

Supplement to
ON A CLASS OF ELLIPTIC CURVES WITH RANK AT MOST 2

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We list below data for the elliptic curve

$$C_p : y^2 = x^3 + px$$

for each 'G-prime' p less than 50000. We give, for each curve in this range, the value of the L -function at 1 and the order S of the Shafarevich-Tate group III as predicted by the Birch and Swinnerton-Dyer conjecture, if the rank is zero. If the rank = 2, we give the two values of r and s from which the generators of the Mordell-Weil group can easily be constructed using (6), and the value of $\tau = \omega_2/\omega_1$ of the Mordell-Weil lattice, where $a + ib$ is written a, b (see last paragraph).

<i>Prime</i>	<i>Rank</i>	<i>1 point, rank 2 only</i>	<i>11 point, rank 2 only</i>	τ
73	2	1, 1	3, 1	-0.42136, 3.70975
89	2	3, 1	7, 1	0.25820, 4.79915
113	2	3, 1	5, 1	0.41331, 4.48636
233	2	11, 3	5, 1	0.48210, 3.58534
257	0	$L(1) = 7.40907, S = 16$		
281	2	3, 1	47, 7	-0.22809, 11.81452
337	2	35, 9	5, 1	-0.05956, 6.23399
353	2	13, 3	7, 1	-0.44182, 4.20334
577	0	$L(1) = 6.05276, S = 16$		
593	2	3, 1	5, 1	0.48071, 5.03903
601	2	83, 17	7, 1	-0.33842, 5.45261
617	2	195, 43	5, 1	-0.19632, 5.61055
881	2	3, 1	157, 17	-0.48756, 18.15133
937	2	5, 3	45, 7	-0.42973, 11.62307
1033	2	13, 3	85, 7	0.06569, 7.58315
1049	2	3, 1	7, 1	-0.49569, 5.99058
1097	0	$L(1) = 5.15461, S = 16$		
1153	2	1, 1	9, 1	-0.40743, 6.18935
1193	2	47, 9	11, 1	0.45560, 4.46677
1201	0	$L(1) = 5.03920, S = 16$		
1217	0	$L(1) = 5.02255, S = 16$		
1249	2	11, 3	7, 1	-0.49338, 4.91196

Prime	Rank	I point, rank 2 only	II point, rank 2 only	τ
1289	2	41, 9	19, 1	-0.37828, 5.10380
1433	2	3, 1	7, 1	-0.48472, 8.85549
1481	0			
1553	2	15, 11	59, 7	0.25107, 6.90827
1601	2	117, 19	7, 1	0.15524, 7.21936
1609	2	19, 3	29, 1	0.00547, 12.81853
1721	0			
1753	2	5, 9	7, 1	0.48984, 3.97054
1777	2	5, 1	525, 73	0.47957, 22.98789
1801	2	1, 1	547, 79	0.19453, 24.89577
1889	2	51, 11	7, 1	0.31093, 6.09387
1913	2	57, 11	17, 1	-0.40965, 4.87389
2089	2	11, 3	53, 1	-0.18042, 7.41783
2113	2	5, 3	7, 1	0.48143, 5.10477
2129	2	3, 1	157, 7	-0.13885, 19.47539
2273	2	19, 3	7, 1	-0.49565, 4.81242
2281	2	299, 67	21, 1	-0.43435, 7.01621
2393	2	3, 1	7, 1	0.46625, 6.20771
2441	0			
2473	2	7, 1	11, 1	-0.15226, 9.04684
2593	2	1, 1	73, 1	0.35189, 13.45925
2657	0			
2689	2	7, 1	9, 1	-0.11393, 8.47626
2833	0			
2857	0			
3049	2	7, 1	27, 1	-0.24301, 7.99620
3089	2	7, 3	11, 1	-0.45345, 5.72969
3121	0			
3137	2	5, 3	815, 103	-0.48132, 23.58055
3217	2	5, 1	1942845, 57097	-0.01031, 49.37582
3257	2	125, 57	815, 1	0.25650, 13.05028
3313	2	17, 3	19, 1	-0.37758, 6.48209
3361	2	121, 17	9, 1	0.34645, 6.29887
3449	0			
3529	2	1, 1	2683, 343	0.40631, 30.32619
3673	2	23, 3	9, 1	0.06481, 8.59214
3761	0			
3833	2	1, 3	73, 7	-0.15485, 8.36706
4019	2	93, 41	61, 7	-0.33022, 6.24137
4057	0			
4153	2	5, 1	31, 1	0.07976, 13.05205
4177	0			
4201	2	7, 1	1587, 41	0.25118, 28.30657
4217	0			
4273	2	1, 3	11, 1	-0.47627, 6.00761
4289	2	71, 9	193, 23	0.13383, 8.16403
4297	0			
4409	0			
4457	2	265, 33	4075, 479	-0.08955, 14.66498
4481	2	257, 33	9, 1	0.27654, 6.98405
4513	2			
4657	0			
