Tests To run						Theoretic Values			Empirical						
ID	N	p = 1/N	n (attacks p period)	Attack Speed (msec)	T=Period Time (sec)	P Not Att	Mean Att (n . p)	Mode	Mean Attacks	STD	**Total Periods to Tes**	Time Min	Hours	Expected Periods	Without Attack (NA)
98_N0512_T0005_AS500_E100_NA98	512	0.001953125	10	500	5	98.06%	0.02				**100**	8.33	0.14	98.06	
76_N0512_T0070_AS500_E100_NA76	512	0.001953125	140	500	70	76.06%	0.27				**100**	116.67	1.94	76.06	
50_N0512_T0177_AS500_E100_NA50	512	0.001953125	354	500	177	50.05%	0.69				**100**	295.00	4.92	50.05	
24_N0512_T0365_AS500_E050_NA12	512	0.001953125	730	500	365	24.00%	1.43				**50**	304.17	5.07	12.00	
10_N0512_T0589_AS500_E050_NA05	512	0.001953125	1178	500	589	10.00%	2.30				**50**	490.83	8.18	5.00	
98_N1024_T0010_AS500_E100_NA98	1024	0.0009765625	20	500	10	98.06%	0.02				**100**	16.67	0.28	98.06	
76_N1024_T0140_AS500_E050_NA38	1024	0.0009765625	280	500	140	76.07%	0.27				**50**	116.67	1.94	38.03	
50_N1024_T0355_AS500_E050_NA25	1024	0.0009765625	710	500	355	49.97%	0.69				**50**	295.83	4.93	24.99	
24_N1024_T0730_AS500_E025_NA06	1024	0.0009765625	1460	500	730	24.02%	1.43				**25**	304.17	5.07	6.00	
10_N1024_T1179_AS500_E020_NA02	1024	0.0009765625	2358	500	1179	9.99%	2.30				**20**	393.00	6.55	2.00	rare
98_N2048_T0021_AS500_E100_NA98	2048	0.00048828125	42	500	21	97.97%	0.02				**100**	35.00	0.58	97.97	
76_N2048_T0281_AS500_E050_NA38	2048	0.00048828125	562	500	281	76.00%	0.27				**50**	234.17	3.90	38.00	
50_N2048_T0710_AS500_E030_NA15	2048	0.00048828125	1420	500	710	49.98%	0.69				**30**	355.00	5.92	14.99	
24_N2048_T1461_AS500_E025_NA06	2048	0.00048828125	2922	500	1461	24.00%	1.43				**25**	608.75	10.15	6.00	
10_N2048_T2357_AS500_E020_NA02	2048	0.00048828125	4714	500	2357	10.00%	2.30				**20**	785.67	13.09	2.00	rare

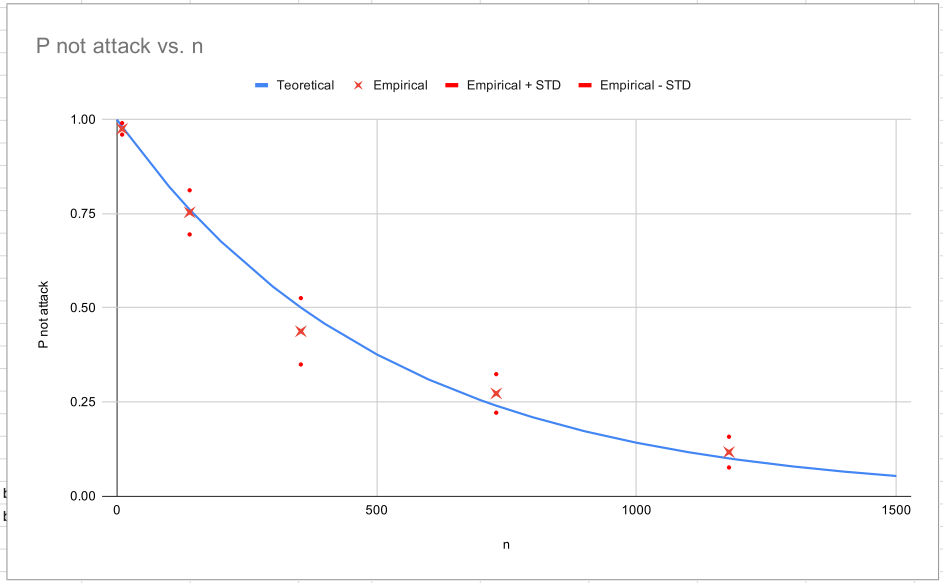
%notAttack_N_TPeriotTimeSec_ASAttackerSpeed_Experiments(TotalPeriods)_NotAttackedPeriods

