

	BBS Complete Results					
	Total					
		Total Tests	Passed	Failed	Rate	
		5400	5334	66	98.78%	
	Test Name		Number Tested	Passed	Rate	
	Frequency Test		360	353	98.06%	
	Block Frequency Test		360	354	98.33%	
	Runs Test		360	357	99.17%	
	Longest Run of Ones		360	357	99.17%	
	Binary Matrix Rank		360	357	99.17%	
	Spectral Test		360	356	98.89%	
	Non-overlapping Template		360	355	98.61%	
	Overlapping Template		360	357	99.17%	
	Universal Test		360	353	98.06%	
	Linear Complexity		360	356	98.89%	
	Serial Test (both)		720	713	99.03%	
	Approximate Entropy		360	355	98.61%	
	Cumulative Sums (Forward)		360	356	98.89%	
	Cumulative Sums (Reverse)		360	355	98.61%	

	LCG Whole Complete Results					
	Total					
		Total Tests	Passed	Failed	Rate	
		2700	1450	1250	53.70%	
	Test Name		Number Tested	Passed	Rate	
	Frequency Test		180	0	0.00%	
	Block Frequency Test		180	110	61.11%	
	Runs Test		180	0	0.00%	
	Longest Run of Ones		180	161	89.44%	
	Binary Matrix Rank		180	179	99.44%	
	Spectral Test		180	179	99.44%	
	Non-overlapping Template		180	58	32.22%	
	Overlapping Template		180	70	38.89%	
	Universal Test		180	169	93.89%	
	Linear Complexity		180	179	99.44%	
	Serial Test (both)		360	293	81.39%	
	Approximate Entropy		180	52	28.89%	
	Cumulative Sums (Forward)		180	0	0.00%	
	Cumulative Sums (Reverse)		180	0	0.00%	

	LCG LSB Complete Results					
	Total					
		Total Tests	Passed	Failed	Rate	
		2700	2675	25	99.07%	
	Test Name		Number Tested	Passed	Rate	
	Frequency Test		180	178	98.89%	
	Block Frequency Test		180	180	100.00%	
	Runs Test		180	178	98.89%	
	Longest Run of Ones		180	178	98.89%	
	Binary Matrix Rank		180	177	98.33%	
	Spectral Test		180	180	100.00%	
	Non-overlapping Template		180	176	97.78%	
	Overlapping Template		180	180	100.00%	
	Universal Test		180	177	98.33%	
	Linear Complexity		180	178	98.89%	
	Serial Test (both)		360	356	98.89%	
	Approximate Entropy		180	179	99.44%	
	Cumulative Sums (Forward)		180	179	99.44%	
	Cumulative Sums (Reverse)		180	179	99.44%	

	LCG 31 Bit Complete Results					
	Total					
		Total Tests	Passed	Failed	Rate	
		1800	1230	570	68.33%	
	Test Name		Number Tested	Passed	Rate	
	Frequency Test		120	60	50.00%	
	Block Frequency Test		120	60	50.00%	
	Runs Test		120	58	48.33%	
	Longest Run of Ones		120	103	85.83%	
	Binary Matrix Rank		120	119	99.17%	
	Spectral Test		120	120	100.00%	
	Non-overlapping Template		120	60	50.00%	
	Overlapping Template		120	60	50.00%	
	Universal Test		120	110	91.67%	
	Linear Complexity		120	120	100.00%	
	Serial Test (both)		240	180	75.00%	
	Approximate Entropy		120	60	50.00%	
	Cumulative Sums (Forward)		120	60	50.00%	
	Cumulative Sums (Reverse)		120	60	50.00%	

	LCG 64 Bit Complete Results					
	Total					
		Total Tests	Passed	Failed	Rate	
		1800	1376	424	76.44%	
	Test Name		Number Tested	Passed	Rate	
	Frequency Test		120	60	50.00%	
	Block Frequency Test		120	111	92.50%	
	Runs Test		120	60	50.00%	
	Longest Run of Ones		120	117	97.50%	
	Binary Matrix Rank		120	120	100.00%	
	Spectral Test		120	120	100.00%	
	Non-overlapping Template		120	67	55.83%	
	Overlapping Template		120	73	60.83%	
	Universal Test		120	118	98.33%	
	Linear Complexity		120	118	98.33%	
	Serial Test (both)		240	233	97.08%	
	Approximate Entropy		120	59	49.17%	
	Cumulative Sums (Forward)		120	60	50.00%	
	Cumulative Sums (Reverse)		120	60	50.00%	