4721	0			
4801	2	67, 19	1951, 49	-0.41475, 22.89767
4817	0			
4937	0			
4993	2	7, 1	9, 1	-0.49061, 6.71078
5081	2	3, 1	1367, 161	0.10623, 22.52430
5113	2	25, 11	17, 1	0.27147, 9.55796
5209	2	7, 3	9, 1	-0.47884, 5.90205
5233	2	5, 1	13, 1	0.45984, 7.52959
5297	2			
5393	2	25, 3	11, 1	-0.47410, 5.77620
5569	0			
5689	2	67, 41	63, 1	0.34332, 6.04763
5737	0			
5881	2	77, 9	991, 79	-0.16976, 26.78138
6089	2	13, 3	13, 1	-0.11486, 9.76499
6121	0			
6353	2	3, 1	9, 1	0.26843, 8.49113
6361	2	1471, 331	9, 1	0.14577, 8.11163
6449	2	457, 51	11, 1	0.37794, 5.89638
6481	0			
6521	0			
6529	2	1, 9	9, 1	-0.14390, 8.43804
6533	2	7, 3	9, 1	-0.47486, 5.95883
6569	2	9, 1	443, 49	0.17493, 24.10072
6689	2	9, 1	17, 1	0.23056, 10.40718
6761	2	9, 1	491, 1	0.48516, 22.01904
6793	0			
6841	0			
6857	0			
7121	0			
7129	0			
7199	2	19, 3	207, 7	0.06794, 9.45031
7393	2	43, 33	71, 7	0.37980, 13.75473
7481	2	19, 3	71, 1	0.47916, 12.84974
7489	2	9, 1	43, 1	0.41539, 12.85986
7529	2	25, 3	985, 31	-0.07503, 15.64933
7577	2	215, 27	13, 1	-0.25735, 8.50790
7753	2			
7793	0			
7817	0			

Prime	Rank	I point, rank 2 only	II point, rank 2 only	III point, rank 2 only	T
7841	0		$L(1) = 3.15249, S = 16$		T
7993	2	29, 9	15, 1	0.47413, 5.70663	
8081	0		$L(1) = 3.12882, S = 16$		
8161	0		$L(1) = 3.12113, S = 16$		
8209	2	13, 9	69, 7	-0.28665, 8.18246	
8273	2	7, 1	823, 7	0.34802, 15.75490	
8273	2	3, 1	5485, 529	0.21601, 33.96022	
8369	2	2089, 219	11, 1	-0.24472, 7.62063	
8537	2	75, 41	55, 1	0.15569, 14.80030	
8609	2	9, 1	1409, 103	-0.45781, 26.81332	
8713	2	1, 1	51, 1	0.14729, 8.96657	
8761	0		$L(1) = 3.06626, S = 16$		
8969	2	29, 3	781, 47	-0.25712, 18.78534	
9001	0		$L(1) = 3.04561, S = 16$		
9137	0		$L(1) = 3.03421, S = 16$		
9209	0		$L(1) = 3.02827, S = 16$		
9241	0		$L(1) = 3.02564, S = 16$		
9281	0		$L(1) = 3.02238, S = 16$		
9337	2	5, 1	1528135, 113207	-0.19915, 51.11870	
9473	2	5, 3	18061895, 678647	-0.08241, 55.42424	
9517	2	87, 17	89, 7	-0.28796, 7.56907	
9521	2	7, 3	1291, 89	0.42997, 25.93856	
9601	2	7, 1	14617, 967	0.40415, 34.86028	
9649	2	557, 89	21, 1	0.33445, 8.68085	
9697	0		$L(1) = 2.98943, S = 16$		
9721	2	41, 27	1193, 103	-0.22015, 14.99177	
9769	0		$L(1) = 2.98390, S = 16$		
10177	2	3505, 333	1225, 113	-0.30612, 12.62882	
10369	0		$L(1) = 2.94204, S = 16$		
10369	2	1, 1	3609, 337	-0.29214, 31.97170	
10433	2	9, 1	25, 1	-0.34607, 8.41691	
10457	2	13435, 1641	339215, 7849	0.06085, 16.18982	
10513	2	59, 33	333, 31	-0.20354, 8.84614	
10657	0		$L(1) = 11.67881, S = 64$		
10889	2	189, 19	13, 1	0.24609, 8.76032	
10937	0		$L(1) = 11.60333, S = 64$		
10993	2	5, 1	693, 41	0.24569, 20.75436	
11057	2	1995, 233	3805, 329	-0.32768, 18.86964	
11113	2	7, 1	11, 1	-0.48301, 7.42255	
11161	0		$L(1) = 2.88617, S = 16$		
11177	0		$L(1) = 2.88513, S = 16$		
11257	0		$L(1) = 2.87999, S = 16$		
11321	2	63, 227	17, 1	-0.19310, 9.80701	
11329	0		$L(1) = 2.87541, S = 16$		
11617	0		$L(1) = 2.85742, S = 16$		
11633	2	3, 1	13, 1	-0.47480, 7.63653	
11657	2	95, 33	1915, 71	-0.19519, 14.94638	
11777	0		$L(1) = 11.389065, S = 64$		
11801	0		$L(1) = 2.84621, S = 16$		
11969	2		9, 1	-0.15001, 14.70714	