Haaken Experiments

	Date measured	ID	Experiment	Successful attacks	periods	Empirical	Theoretical	Difference
	8. Feb	98_N0512_T0005_AS500_E100_NA98	0	4	100	96.00%	98.06%	2.06%
	8. Feb	76_N0512_T0070_AS500_E100_NA76	0	18	100	82.00%	76.06%	-5.94%
	11. Feb	76_N0512_T0070_AS500_E100_NA76	1	29	100	71.00%	76.00%	5.00%
	9. Feb	98_N1024_T0010_AS500_E100_NA98	0	2	100	98.00%	98.06%	0.06%
	9. Feb	76_N1024_T0140_AS500_E050_NA38	0	24	50	52.00%	76.07%	24.07%
	9. Feb	98_N2048_T0021_AS500_E100_NA98	0	0	100	100.00%	97.97%	-2.03%
	9. Feb	76_N2048_T0281_AS500_E050_NA38	0	18	50	64.00%	76.00%	12.00%
	9. Feb	76_N2048_T0281_AS500_E050_NA38	1	12	50	76.00%	76.00%	0.00%
night to	13. Feb	50_N0512_T0177_AS500_E100_NA50	0	52	100	48.00%	50.05%	2.05%
night to	13. Feb	24_N0512_T0365_AS500_E050_NA12	0	37	50	26.00%	24.00%	-2.00%
	13. Feb	10_N0512_T0589_AS500_E050_NA05	0	45	50	10.00%	10.00%	0.00%
night to	14. Feb	50_N1024_T0355_AS500_E050_NA25	0	25	50	50.00%	49.97%	-0.03%
night to	14. Feb	24_N1024_T0730_AS500_E025_NA06	0	19	25	24.00%	24.02%	0.02%
	14. Feb	10_N1024_T1179_AS500_E020_NA02	0	18	20	10.00%	9.99%	-0.01%
	15. Feb	50_N2048_T0710_AS500_E030_NA15	0	12	30	60.00%	49.98%	-10.02%
night to	17. Feb	24_N2048_T1461_AS500_E025_NA06	0	22	25	12.00%	24.00%	12.00%
night to	17. Feb	10_N2048_T2357_AS500_E020_NA02	0	20	20	0.00%	10.00%	10.00%
	18. Feb	98_N2048_T0021_AS500_E100_NA98	0	1	100	99.00%	97.97%	-1.03%
	18. Feb	76_N2048_T0281_AS500_E050_NA38	1	12	50	76.00%	76.00%	0.00%
	18. Feb	50_N2048_T0710_AS500_E030_NA15	1	13	30	56.67%	49.98%	-6.69%
	19. Feb	24_N2048_T1461_AS500_E025_NA06	1	14	25	44.00%	24.00%	-20.00%
night to	20. Feb	10_N2048_T2357_AS500_E020_NA02	1	19	20	5.00%	10.00%	5.00%
	20. Feb	98_N1024_T0010_AS500_E100_NA98	1	3	100	97.00%	98.06%	1.06%
	20. Feb	76_N1024_T0140_AS500_E050_NA38	1	15	50	70.00%	76.07%	6.07%
	20. Feb	50_N1024_T0355_AS500_E050_NA25	1	22	50	56.00%	49.97%	-6.03%
	21. Feb	24_N1024_T0730_AS500_E025_NA06	1	10	25	60.00%	24.02%	-35.98%
	22. Feb	98_N0512_T0005_AS500_E100_NA98	1	2	100	98.00%	98.06%	0.06%
	22. Feb	76_N0512_T0070_AS500_E100_NA76	1	27	100	73.00%	76.06%	3.06%
	22. Feb	50_N0512_T0177_AS500_E100_NA50	1	46	100	54.00%	50.05%	-3.95%
	23. Feb	98_N1024_T0010_AS500_E100_NA98	1	2	100	98.00%	98.06%	0.06%
	23. Feb	76_N1024_T0140_AS500_E050_NA38	1	13	50	74.00%	76.07%	2.07%
	23. Feb	50_N1024_T0355_AS500_E050_NA25	1	30	50	40.00%	49.97%	9.97%
night to	24. Feb	24_N0512_T0365_AS500_E050_NA12	1	37	50	26.00%	24.00%	-2.00%
night to	24. Feb	10_N0512_T0589_AS500_E050_NA05	1	43	50	14.00%	10.00%	-4.00%
	24. Feb	24_N1024_T0730_AS500_E025_NA06	1	21	25	16.00%	24.02%	8.02%
	24. Feb	10_N1024_T1179_AS500_E020_NA02	1	19	20	5.00%	9.99%	4.99%
	25. Feb	98_N0512_T0005_AS500_E100_NA98	2	4	100	96.00%	98.06%	2.06%
	25. Feb	76_N0512_T0070_AS500_E100_NA76	2	18	100	82.00%	76.06%	-5.94%
	25. Feb	50_N0512_T0177_AS500_E100_NA50	2	46	100	54.00%	50.05%	-3.95%