	LCG 128 Bit Complete Results					
	Total					
		Total Tests	Passed	Failed	Rate	
		1800	1519	281	84.39%	
	Test Name		Number Tested	Passed	Rate	
	Frequency Test		120	58	48.33%	
	Block Frequency Test		120	119	99.17%	
	Runs Test		120	60	50.00%	
	Longest Run of Ones		120	119	99.17%	
	Binary Matrix Rank		120	117	97.50%	
	Spectral Test		120	119	99.17%	
	Non-overlapping Template		120	107	89.17%	
	Overlapping Template		120	117	97.50%	
	Universal Test		120	118	98.33%	
	Linear Complexity		120	119	99.17%	
	Serial Test (both)		240	236	98.33%	
	Approximate Entropy		120	112	93.33%	
	Cumulative Sums (Forward)		120	59	49.17%	
	Cumulative Sums (Reverse)		120	59	49.17%	

	rand Complete Results					
	Total					
		Total Tests	Passed	Failed	Rate	
		3600	3151	449	87.53%	
	Test Name		Number Tested	Passed	Rate	
	Frequency Test		240	175	72.92%	
	Block Frequency Test		240	215	89.58%	
	Runs Test		240	177	73.75%	
	Longest Run of Ones		240	232	96.67%	
	Binary Matrix Rank		240	238	99.17%	
	Spectral Test		240	237	98.75%	
	Non-overlapping Template		240	197	82.08%	
	Overlapping Template		240	203	84.58%	
	Universal Test		240	235	97.92%	
	Linear Complexity		240	237	98.75%	
	Serial Test (both)		480	435	90.63%	
	Approximate Entropy		240	194	80.83%	
	Cumulative Sums (Forward)		240	178	74.17%	
	Cumulative Sums (Reverse)		240	178	74.17%	

	time Complete Results					
	Total					
		Total Tests	Passed	Failed	Rate	
		3600	3153	447	87.58%	
	Test Name		Number Tested	Passed	Rate	
	Frequency Test		240	179	74.58%	
	Block Frequency Test		240	214	89.17%	
	Runs Test		240	179	74.58%	
	Longest Run of Ones		240	232	96.67%	
	Binary Matrix Rank		240	237	98.75%	
	Spectral Test		240	239	99.58%	
	Non-overlapping Template		240	195	81.25%	
	Overlapping Template		240	202	84.17%	
	Universal Test		240	230	95.83%	
	Linear Complexity		240	240	100.00%	
	Serial Test (both)		480	433	90.21%	
	Approximate Entropy		240	195	81.25%	
	Cumulative Sums (Forward)		240	180	75.00%	
	Cumulative Sums (Reverse)		240	178	74.17%	

	urand Complete Results					
	Total					
		Total Tests	Passed	Failed	Rate	
		3600	3155	445	87.64%	
	Test Name		Number Tested	Passed	Rate	
	Frequency Test		240	177	73.75%	
	Block Frequency Test		240	215	89.58%	
	Runs Test		240	179	74.58%	
	Longest Run of Ones		240	232	96.67%	
	Binary Matrix Rank		240	238	99.17%	
	Spectral Test		240	239	99.58%	
	Non-overlapping Template		240	197	82.08%	
	Overlapping Template		240	203	84.58%	
	Universal Test		240	234	97.50%	
	Linear Complexity		240	236	98.33%	
	Serial Test (both)		480	454	94.58%	
	Approximate Entropy		240	197	82.08%	
	Cumulative Sums (Forward)		240	177	73.75%	
	Cumulative Sums (Reverse)		240	178	74.17%	