12041	2		19, 3	61, 1	-0.48151, 12.67156
12049	2		17, 3	11, 1	0.49631, 6.25408
12073	2		11, 3	21, 1	0.43172, 7.42925
12161	0		$L(1) = 11.29965, S = 64$		
12241	2	541, 233	277, 7	0.40484, 11.03837	
12329	2	729, 97	11, 1	-0.10609, 9.23748	
12377	0		$L(1) = 2.81251, S = 16$		
12409	2		31, 3	33, 1	-0.37424, 7.98017
12457	2		95, 9	8115, 553	-0.20691, 34.93605
12473	2		1667, 249	247, 23	-0.30163, 6.83721
12497	0		$L(1) = 2.80573, S = 16$		
12553	0		$L(1) = 2.80259, S = 16$		
12569	2		39, 19	41, 1	0.28861, 12.50831
12577	0		$L(1) = 2.80126, S = 16$		
12641	0		$L(1) = 2.79770, S = 16$		
12697	0		$L(1) = 11.17846, S = 64$		
12713	0		$L(1) = 2.79373, S = 16$		
12811	2	18374591, 2165433	11, 1	0.01487, 9.54164	
13049	0		$L(1) = 2.77557, S = 16$		
13121	0		$L(1) = 2.77176, S = 16$		
13217	0		$L(1) = 2.76671, S = 16$		
13337	0		$L(1) = 2.76047, S = 16$		
13417	0		$L(1) = 11.02537, S = 64$		
13441	2	93581, 11379	591, 17	0.42382, 16.54517	
13633	2		355, 43	15, 1	0.38861, 6.87030
13841	2		63, 19	11, 1	0.33301, 7.28064
13913	2		63, 11	25, 1	-0.25622, 11.11838
13921	0		$L(1) = 2.73105, S = 16$		
14249	2		9, 1	11, 1	-0.48911, 7.34076
14321	2		33, 43	113947, 5663	0.07423, 25.62016
14369	0		$L(1) = 2.70951, S = 16$		
14401	0		$L(1) = 2.70800, S = 16$		
14449	2		4501, 569	13, 1	0.09411, 9.78645
14537	2		3215, 417	35, 1	0.29224, 10.76173
14593	2		11, 3	351, 31	-0.00070, 10.04268
14633	2		183, 17	11, 1	-0.25403, 8.24270
14713	2		11, 1	15, 1	-0.46149, 7.77371
14737	2		5, 1	38390965, 57199	-0.39222, 56.62083
14753	2		9, 1	193, 17	0.45445, 18.21082
14897	0		$L(1) = 10.74070, S = 64$		
14929	2		11, 1	269, 23	0.17703, 15.82804
14969	2		123, 17	31, 1	-0.06635, 13.06344
15017	0		$L(1) = 10.71918, S = 64$		
15073	2		259, 27	39, 1	-0.33222, 11.53172

Prime	Rank	I point, rank 2 only	II point, rank 2 only	τ
15121	2	3113, 339	19, 1	-0.07037, 11.17215
15193	2	179, 81	199, 1	0.20667, 7.34989
15217	0		$L(1) = 2.67094, S = 16$	
15241	0		$L(1) = 2.66989, S = 16$	
15289	2	11, 1	1527, 119	-0.10587, 29.07412
15313	2	937, 187	27, 1	0.37915, 8.31812
15361	0		$L(1) = 2.66466, S = 16$	
15569	2	3, 1	37, 1	-0.14840, 13.63221
15761	0	273507, 75889	173, 1	0.10725, 9.49145
15809	2	9, 1	17, 1	-0.19513, 10.62580
15881	2	117, 11	5957, 233	0.04489, 16.71908
16183	2	717, 67	79, 7	0.35393, 6.43451
16249	0		$L(1) = 2.62749, S = 16$	
16361	0	9, 1	792979, 45367	-0.24652, 53.30924
16417	2		$L(1) = 2.62074, S = 16$	
16433	2	1113, 107	3657, 103	0.11455, 10.02792
16533	2	213, 67	1997, 167	0.11525, 10.06051
16633	2	695, 123	14001, 337	0.01880, 10.13888
16649	2	5839, 657	3283, 289	0.18319, 8.73931
16673	2	1585, 177	353, 17	0.29124, 7.84812
16729	0		$L(1) = 2.60843, S = 16$	
17033	2	25, 9	19, 1	0.01803, 11.37264
17137	0		$L(1) = 2.59277, S = 16$	
17209	0		$L(1) = 2.59005, S = 16$	
17321	2	72127, 6681	6143, 97	-0.30303, 12.59383
17377	2	15305, 2097	25, 1	0.30990, 8.52137
17417	0		$L(1) = 2.58228, S = 16$	
17497	0		$L(1) = 2.57933, S = 16$	
17609	2	27, 11	13, 1	-0.49167, 5.61382
17729	2	19, 3	5807, 257	0.00783, 20.67332
17737	0		$L(1) = 2.57056, S = 16$	
17881	2	12731, 1161	2031, 89	-0.37250, 15.04321
17929	0		$L(1) = 2.56365, S = 16$	