	night to	26. Feb	24_N0512_T0365_AS500_E050_NA12	2	33	50	34.00%	24.00%	-10.00%							
	night to	26. Feb	10_N0512_T0589_AS500_E050_NA05	2	41	50	18.00%	10.00%	-8.00%							
		26. Feb	98_N1024_T0010_AS500_E100_NA98	2	2	100	98.00%	98.06%	0.06%							
		26. Feb	76_N1024_T0140_AS500_E050_NA38	2	16	50	68.00%	76.07%	8.07%							
		26. Feb	50_N1024_T0355_AS500_E050_NA25	2	22	50	56.00%	49.97%	-6.03%							
	night to	27. Feb	24_N1024_T0730_AS500_E025_NA06	2	19	25	24.00%	24.02%	0.02%							
	night to	27. Feb	10_N1024_T1179_AS500_E020_NA02	2	16	20	20.00%	9.99%	-10.01%							
		27. Feb	98_N1024_T0010_AS500_E100_NA98	3	3	100	97.00%	98.06%	1.06%							
		27. Feb	76_N1024_T0140_AS500_E050_NA38	3	7	50	86.00%	76.07%	-9.93%							
		27. Feb	50_N1024_T0355_AS500_E050_NA25	3	24	50	52.00%	49.97%	-2.03%							
	night to	28. Feb	24_N1024_T0730_AS500_E025_NA06	3	18	25	28.00%	24.02%	-3.98%							
	night to	28. Feb	10_N1024_T1179_AS500_E020_NA02	3	19	20	5.00%	9.99%	4.99%							

Tests To run						Theoretic Values									
ID	N	p = 1/N	n (attacks p period)	Attack Speed (msec)	=Period Time (sec	P Not Att	Mean Att (n . p)	n	Not Attack	Not Att STD	**Total Periods to**	Time Min	Hours	Expected Periods Witho	Periods WITH At least 1 attack
98_N0512_T0005_AS	512	0.001953125	10	500	5	98.06%	0.02	10	0.975	0.015	**100**	8.33	0.14	98.06	2
76_N0512_T0070_AS	512	0.001953125	140	500	70	76.06%	0.27	140	0.753	0.059	**100**	116.67	1.94	76.06	24
50_N0512_T0177_AS	512	0.001953125	354	500	177	50.05%	0.69	354	0.438	0.088	**100**	295.00	4.92	50.05	50
24_N0512_T0365_AS	512	0.001953125	730	500	365	24.00%	1.43	730	0.273	0.051	**50**	304.17	5.07	12.00	38
10_N0512_T0589_AS	512	0.001953125	1178	500	589	10.00%	2.30	1178	0.117	0.041	**50**	490.83	8.18	5.00	45
			Total hours ALL exp	485.8486111											
			total hours	121.0416667											