			Multiplier	Increment	Modulus						
	LCG Whole Number 31		1103515245	12345	2 ^{*31} - 1		BBS				
	Total						Total				
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate
		900	336	564	37.33%			900	891	9	99.00%
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate
	Frequency Test		60	0	0.00%		Frequency Test		60	60	100.00%
	Block Frequency Test		60	0	0.00%		Block Frequency Test		60	59	98.33%
	Runs Test		60	0	0.00%		Runs Test		60	60	100.00%
	Longest Run of Ones		60	44	73.33%		Longest Run of Ones		60	60	100.00%
	Binary Matrix Rank		60	60	100.00%		Binary Matrix Rank		60	59	98.33%
	Spectral Test		60	60	100.00%		Spectral Test		60	60	100.00%
	Non-overlapping Template		60	0	0.00%		Non-overlapping Template		60	60	100.00%
	Overlapping Template		60	0	0.00%		Overlapping Template		60	60	100.00%
	Universal Test		60	51	85.00%		Universal Test		60	58	96.67%
	Linear Complexity		60	60	100.00%		Linear Complexity		60	59	98.33%
	Serial Test (both)		120	61	50.83%		Serial Test (both)		120	119	99.17%
	Approximate Entropy		60	0	0.00%		Approximate Entropy		60	57	95.00%
	Cumulative Sums (Forward)		60	0	0.00%		Cumulative Sums (Forward)		60	60	100.00%
	Cumulative Sums (Reverse)		60	0	0.00%		Cumulative Sums (Reverse)		60	60	100.00%
	rand						rand				
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate
		300	113	187	37.67%			300	297	3	99.00%
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate
	Frequency Test		20	0	0.00%		Frequency Test		20	20	100.00%
	Block Frequency Test		20	0	0.00%		Block Frequency Test		20	20	100.00%
	Runs Test		20	0	0.00%		Runs Test		20	20	100.00%
	Longest Run of Ones		20	15	75.00%		Longest Run of Ones		20	20	100.00%
	Binary Matrix Rank		20	20	100.00%		Binary Matrix Rank		20	20	100.00%
	Spectral Test		20	20	100.00%		Spectral Test		20	20	100.00%
	Non-overlapping Template		20	0	0.00%		Non-overlapping Template		20	20	100.00%
	Overlapping Template		20	0	0.00%		Overlapping Template		20	20	100.00%
	Universal Test		20	18	90.00%		Universal Test		20	20	100.00%
	Linear Complexity		20	20	100.00%		Linear Complexity		20	19	95.00%
	Serial Test (both)		40	20	50.00%		Serial Test (both)		40	40	100.00%
	Approximate Entropy		20	0	0.00%		Approximate Entropy		20	18	90.00%
	Cumulative Sums (Forward)		20	0	0.00%		Cumulative Sums (Forward)		20	20	100.00%
	Cumulative Sums (Reverse)		20	0	0.00%		Cumulative Sums (Reverse)		20	20	100.00%
	time						time				
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate
		300	108	192	36.00%			300	297	3	99.00%
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate
	Frequency Test		20	0	0.00%		Frequency Test		20	20	100.00%
	Block Frequency Test		20	0	0.00%		Block Frequency Test		20	19	95.00%
	Runs Test		20	0	0.00%		Runs Test		20	20	100.00%
	Longest Run of Ones		20	15	75.00%		Longest Run of Ones		20	20	100.00%
	Binary Matrix Rank		20	20	100.00%		Binary Matrix Rank		20	20	100.00%
	Spectral Test		20	20	100.00%		Spectral Test		20	20	100.00%
	Non-overlapping Template		20	0	0.00%		Non-overlapping Template		20	20	100.00%
	Overlapping Template		20	0	0.00%		Overlapping Template		20	20	100.00%
	Universal Test		20	14	70.00%		Universal Test		20	18	90.00%
	Linear Complexity		20	20	100.00%		Linear Complexity		20	20	100.00%
	Serial Test (both)		40	19	47.50%		Serial Test (both)		40	40	100.00%
	Approximate Entropy		20	0	0.00%		Approximate Entropy		20	20	100.00%
	Cumulative Sums (Forward)		20	0	0.00%		Cumulative Sums (Forward)		20	20	100.00%
	Cumulative Sums (Reverse)		20	0	0.00%		Cumulative Sums (Reverse)		20	20	100.00%
	urand						urand				
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate
		300	115	185	38.33%			300	297	3	99.00%
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate
	Frequency Test		20	0	0.00%		Frequency Test		20	20	100.00%
	Block Frequency Test		20	0	0.00%		Block Frequency Test		20	20	100.00%
	Runs Test		20	0	0.00%		Runs Test		20	20	100.00%
	Longest Run of Ones		20	14	70.00%		Longest Run of Ones		20	20	100.00%
	Binary Matrix Rank		20	20	100.00%		Binary Matrix Rank		20	19	95.00%
	Spectral Test		20	20	100.00%		Spectral Test		20	20	100.00%
	Non-overlapping Template		20	0	0.00%		Non-overlapping Template		20	20	100.00%
	Overlapping Template		20	0	0.00%		Overlapping Template		20	20	100.00%
	Universal Test		20	19	95.00%		Universal Test		20	20	100.00%
	Linear Complexity		20	20	100.00%		Linear Complexity		20	20	100.00%
	Serial Test (both)		40	22	55.00%		Serial Test (both)		40	39	97.50%
	Approximate Entropy		20	0	0.00%		Approximate Entropy		20	19	95.00%
	Cumulative Sums (Forward)		20	0	0.00%		Cumulative Sums (Forward)		20	20	100.00%
	Cumulative Sums (Reverse)		20	0	0.00%		Cumulative Sums (Reverse)		20	20	100.00%