18011	2	17, 3	202337, 132481	-0.29180, 56.66268
18121	0		$L(1) = 2.55683, S = 16$	
18169	2	11, 1	87, 7	0.32830, 16.74173
18233	2	31, 3	65, 1	0.30274, 9.48452
18257	0		$L(1) = 10.20822, S = 64$	
18289	2	229, 33	101, 7	-0.32073, 7.46027
18353	0		$L(1) = 2.54871, S = 16$	
18433	2	1, 1	233, 1	0.21795, 20.67032
18481	2	299, 33	613, 47	0.41949, 18.41465
18521	0		$L(1) = 2.54291, S = 16$	
18593	2	35, 3	79, 1	-0.27804, 9.39044
18617	0		$L(1) = 2.53963, S = 16$	
18713	2	251, 67	2873, 47	0.09374, 9.80574
19121	2	1, 3	83, 7	-0.10726, 17.51039
19249	2	11, 1	21, 1	-0.41403, 8.38133
19289	2	3, 1	24023, 527	-0.34354, 35.73510
19417	0		$L(1) = 2.51305, S = 16$	
19433	0		$L(1) = 2.51254, S = 16$	
19441	0		$L(1) = 2.51228, S = 16$	
19457	0		$L(1) = 2.51176, S = 16$	
19577	0		$L(1) = 2.50790, S = 16$	
19777	0		$L(1) = 2.50154, S = 16$	
19793	2	29, 9	277, 17	-0.16412, 9.59929
19841	0		$L(1) = 2.49952, S = 16$	
19903	2	529, 59	409, 17	0.37413, 13.39975
20089	2	1, 3	1393, 97	-0.09648, 28.64906
20113	2	107, 9	12653, 967	0.03435, 20.25243
20177	2	266415, 32059	22355, 1457	-0.27039, 12.62211
20297	0		$L(1) = 2.48536, S = 16$	
20353	2	35, 3	31, 1	0.40852, 8.17227
20369	2	83, 33	13, 1	0.14198, 9.70393
20521	2	4561, 569	1059, 73	-0.33876, 12.38631
20641	2	1517, 179	23, 1	0.18819, 10.99953
20809	2	1, 1	19, 1	0.44207, 8.52455
20837	2	328293635, 103305609	15, 1	-0.07305, 10.17905
20873	2	69, 11	13, 1	-0.48958, 5.60729
20897	0		$L(1) = 2.46732, S = 16$	
20921	0		$L(1) = 2.46662, S = 16$	
21017	0		$L(1) = 2.46379, S = 16$	
21089	2	219, 19	103, 7	-0.30768, 7.95277
21193	0		$L(1) = 2.45866, S = 16$	
21313	2	163, 19	1351, 1	-0.08527, 10.19746
21433	2	5, 1	9615, 577	0.40224, 34.87518
21481	0		$L(1) = 2.45038, S = 16$	
21529	0		$L(1) = 2.44924, S = 16$	
21529	0		$L(1) = 2.44901, S = 16$	
21569	2	30537, 3401	17, 1	0.20574, 9.23885
21577	0		$L(1) = 22.02885, S = 1444$	
21601	0		$L(1) = 2.44697, S = 16$	
21673	2	197, 19	3093, 17	-0.20932, 9.08583
21713	2	3, 1	85, 7	-0.11675, 10.47821
21841	2	11, 1	7389, 257	0.17961, 34.77247
21961	0		$L(1) = 2.43688, S = 16$	
21977	0		$L(1) = 2.43644, S = 16$	
22441	0		$L(1) = 2.42371, S = 16$	
22697	0		$L(1) = 2.41688, S = 16$	
22721	0		$L(1) = 2.41624, S = 16$	
22777	2	565, 81	15, 1	-0.01217, 10.63682
23017	0		$L(1) = 2.40841, S = 16$	
23041	0		$L(1) = 2.40781, S = 16$	
23057	2	925, 81	463925, 7849	0.01085, 23.38997

Prime	Rank	1 point, rank 2 only	11 point, rank 2 only	τ
23209	2		457731, 89	0.07884, 43.27701
23369	0		$L(1) = 2.39931, S = 16$	
23417	2	541655, 44571	3466985, 141353	0.09608, 16.56422
23473	2	209, 43	75, 1	-0.36779, 6.78966
23537	0		$L(1) = 2.39502, S = 16$	
23561	2	1541, 843	13, 1	-0.23431, 8.21385
23609	2	61, 9	463, 17	0.13706, 10.32291
23633	2	23, 3	331, 7	-0.28864, 15.45131
23761	0		$L(1) = 2.38936, S = 16$	
23801	0		$L(1) = 2.38835, S = 16$	
23833	0		$L(1) = 2.38755, S = 16$	
23857	0		$L(1) = 9.54780, S = 64$	
23873	2	13, 3	151, 7	0.32269, 18.20198
23977	2	21985, 4481	16875, 17	-0.40639, 23.02100
23993	0		$L(1) = 2.38356, S = 16$	
24121	0		$L(1) = 2.38039, S = 16$	
24281	2	3, 1	179807, 14167	-0.35936, 47.15954