TESTS

ID	Experiment	Successful attacl	periods	Empirical P Not Attackl	
98_N0512_T0005_AS	0	4	100	0.96	
	1	2	100	0.98	
	2				
	3				
	R1	3	100	0.97	
	R2	0	100	1	
	R3	2	100	0.98	
	RN	4	100	0.96	
76_N0512_T0070_AS	0	18	100	0.82	
We are OK but we nee	1	29	100	0.71	
	2	27	100	0.73	
	3				
	RN				
50_N0512_T0177_AS	0	52	100	0.48	
We are OK but we nee	1	46	100	0.54	
	2				
	3				
		62	100	0.38	sad t
02-28 00h50 B	RN	65	100	0.35	sad t
24_N0512_T0365_AS	0	37	50	0.26	
	1	37	50	0.26	
	2	33	50	0.34	
	3				
27-02 00h05 B	R	37	50	0.26	
26-02 15h00 A	R	39	50	0.22	
26-02 9h30 A	R	35	50	0.3	
25-02 23h05 B	R1	28	50		Very RARE-Suspicious
25-02 23h00 A	R2	40	50	0.2	
24-02 07h45 B	RN	33	50	0.34	
10_N0512_T0589_AS	0	45	50	0.1	
	1	43	50	0.14	
	2	41	50	0.18	
	3				
02-27 2h40 A	R	47	50	0.06	
02-23 11h45	R1	44	50	0.12	
02-24 00h05	RN	45	50	0.1	

Theoretical

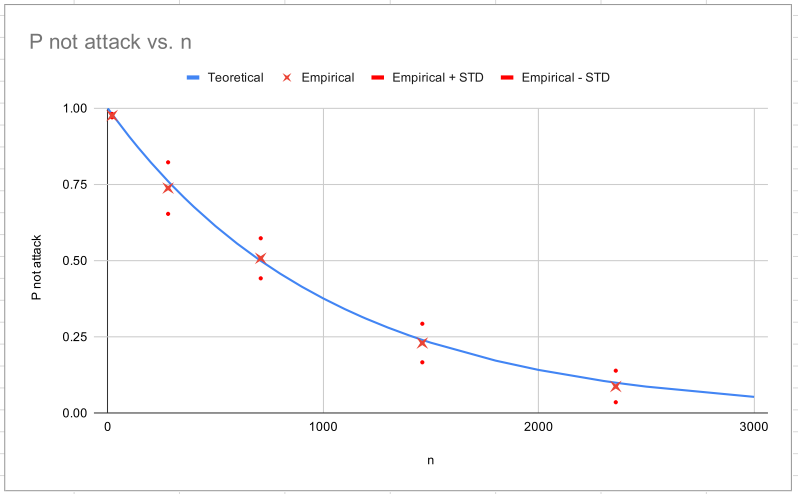
n	Teoretical	Empirical	Empirical + STD	Empirical - STD
0	1			
10	0.9806395204	0.975	0.990	0.960
100	0.8224204786			
140	0.7605564998	0.753	0.812	0.695
200	0.6763754436			

	300	0.556265016															
	354	0.5005327079	0.438	0.526	0.349												
	400	0.4574837407															
	500	0.376243997															
	600	0.3094307681															
	700	0.2544822004															
	730	0.2399858225	0.273	0.324	0.221												
	800	0.209291373															
	900	0.1721255112															
	1000	0.1415595453															
	1100	0.116421469															
	1178	0.09995541558	0.117	0.157	0.076												
	1200	0.09574740023															
	1300	0.07874462272															
	1400	0.0647611903															
	1500	0.05326092912															

	Tests To run						Theoretic Values									
	ID	N	p = 1/N	n (attacks p period)	Attack Speed (msec)	=Period Time (sec	P Not Att	Mean Att (n . p)	n	Not Attack	Not Att STD	**Total Periods to**	Time Min	Hours	Expected Periods Witho	Periods WITH At least 1 attack
	98_N1024_T0010_AS	1024	0.0009765625	20	500	10	98.06%	0.02	20	0.976	0.005	**100**	16.67	0.28	98.06	
	76_N1024_T0140_AS	1024	0.0009765625	280	500	140	76.07%	0.27	280	0.738	0.085	**50**	116.67	1.94	38.03	
	50_N1024_T0355_AS	1024	0.0009765625	710	500	355	49.97%	0.69	710	0.508	0.066	**50**	295.83	4.93	24.99	
	24_N1024_T0730_AS	1024	0.0009765625	1460	500	730	24.02%	1.43	1460	0.230	0.063	**25**	304.17	5.07	6.00	
	10_N1024_T1179_AS	1024	0.0009765625	2358	500	1179	9.99%	2.30	2358	0.088	0.052	**20**	393.00	6.55	2.00	rare
					485.8486111											
				total hours	147.4											