			Multiplier	Increment	Modulus						
	LCG LSB Number 31		1103515245	12345	2 ^{*31} - 1		BBS				
	Total						Total				
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate
		900	894	6	99.33%			900	897	3	99.67%
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate
	Frequency Test		60	60	100.00%		Frequency Test		60	60	100.00%
	Block Frequency Test		60	60	100.00%		Block Frequency Test		60	59	98.33%
	Runs Test		60	58	96.67%		Runs Test		60	60	100.00%
	Longest Run of Ones		60	59	98.33%		Longest Run of Ones		60	60	100.00%
	Binary Matrix Rank		60	59	98.33%		Binary Matrix Rank		60	60	100.00%
	Spectral Test		60	60	100.00%		Spectral Test		60	60	100.00%
	Non-overlapping Template		60	60	100.00%		Non-overlapping Template		60	60	100.00%
	Overlapping Template		60	60	100.00%		Overlapping Template		60	59	98.33%
	Universal Test		60	59	98.33%		Universal Test		60	60	100.00%
	Linear Complexity		60	60	100.00%		Linear Complexity		60	59	98.33%
	Serial Test (both)		120	119	99.17%		Serial Test (both)		120	120	100.00%
	Approximate Entropy		60	60	100.00%		Approximate Entropy		60	60	100.00%
	Cumulative Sums (Forward)		60	60	100.00%		Cumulative Sums (Forward)		60	60	100.00%
	Cumulative Sums (Reverse)		60	60	100.00%		Cumulative Sums (Reverse)		60	60	100.00%
	rand						rand				
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate
		300	297	3	99.00%			300	299	1	99.67%
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate
	Frequency Test		20	20	100.00%		Frequency Test		20	20	100.00%
	Block Frequency Test		20	20	100.00%		Block Frequency Test		20	20	100.00%
	Runs Test		20	18	90.00%		Runs Test		20	20	100.00%
	Longest Run of Ones		20	20	100.00%		Longest Run of Ones		20	20	100.00%
	Binary Matrix Rank		20	20	100.00%		Binary Matrix Rank		20	20	100.00%
	Spectral Test		20	20	100.00%		Spectral Test		20	20	100.00%
	Non-overlapping Template		20	20	100.00%		Non-overlapping Template		20	20	100.00%
	Overlapping Template		20	20	100.00%		Overlapping Template		20	19	95.00%
	Universal Test		20	20	100.00%		Universal Test		20	20	100.00%
	Linear Complexity		20	20	100.00%		Linear Complexity		20	20	100.00%
	Serial Test (both)		40	39	97.50%		Serial Test (both)		40	40	100.00%
	Approximate Entropy		20	20	100.00%		Approximate Entropy		20	20	100.00%
	Cumulative Sums (Forward)		20	20	100.00%		Cumulative Sums (Forward)		20	20	100.00%
	Cumulative Sums (Reverse)		20	20	100.00%		Cumulative Sums (Reverse)		20	20	100.00%
	time						time				
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate
		300	298	2	99.33%			300	300	0	100.00%
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate
	Frequency Test		20	20	100.00%		Frequency Test		20	20	100.00%
	Block Frequency Test		20	20	100.00%		Block Frequency Test		20	20	100.00%
	Runs Test		20	20	100.00%		Runs Test		20	20	100.00%
	Longest Run of Ones		20	19	95.00%		Longest Run of Ones		20	20	100.00%
	Binary Matrix Rank		20	19	95.00%		Binary Matrix Rank		20	20	100.00%
	Spectral Test		20	20	100.00%		Spectral Test		20	20	100.00%
	Non-overlapping Template		20	20	100.00%		Non-overlapping Template		20	20	100.00%
	Overlapping Template		20	20	100.00%		Overlapping Template		20	20	100.00%
	Universal Test		20	20	100.00%		Universal Test		20	20	100.00%
	Linear Complexity		20	20	100.00%		Linear Complexity		20	20	100.00%
	Serial Test (both)		40	40	100.00%		Serial Test (both)		40	40	100.00%
	Approximate Entropy		20	20	100.00%		Approximate Entropy		20	20	100.00%
	Cumulative Sums (Forward)		20	20	100.00%		Cumulative Sums (Forward)		20	20	100.00%
	Cumulative Sums (Reverse)		20	20	100.00%		Cumulative Sums (Reverse)		20	20	100.00%
	urand						urand				
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate
		300	299	1	99.67%			300	298	2	99.33%
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate
	Frequency Test		20	20	100.00%		Frequency Test		20	20	100.00%
	Block Frequency Test		20	20	100.00%		Block Frequency Test		20	19	95.00%
	Runs Test		20	20	100.00%		Runs Test		20	20	100.00%
	Longest Run of Ones		20	20	100.00%		Longest Run of Ones		20	20	100.00%
	Binary Matrix Rank		20	20	100.00%		Binary Matrix Rank		20	20	100.00%
	Spectral Test		20	20	100.00%		Spectral Test		20	20	100.00%
	Non-overlapping Template		20	20	100.00%		Non-overlapping Template		20	20	100.00%
	Overlapping Template		20	20	100.00%		Overlapping Template		20	20	100.00%
	Universal Test		20	19	95.00%		Universal Test		20	20	100.00%
	Linear Complexity		20	20	100.00%		Linear Complexity		20	19	95.00%
	Serial Test (both)		40	40	100.00%		Serial Test (both)		40	40	100.00%
	Approximate Entropy		20	20	100.00%		Approximate Entropy		20	20	100.00%
	Cumulative Sums (Forward)		20	20	100.00%		Cumulative Sums (Forward)		20	20	100.00%
	Cumulative Sums (Reverse)		20	20	100.00%		Cumulative Sums (Reverse)		20	20	100.00%