24329	2	403, 51	13, 1	0.09566, 9.98439
24473	0		$L(1) = 2.37179, S = 16$	
24841	2	19, 3	28869, 679	-0.03034, 40.45328
24953	2	307, 113	47, 1	0.46839, 8.52895
24977	2		$L(1) = 2.35973, S = 16$	
25033	2	19, 3	13, 1	-0.48260, 6.95425
25057	0		$L(1) = 9.43137, S = 64$	
25121	0		$L(1) = 2.35634, S = 16$	
25169	2	3, 1	29, 1	-0.03242, 12.92769
25409	2	137, 57	8257, 497	0.01081, 10.72171
25437	2	39585715, 4322659	15, 1	0.04343, 10.53134
25601	0		$L(1) = 9.38087, S = 64$	
25609	0		$L(1) = 2.34503, S = 16$	
25633	2	109, 19	55, 1	0.38015, 7.31549
25673	2	35, 3	13, 1	-0.49681, 6.66151
25793	2	783, 97	433, 31	0.26063, 8.82811
25849	2	137, 11	1729, 1	0.32366, 20.10175
25889	2	351, 97	137, 7	0.15636, 18.64191
25913	0		$L(1) = 2.33813, S = 16$	
25969	2	3517, 321	13, 1	0.06145, 10.10934
26041	2	31, 3	89, 7	0.29685, 16.08772
26177	0		$L(1) = 2.33221, S = 16$	
26209	2	253, 27	159, 1	-0.30372, 8.39750
26249	2	723, 67	13, 1	0.03908, 10.19619
26297	0		$L(1) = 2.32954, S = 16$	
26417	2	395, 33	115923, 3521	0.13790, 28.16698
26497	0		$L(1) = 9.30054, S = 64$	
26513	2	13, 33	13, 1	-0.26817, 8.55136
26561	2	9, 1	2273102833, 93117313	-0.05288, 85.08500
26633	2	1441, 177	20195, 673	-0.02896, 10.21174
26777	2	186795, 22777	695, 49	0.35728, 19.69225
26849	0		$L(1) = 2.31748, S = 16$	
26881	2	653, 51	276407, 2281	0.01623, 24.94405
26953	0		$L(1) = 2.31324, S = 16$	
26993	2	3, 1	13, 1	0.47246, 8.11076
27029	2	7, 9	17, 1	0.11868, 10.81894
27281	0		$L(1) = 2.30825, S = 16$	
27329	2	37, 3	2831, 161	-0.39104, 29.28721
27409	2	53, 9	13, 1	-0.48556, 5.88873
27449	2	5529, 1163	137, 7	-0.47669, 10.72351
27457	0		$L(1) = 2.30454, S = 16$	
27481	0		$L(1) = 2.30404, S = 16$	
27673	2	25, 3	25, 1	-0.10133, 12.25848
27809	2	173, 31	11383, 193	-0.10447, 16.39620
27953	2	1, 3	67, 1	0.28917, 9.11557
27961	0		$L(1) = 2.29408, S = 16$	
28001	0		$L(1) = 2.29326, S = 16$	
28201	0		$L(1) = 2.28919, S = 16$	
28297	2	24775, 3177	35, 1	0.19616, 12.02776
28393	2	7, 1	43, 1	-0.16495, 14.16561
28400	2	2319, 419	17, 1	-0.25566, 8.87201
28433	2	75, 17	13, 1	0.03658, 10.23047
28513	0		$L(1) = 2.28290, S = 16$	
28537	0		$L(1) = 20.51176, S = 144$	
28657	0		$L(1) = 2.28003, S = 16$	
28697	0		$L(1) = 9.11692, S = 64$	
28729	0		$L(1) = 2.27850, S = 16$	
28753	2	11, 1	1632077, 125041	0.14893, 49.90214
28817	2	23245, 7101	2605, 199	-0.45698, 18.10836
29017	0		$L(1) = 2.27292, S = 16$	
29033	2	9, 1	2531, 151	-0.25165, 25.33708
29137	0		$L(1) = 2.27058, S = 16$	
29153	2	353, 561	361, 23	0.32028, 7.24964
29201	2	1979, 153	101, 7	0.38785, 13.78767
29209	2	13, 1	23, 1	-0.42723, 8.74317
29569	2	10117, 867	407, 31	-0.40305, 10.76349
29761	0		$L(1) = 9.03432, S = 64$	
29833	2	139, 11	29, 1	-0.41172, 6.76320
30089	0		$L(1) = 2.25240, S = 16$	
30137	0		$L(1) = 2.25130, S = 16$	
30161	2	23, 3	4363, 7	-0.43185, 30.16541
30211	0		$L(1) = 2.24956, S = 16$	
30529	0		$L(1) = 2.24424, S = 16$	
30689	2	1849, 201	353, 23	-0.29273, 7.69648
30697	0		$L(1) = 2.24116, S = 16$	
30817	0		$L(1) = 2.23898, S = 16$	

Prime	Rank	1 point, rank 2 only	II point, rank 2 only	τ
30841	2	11, 1	41891, 1169	-0.48195, 39.54193
30881	2	37, 3	7319903, 410599	-0.05706, 62.90986