TESTS

	ID	Experiment	Successful attacl	periods	Empirical P Not Attackl	
	98_N1024_T0010_AS	0	2	100	0.98	
20. Feb		1	3	100	0.97	
23. Feb		2	2	100	0.98	
26. Feb		3	2	100	0.98	
27. Feb		4	3	100	0.97	
		RN				
	76_N1024_T0140_AS	0	24	50	0.52	
20. Feb		1	15	50	0.7	
23. Feb		2	13	50	0.74	
26. Feb		3	16	50	0.68	
27. Feb		4	7	50	0.86	
02-25 20h00 B		R1	12	50	0.76	
02-25 20h00 A		R2	13	50	0.74	
02-26 10h00 B		R3	9	50	0.82	
02-26 12h35 B		R4	11	50	0.78	
02-26 15h00 B		R5	12	50	0.76	
02-27 21h38 B		R6	11	50	0.78	
02-25 15h55 A		RN	14	50	0.72	
	50_N1024_T0355_AS	0	25	50	0.5	
20. Feb	OK	1	22	50	0.56	
23. Feb		2	30	50	0.4	
26. Feb		3	22	50	0.56	
27. Feb		4	24	50	0.52	
		RN				
	24_N1024_T0730_AS	0	19	25	0.24	
21. Feb		1	10	25		maybe hping finished in he last part?
24. Feb		2	21	25	0.16	
27. Feb		3	19	25	0.24	
28. Feb			18	25	0.28	
02-25 08h45		R1	17	25	0.32	
02-25 00h05		R2	22	25	0.12	
02-24 13h42		R3	19	25	0.24	
02-24 07h15		RN	19	25	0.24	
	10_N1024_T1179_AS	0	18	20	0.1	
24. Feb		1	19	20	0.05	
27. Feb		2	16	20	0.2	
28. Feb		3	19	20	0.05	
		R1	19	20	0.05	
		R2	19	20	0.05	
		R3	18	20	0.1	
		RN	18	20	0.1	



	Theoretical	1024			
	n	Teoretical	Empirical	Empirical + STD	Empirical - STD

	0	1															
	10	0.9902771788															
	20	0.9806488908	0.976	0.981	0.971												
	100	0.9069173435															
	140	0.8721572396															
	200	0.8224990679															
	280	0.7606582506	0.738	0.823	0.654												
	300	0.7459386697															
	354	0.7076030295															
	400	0.6765047167															
	500	0.6135338606															
	600	0.556424499															
	700	0.5046310285															
	710	0.4997245912	0.508	0.574	0.442												
	800	0.4576586318															
	900	0.4150585505															
	1000	0.3764237981															
	1100	0.341385271															
	1178	0.3163352516															
	1200	0.309608223															
	1300	0.2807890672															
	1400	0.2546524749															
	1460	0.2401532817	0.230	0.293	0.167												
	1500	0.230948746															
	1800	0.1722736004															
	2000	0.1416948757															
	2300	0.1056956871															
	2358	0.09987264151	0.088	0.139	0.036												
	2400	0.09585725178															
	2500	0.08693460414															
	3000	0.05333732329															