			Multiplier	Increment	Modulus						
	LCG Whole Number 64	1575024928501108917		1	2^64 - 1		BBS				
	Total						Total				
	Total Tests	900	Passed	418	Rate		Total Tests	900	Passed	890	Rate
					53.56%					10	98.89%
	Test Name	Number Tested	Passed		Rate		Test Name	Number Tested	Passed		Rate
	Frequency Test	60	0		0.00%		Frequency Test	60	60		100.00%
	Block Frequency Test	60	51		85.00%		Block Frequency Test	60	58		96.67%
	Runs Test	60	0		0.00%		Runs Test	60	59		98.33%
	Longest Run of Ones	60	58		96.67%		Longest Run of Ones	60	59		98.33%
	Binary Matrix Rank	60	60		100.00%		Binary Matrix Rank	60	60		100.00%
	Spectral Test	60	60		100.00%		Spectral Test	60	59		98.33%
	Non-overlapping Template	60	8		13.33%		Non-overlapping Template	60	59		98.33%
	Overlapping Template	60	13		21.67%		Overlapping Template	60	59		98.33%
	Universal Test	60	59		98.33%		Universal Test	60	59		98.33%
	Linear Complexity	60	60		100.00%		Linear Complexity	60	59		98.33%
	Serial Test (both)	120	113		94.17%		Serial Test (both)	120	119		99.17%
	Approximate Entropy	60	0		0.00%		Approximate Entropy	60	60		100.00%
	Cumulative Sums (Forward)	60	0		0.00%		Cumulative Sums (Forward)	60	60		100.00%
	Cumulative Sums (Reverse)	60	0		0.00%		Cumulative Sums (Reverse)	60	60		100.00%
	rand						rand				
	Total Tests	300	Passed	139	Rate		Total Tests	300	Passed	295	Rate
					53.67%					5	98.33%
	Test Name	Number Tested	Passed		Rate		Test Name	Number Tested	Passed		Rate
	Frequency Test	20	0		0.00%		Frequency Test	20	20		100.00%
	Block Frequency Test	20	16		80.00%		Block Frequency Test	20	20		100.00%
	Runs Test	20	0		0.00%		Runs Test	20	19		95.00%
	Longest Run of Ones	20	19		95.00%		Longest Run of Ones	20	20		100.00%
	Binary Matrix Rank	20	20		100.00%		Binary Matrix Rank	20	20		100.00%
	Spectral Test	20	20		100.00%		Spectral Test	20	19		95.00%
	Non-overlapping Template	20	3		15.00%		Non-overlapping Template	20	19		95.00%
	Overlapping Template	20	6		30.00%		Overlapping Template	20	20		100.00%
	Universal Test	20	19		95.00%		Universal Test	20	20		100.00%
	Linear Complexity	20	20		100.00%		Linear Complexity	20	19		95.00%
	Serial Test (both)	40	38		95.00%		Serial Test (both)	40	39		97.50%
	Approximate Entropy	20	0		0.00%		Approximate Entropy	20	20		100.00%
	Cumulative Sums (Forward)	20	0		0.00%		Cumulative Sums (Forward)	20	20		100.00%