30937	0		$L(1) = 20,13122, S = 144$	
30977	0		$L(1) = 2,23608, S = 16$	
31033	2	169, 43	17, 1	-0.00820, 10.86392
31153	2	13, 1	8349, 311	0.33146, 34.47776
31249	0		$L(1) = 2,23120, S = 16$	
31321	0		$L(1) = 2,22992, S = 16$	
31337	0		$L(1) = 8,91852, S = 64$	
31393	2	55187, 20167	22791, 17	0.20601, 8.29814
31513	2	23, 3	41, 1	0.38266, 8.79248
31601	0		$L(1) = 2,22496, S = 16$	
31649	2	9, 1	97, 7	-0.11408, 10.38648
31721	0		$L(1) = 2,22852, S = 16$	
31769	0		$L(1) = 2,22201, S = 16$	
31817	0		$L(1) = 8,88169, S = 64$	
32009	2	207, 17	131, 1	-0.31680, 8.73299
32089	2	13, 1	2230007, 12113	-0.12170, 44.76521
32233	0		$L(1) = 2,21397, S = 16$	
32297	0		$L(1) = 8,85149, S = 64$	
32321	2	139, 33	17, 1	-0.29891, 8.93427
32353	2	275, 43	111, 7	-0.33680, 7.70973
32377	2	3, 1	31608735, 771169	-0.20996, 68.39849
32497	0		$L(1) = 2,20946, S = 16$	
32713	2	35, 3	780, 41	0.35358, 24.54167
32969	0		$L(1) = 2,20151, S = 16$	
32993	0		$L(1) = 2,20111, S = 16$	
33073	2	11, 1	61, 1	-0.25180, 10.07764
33377	2	1367, 843		$L(1) = 8,77901, S = 64$
33521	2		19, 1	-0.16467, 10.48562
33569	0		$L(1) = 2,19161, S = 16$	
33577	2	5, 3	1165, 7	-0.12177, 16.65132
33617	0		$L(1) = 2,19083, S = 16$	
33641	0		$L(1) = 2,19043, S = 16$	
33713	0		$L(1) = 2,18920, S = 16$	
33721	0		$L(1) = 2,18913, S = 16$	
33857	2	1118205, 83067	1015, 17	-0.18195, 25.13498
33937	0		$L(1) = 8,74256, S = 64$	
33961	2	203, 19	3109, 1	-0.41165, 27.18649
34129	2	5651, 1009	69, 1	-0.25360, 13.86287
34247	2	907, 129	2755, 199	0.36836, 27.67511
34297	0		$L(1) = 8,71953, S = 64$	
34343	0		$L(1) = 2,17963, S = 16$	
34361	0		$L(1) = 2,17887, S = 16$	
34457	2	52045, 7011	25, 1	-0.11002, 11.87852
34513	2	67, 9	101, 1	-0.30879, 8.80564
34721	0		$L(1) = 2,17320, S = 16$	
34841	2	23, 1		-0.09772, 11.84717
34849	2	1483, 153		0.18280, 10.79947
34897	0		$L(1) = 2,17045, S = 16$	
34961	2	33022417, 2733291	787, 1	0.37005, 16.44618
35081	2	63, 97	23251, 1567	-0.40855, 35.44704
35089	0		$L(1) = 2,16748, S = 16$	
35153	2	41, 3	35, 1	-0.40968, 8.48262
35201	0		$L(1) = 2,16575, S = 16$	
35449	2		$L(1) = 2,16269, S = 16$	
35537	0		14471, 1049	0.11437, 30.26111
35801	0		$L(1) = 2,16061, S = 16$	
35809	2	67097, 7899	146151, 103	-0.10785, 10.25842
35897	0		$L(1) = 8,62070, S = 64$	
35977	0		$L(1) = 2,15398, S = 16$	
35993	2	3, 1	71, 1	0.20759, 10.21247
36017	2	25, 3	9443915, 588769	-0.11598, 63.80831
36097	0		$L(1) = 2,15218, S = 16$	
36137	0		$L(1) = 2,15159, S = 16$	
36209	2	633, 83	667, 1	-0.35311, 13.71344
36457	0		$L(1) = 2,14685, S = 16$	
36529	0		$L(1) = 2,14579, S = 16$	
36721	0		$L(1) = 2,14298, S = 16$	
36793	2	151, 11	33, 1	-0.30821, 10.25788
36833	2	20659, 1707	3740713, 22019	0.10821, 10.54342
36857	0		$L(1) = 8,56401, S = 64$	
36913	0		$L(1) = 2,14019, S = 16$	
37049	0		$L(1) = 2,13822, S = 16$	
37057	0		$L(1) = 2,13811, S = 16$	
37201	0		$L(1) = 2,13609, S = 16$	
37217	0		$L(1) = 2,13581, S = 16$	
37273	2	13, 1	271, 7	-0.36375, 20.44427
37313	2	9, 1	17, 1	-0.47170, 8.30176
37321	0		$L(1) = 2,13432, S = 16$	
37337	2	2985, 307	385, 23	-0.39072, 11.69085
37361	0		$L(1) = 2,13375, S = 16$	