Tests To run

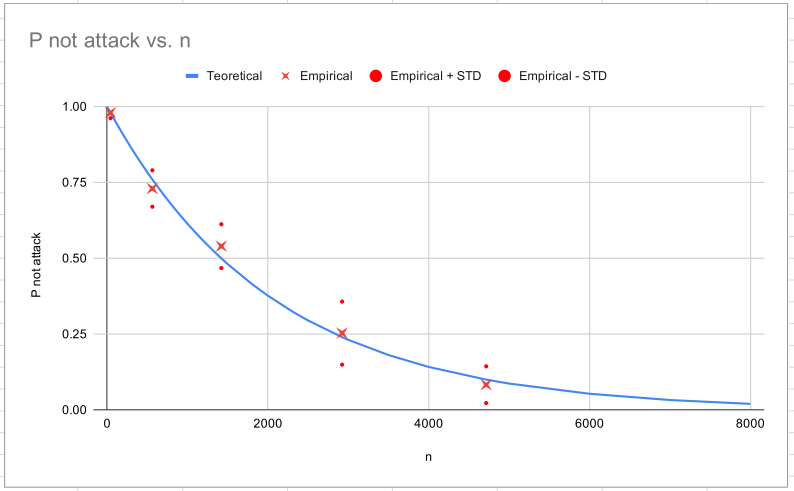
ID	N	p = 1/N	n (attacks p period)	Attack Speed (msec)	=Period Time (sec	Theoretic Values: P Not Att	Theoretic Values: Mean Att (n . p)	Theoretic Values: n	Empirical: Not Attack	Empirical: Not Att STD	Total Periods to	Time Min	Hours	Expected Periods Witho	Periods WITH At least 1 attack
98_N2048_T0021_AS	2048	0.00048828125	42	500	21	97.97%	0.02	42	0.980	0.018	**100**	35.00	0.58	97.97	
76_N2048_T0281_AS	2048	0.00048828125	562	500	281	76.00%	0.27	562	0.730	0.060	**50**	234.17	3.90	38.00	
50_N2048_T0710_AS	2048	0.00048828125	1420	500	710	49.98%	0.69	1420	0.540	0.072	**30**	355.00	5.92	14.99	
24_N2048_T1461_AS	2048	0.00048828125	2922	500	1461	24.00%	1.43	2922	0.253	0.104	**25**	608.75	10.15	6.00	
10_N2048_T2357_AS	2048	0.00048828125	4714	500	2357	10.00%	2.30	4714	0.083	0.061	**20**	785.67	13.09	2.00	rare

Total hours ALL exp 485.8486111

total hours 217.4069444

TESTS

	ID	Experiment	Successful attack	periods	Empirical P Not Attack
	98_N2048_T0021_AS	0	0	100	1
18. Feb		1	1	100	0.99
		2			
		3			
		R1	4	100	0.96
02-26 20h00 A		RN	3	100	0.97
	76_N2048_T0281_AS	0	18	50	0.64
		1	12	50	0.76
18. Feb		2	12	50	0.76
		3			
02-26 17h40 B		RN	12	50	0.76
15. Feb	50_N2048_T0710_AS	0	12	30	0.6
18. Feb		1	13	30	0.5666666667
		2			
		3			
02-25 11h00		R1	17	30	0.4333333333
02-25 00h05		R2	15	30	0.5
02-24 13h45		RN	12	30	0.6
	24_N2048_T1461_AS	0	22	25	0.12
19. Feb		1	14	25	0.44
		2			
		3			
		R1	19	25	0.24
		R2	16	25	0.36
		R3	19	25	0.24
02-27 14h30		R4	18	25	0.28
02-28 00h44 A		R5	18	25	0.28
02-29 00h05 A		R6	20	25	0.2
		RN	22	25	0.12
	10_N2048_T2357_AS	0	20	20	0
20. Feb		1	19	20	0.05
		2			
		3			
		R1	18	20	0.1
		R2	17	20	0.15
		R3	19	20	0.05
		RN	17	20	0.15



Detailed Renzo Tests:

Theoretical 2048

n	Teoretical	Empirical	Empirical + STD	Empirical - STD
0	1			
10	0.9951279024			
20	0.9902795421			
42	0.9796961358	0.980		0.962
100	0.9523334434			

	140	0.9339091925															
	200	0.9069389875															
	280	0.8721863799															
	300	0.8637083289															
	354	0.8412269683															
	400	0.822538327															
	500	0.7833307573															
	562	0.7599663827	0.730	0.790	0.670												
	600	0.7459920775															
	700	0.7104332039															
	710	0.706971904															
	800	0.6765692994															
	900	0.6443195706															
	1000	0.6136070754															
	1100	0.584358539															
	1178	0.5625159517															
	1200	0.5565041796															
	1300	0.5299775417															
	1400	0.5047153372															
	1420	0.499809273	0.540	0.612	0.468												
	1500	0.480657295															
	1800	0.4151477091															
	2000	0.3765136429															
	2300	0.3251979693															
	2358	0.3161152633															
	2400	0.3096969019															
	2500	0.294934717															
	2922	0.2400024241	0.253	0.357	0.149												
	3000	0.2310314353															
	3500	0.1809740291															
	4000	0.1417625233															
	4714	0.100026518	0.083	0.144	0.023												
	5000	0.08698648732															
	6000	0.05337552408															
	7000	0.03275159923															
	8000	0.02009661301															