	Cumulative Sums (Reverse)	20	0		0.00%		Cumulative Sums (Reverse)	20	20		100.00%
	time						time				
	Total Tests	300	Passed	141	Rate		Total Tests	300	Passed	297	Rate
					53.00%					3	99.00%
	Test Name	Number Tested	Passed		Rate		Test Name	Number Tested	Passed		Rate
	Frequency Test	20	0		0.00%		Frequency Test	20	20		100.00%
	Block Frequency Test	20	17		85.00%		Block Frequency Test	20	18		90.00%
	Runs Test	20	0		0.00%		Runs Test	20	20		100.00%
	Longest Run of Ones	20	20		100.00%		Longest Run of Ones	20	20		100.00%
	Binary Matrix Rank	20	20		100.00%		Binary Matrix Rank	20	20		100.00%
	Spectral Test	20	20		100.00%		Spectral Test	20	20		100.00%
	Non-overlapping Template	20	2		10.00%		Non-overlapping Template	20	20		100.00%
	Overlapping Template	20	3		15.00%		Overlapping Template	20	20		100.00%
	Universal Test	20	20		100.00%		Universal Test	20	19		95.00%
	Linear Complexity	20	20		100.00%		Linear Complexity	20	20		100.00%
	Serial Test (both)	40	37		92.50%		Serial Test (both)	40	40		100.00%
	Approximate Entropy	20	0		0.00%		Approximate Entropy	20	20		100.00%
	Cumulative Sums (Forward)	20	0		0.00%		Cumulative Sums (Forward)	20	20		100.00%
	Cumulative Sums (Reverse)	20	0		0.00%		Cumulative Sums (Reverse)	20	20		100.00%
	urand						urand				
	Total Tests	300	Passed	138	Rate		Total Tests	300	Passed	298	Rate
					54.00%					2	99.33%
	Test Name	Number Tested	Passed		Rate		Test Name	Number Tested	Passed		Rate
	Frequency Test	20	0		0.00%		Frequency Test	20	20		100.00%
	Block Frequency Test	20	18		90.00%		Block Frequency Test	20	20		100.00%
	Runs Test	20	0		0.00%		Runs Test	20	20		100.00%
	Longest Run of Ones	20	19		95.00%		Longest Run of Ones	20	19		95.00%
	Binary Matrix Rank	20	20		100.00%		Binary Matrix Rank	20	20		100.00%
	Spectral Test	20	20		100.00%		Spectral Test	20	20		100.00%
	Non-overlapping Template	20	3		15.00%		Non-overlapping Template	20	20		100.00%
	Overlapping Template	20	5		25.00%		Overlapping Template	20	19		95.00%
	Universal Test	20	20		100.00%		Universal Test	20	20		100.00%
	Linear Complexity	20	20		100.00%		Linear Complexity	20	20		100.00%
	Serial Test (both)	40	38		95.00%		Serial Test (both)	40	40		100.00%
	Approximate Entropy	20	0		0.00%		Approximate Entropy	20	20		100.00%
	Cumulative Sums (Forward)	20	0		0.00%		Cumulative Sums (Forward)	20	20		100.00%
	Cumulative Sums (Reverse)	20	0		0.00%		Cumulative Sums (Reverse)	20	20		100.00%