37409	2	117, 19	47, 1	0.41405, 7.27648
37489	2	343, 43	659, 41	-0.41508, 21.48613
37533	2	19, 11		0.37075, 9.47321
37897	0		$L(1) = 2,12616, S = 16$	
37993	2	113, 9	907, 49	0.08530, 10.89825
38201	0		$L(1) = 2,12192, S = 16$	
38273	2	283, 51	127, 7	-0.33588, 7.79180
38281	0		$L(1) = 2,12081, S = 16$	
38321	0		$L(1) = 2,12026, S = 16$	
38377	0		$L(1) = 2,11918, S = 16$	

Prime Rank	1 point, rank 2 only	11 point, rank 2 only	1 point, rank 2 only	11 point, rank 2 only	Prime Rank	1 point, rank 2 only	11 point, rank 2 only	1 point, rank 2 only	11 point, rank 2 only
38713	2	5.1	5287, 199	0.06144, 33.79340	42737	0	$L(1) = 2.06322, S = 16$	1581, 7	0.27622, 27.62514
38729	2	2217, 473	19, 1	0.22214, 9.79816	42753	2	43, 3	151, 1	-0.03446, 10.66944
38833	0	$L(1) = 2.11323, S = 16$	543, 23	-0.25008, 8.82896	42937	2	51132585565, 3841408009	101, 7	-0.24812, 10.24128
38873	2	553, 99	29, 1	-0.31436, 9.86615	42953	2	19, 3	$L(1) = 2.06053, S = 16$	637, 23
39113	2	2523, 187	241, 7	0.40629, 15.26249	42961	0	37, 3	15163, 553	-0.18923, 28.57737
39161	0	5137, 873	27, 1	-0.43840, 8.00433	43049	2	11, 1	2641987, 23311	-0.46362, 56.22783
39233	2	41, 3	167, 1	0.16839, 18.95900	43441	2	41, 3	1121, 7	-0.03445, 11.35303
39409	2	1317, 107	491983, 35729	741817, 29903	43457	0	$L(1) = 2.05321, S = 16$	9433, 479	0.17697, 9.92746
39521	0	39761	$L(1) = 2.10079, S = 16$	$L(1) = 2.10069, S = 16$	43609	0	$L(1) = 2.05236, S = 16$	229829, 15113	0.01181, 11.34948
39769	0	39769	$L(1) = 2.10069, S = 16$	$L(1) = 2.09932, S = 16$	43721	2	1193, 1371	65, 9	-0.28534, 15.68625
39857	0	39857	$L(1) = 2.09932, S = 16$	981, 41	43753	2	675, 7	215, 17	2694082425, 97621649
40009	2	107, 11	7519, 487	0.10096, 11.08743	43777	2	17, 3	19, 1	0.06048, 11.47529
40153	2	17323, 3001	385427, 27193	-0.20627, 9.10236	43793	2	3, 1	229, 7	0.04108, 21.19214
40169	2	33, 1241	175108313, 10002433	0.04344, 17.56762	43869	2	47, 9	257, 17	0.21451, 10.48933
40169	2	33, 1241	385427, 27193	-0.22810, 11.27287	44089	0	$L(1) = 2.04722, S = 16$	$L(1) = 2.04327, S = 16$	253, 17
40177	2	2373053, 658151	41833, 2231	0.15953, 10.12723	44129	0	$L(1) = 2.04676, S = 16$	$L(1) = 2.04592, S = 16$	35, 3
40241	0	57897, 7577	163, 7	0.07573, 11.23762	44257	2	2, 003, 257	487908375, 3131591	-0.36320, 68.78009
40289	2	9, 1	77, 1	0.38633, 7.75475	44417	2	349, 33	1447, 47	-0.33816, 25.81336
40361	2	671, 51	41, 1	0.42346, 7.84028	44449	0	$L(1) = 2.04306, S = 16$	$L(1) = 2.03931, S = 16$	17, 9
40333	2	119, 9	2487, 161	-0.39309, 15.28090	44633	2	$L(1) = 8.17005, S = 64$	$L(1) = 2.03323, S = 16$	420677, 57363
40329	2	2757, 233	625, 41	-0.14625, 24.61463	44777	0	$L(1) = 2.04527, S = 16$	$L(1) = 2.03352, S = 16$	93269, 6819
40377	2	215265, 15369	77, 1	0.38633, 7.75475	45137	0	$L(1) = 2.04527, S = 16$	$L(1) = 2.03352, S = 16$	8021, 23
40421	0	379, 27	41, 1	0.42346, 7.84028	45161	2	31, 3	17, 1	-0.48567, 7.26291
40481	2	119, 9	2487, 161	-0.39309, 15.28090	45281	2	61531, 4227	5101, 167	0.39872, 17.69843
40961	2	45301, 3531	25, 1	-0.15881, 10.40694	45289	0	$L(1) = 2.03352, S = 16$	$L(1) = 2.02897, S = 16$	31, 9
40993	2	45301, 3531	77, 1	0.38633, 7.75475	45329	2	$L(1) = 2.02852, S = 16$	$L(1) = 2.02852, S = 16$	121, 7
