212)	(980,212)	(781,170)	(100,4)	(760,594)	(908,888)	(776,779)	(557,41)	(382,593)	(273,828)	(99,15)	(291,773)	(520,10)	(96,276)	(306,554
(980,785)	(980,785)	(100,993)	(781,827)	(908,109)	(760,403)	(557,956)	(776,218)	(273,169)	(382,404)	(291,224)	(99,982)	(96,721)	(520,987)	(780,77)
(981,284)	(981,284)	(741,549)	(486,172)	(840,712)	(131,903)	(427,501)	(195,288)	(724,823)	(814,785)	(562,188)	(584,158)	(877,113)	(937,159)	(754,871
(981,713)	(981,713)	(486,825)	(741,448)	(131,94)	(840,285)	(195,709)	(427,496)	(814,212)	(724,174)	(584,839)	(562,809)	(937,838)	(877,884)	(128,285
(983,412)	(983,412)	(452,401)	(431,83)	(604,511)	(335,947)	(888,988)	(920,10)	(912,942)	(104,241)	(835,956)	(33,95)	(879,45)	(210,696)	(558,337
(983,585)	(983,585)	(431,914)	(452,596)	(335,50)	(604,486)	(920,987)	(888,9)	(104,756)	(912,55)	(33,902)	(835,41)	(210,301)	(879,952)	(794,948
(984,260)	(984,260)	(217,319)	(752,656)	(942,479)	(769,483)	(938,863)	(214,508)	(282,585)	(319,611)	(412,849)	(289,272)	(736,202)	(549,481)	(772,704
(984,737)	(984,737)	(752,341)	(217,678)	(769,514)	(942,518)	(214,489)	(938,134)	(319,386)	(282,412)	(289,725)	(412,148)	(549,516)	(736,795)	(74,188)
(986,125)	(986,125)	(33,95)	(214,489)	(109,485)	(882,332)	(858,832)	(752,341)	(738,803)	(421,609)	(431,83)	(910,201)	(225,486)	(707,422)	(219,699
(986,872)	(986,872)	(214,508)	(33,902)	(882,665)	(109,512)	(752,656)	(858,165)	(421,388)	(738,194)	(910,796)	(431,914)	(707,575)	(225,511)	(378,160
(987,2)	(987,2)	(236,759)	(274,553)	(921,254)	(689,164)	(816,177)	(884,309)	(638,213)	(364,125)	(877,884)	(158,748)	(562,809)	(126,524)	(323,172
(987,995)	(987,995)			(689,833)	(921,743)	(884,688)	(816,820)	(364,872)	(638,784)	(158,249)	(877,113)	(126,473)	(562,188)	(327,343
(993,325)	(993,325)	(858,165)	(547,531)	(432,648)	(877,113)	(33,902)	(405,571)	(302,602)	(768,510)	(689,833)	(888,9)	(114,3)	(840,712)	(311,499
(993,672)	(993,672)	(547,466)	(858,832)	(877,884)	(432,349)	(405,426)	(33,95)	(768,487)	(302,395)	(888,988)	(689,164)	(840,285)	(114,994)	(761,72)
(995,161)	(995,161)	(927,192)	(948,2)	(824,254)	(616,257)	(922,903)	(884,688)	(668,335)	(303,443)	(36,737)	(82,55)	(184,756)	(174,510)	(934,548
(995,836)	(995,836)	(948,995)	(927,805)	(616,740)	(824,743)	(884,309)	(922,94)	(303,554)	(668,662)	(82,942)	(36,260)	(174,487)	(184,241)	(20,952)
											<u> </u>			

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