41081	0	$L(1) = 2.08371, S = 16$	41, 1	0.42346, 7.84028	45433	2	1, 3	121, 7	-0.46022, 13.51927
41113	0	$L(1) = 2.08330, S = 16$	2487, 161	-0.39309, 15.28090	45461	2	$L(1) = 2.02263, S = 16$	$L(1) = 2.02263, S = 16$	55387, 1583
41161	0	$L(1) = 2.08270, S = 16$	25, 1	-0.15881, 10.40694	45697	0	1951, 5209	28551, 433	0.25193, 18.36386
41177	2	222813063, 18532117	77, 1	0.38633, 7.75475	45737	0	4161, 1489	407, 31	-0.41350, 11.03602
41201	0	379, 27	41, 1	0.42346, 7.84028	46049	2	197, 57	28551, 433	-0.39669, 30.82401
41233	2	17, 3	68195, 4783	-0.42352, 39.71278	46073	2	$L(1) = 2.01721, S = 16$	$L(1) = 2.01721, S = 16$	57068905, 3320497
41257	0	$L(1) = 2.08148, S = 16$	77, 1	0.38633, 7.75475	46273	0	13385895, 21183233	57068905, 3320497	0.09971, 17.10727
41521	0	395811085619, 27910828857	1323181662709, 1363308377	-0.03370, 11.19566	46441	2	9, 1	211, 7	0.04132, 11.38888
41681	2	12149, 1881	127021, 7849	0.05852, 11.18193	46681	2	9, 1	211, 7	0.04132, 11.38888
41729	2	2317, 171	31, 1	-0.05899, 13.11515	46889	2	13, 1	605, 41	-0.33797, 20.95842
41761	0	$L(1) = 2.07517, S = 16$	127, 1	-0.25519, 10.31928	46993	2	13, 1	605, 41	-0.33797, 20.95842
41777	0	$L(1) = 2.07197, S = 16$	10971, 1121	6199, 217					
41819	2	9, 11	1067, 17	0.19896, 9.80216					
41969	2	169, 33	2051, 23	-0.10187, 10.43309					
42089	2	41, 3	6723, 391	0.14535, 24.12435					
42193	2	13, 3	127, 1	-0.25519, 10.31928					
42209	2	37, 3	15, 1	-0.49479, 7.13768					
42281	0	9, 1	412123, 28513	-0.22999, 51.16545					
42433	2	9, 1	412123, 28513	-0.22999, 51.16545					
42473	2	9, 1	412123, 28513	-0.22999, 51.16545					

Prime Rank	I point, rank 2 only	II point, rank 2 only	τ
47017	0	$L(1) = 2.01457, S = 16$	
47057	2	3322715, 408657	15685, 479
47129	2	113, 27	257, 7
47161	0	$L(1) = 8.05214, S = 64$	
47297	0	$L(1) = 2.01159, S = 16$	
47497	2	29675, 2011	33685, 599
47513	2	3, 1	0.47525, 31.76341
47569	2	1, 3	2479, 23
47609	2	8721, 659	-0.08679, 30.51014
47657	0	$L(1) = 8.03111, S = 64$	107, 7
47713	2	10967, 753	17, 1
47737	2	82773336395, 9181589161	4481, 119
47777	0	$L(1) = 8.02606, S = 64$	-0.20674, 9.62860
47881	0	$L(1) = 2.00512, S = 16$	15, 1
48017	2	1005, 97	0.04598, 10.60021
48281	2	60959289, 5811239	1405, 17
48313	2	15373, 4617	0.31105, 14.67154
48337	0	$L(1) = 2.00068, S = 16$	0.05133, 11.23648
48497	0	$L(1) = 1.99903, S = 16$	15, 1
48593	0	$L(1) = 1.99804, S = 16$	0.18373, 9.33800
48649	2	271, 97	
48673	2	1, 1	123, 7
48817	2	19089599815, 2486521147	17, 1
48889	2	7, 11	-0.17174, 10.90005
48953	0	$L(1) = 1.99435, S = 16$	35, 1
49009	0	$L(1) = 1.99378, S = 16$	33, 1
49057	2	7315, 1779	-0.27489, 11.97765
49121	0	$L(1) = 1.99265, S = 16$	15, 1
49193	2	9, 1	-0.16793, 9.25227
49201	0	$L(1) = 1.99181, S = 16$	43, 1
49297	2	5, 1	0.36319, 13.08402
49369	2	13, 1	$L(1) = 1.990412615, 7832421$
49393	2	23, 3	0.14259, 86.51850
49409	2	11, 3	-0.36170, 34.96007
49417	0	$L(1) = 1.98966, S = 16$	267, 17
49481	0	$L(1) = 1.98901, S = 16$	343, 23
49633	0	$L(1) = 1.98749, S = 16$	0.09126, 11.32421
49681	2	59539, 8011	
49801	2	11521, 1929	53, 1
			0.17170, 13.89372
			0.05731, 11.31807