			Multiplier	Increment	Modulus							
	LCG LSB 64		1575024928501108917	1	2^64 - 1		BBS					
	Total						Total					
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
		900	894	6	99.33%			900	882	18	98.00%	
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate	
	Frequency Test		60	60	100.00%		Frequency Test		60	56	93.33%	
	Block Frequency Test		60	60	100.00%		Block Frequency Test		60	60	100.00%	
	Runs Test		60	60	100.00%		Runs Test		60	60	100.00%	
	Longest Run of Ones		60	59	98.33%		Longest Run of Ones		60	59	98.33%	
	Binary Matrix Rank		60	60	100.00%		Binary Matrix Rank		60	60	100.00%	
	Spectral Test		60	60	100.00%		Spectral Test		60	60	100.00%	
	Non-overlapping Template		60	59	98.33%		Non-overlapping Template		60	59	98.33%	
	Overlapping Template		60	60	100.00%		Overlapping Template		60	60	100.00%	
	Universal Test		60	59	98.33%		Universal Test		60	58	96.67%	
	Linear Complexity		60	58	96.67%		Linear Complexity		60	59	98.33%	
	Serial Test (both)		120	120	100.00%		Serial Test (both)		120	118	98.33%	
	Approximate Entropy		60	59	98.33%		Approximate Entropy		60	59	98.33%	
	Cumulative Sums (Forward)		60	60	100.00%		Cumulative Sums (Forward)		60	57	95.00%	
	Cumulative Sums (Reverse)		60	60	100.00%		Cumulative Sums (Reverse)		60	57	95.00%	
	rand						rand					
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
		300	298	2	99.33%			300	299	1	99.67%	
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate	
	Frequency Test		20	20	100.00%		Frequency Test		20	20	100.00%	
	Block Frequency Test		20	20	100.00%		Block Frequency Test		20	20	100.00%	
	Runs Test		20	20	100.00%		Runs Test		20	20	100.00%	
	Longest Run of Ones		20	20	100.00%		Longest Run of Ones		20	20	100.00%	
	Binary Matrix Rank		20	20	100.00%		Binary Matrix Rank		20	20	100.00%	
	Spectral Test		20	20	100.00%		Spectral Test		20	20	100.00%	
	Non-overlapping Template		20	20	100.00%		Non-overlapping Template		20	19	95.00%	
	Overlapping Template		20	20	100.00%		Overlapping Template		20	20	100.00%	
	Universal Test		20	19	95.00%		Universal Test		20	20	100.00%	
	Linear Complexity		20	20	100.00%		Linear Complexity		20	20	100.00%	
	Serial Test (both)		40	40	100.00%		Serial Test (both)		40	20	50.00%	
	Approximate Entropy		20	19	95.00%		Approximate Entropy		20	20	100.00%	
	Cumulative Sums (Forward)		20	20	100.00%		Cumulative Sums (Forward)		20	20	100.00%	
	Cumulative Sums (Reverse)		20	20	100.00%		Cumulative Sums (Reverse)		20	20	100.00%	
	time						time					
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
		300	298	2	99.33%			300	296	4	98.67%	
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate	
	Frequency Test		20	20	100.00%		Frequency Test		20	19	95.00%	
	Block Frequency Test		20	20	100.00%		Block Frequency Test		20	20	100.00%	
	Runs Test		20	20	100.00%		Runs Test		20	20	100.00%	
	Longest Run of Ones		20	19	95.00%		Longest Run of Ones		20	19	95.00%	
	Binary Matrix Rank		20	20	100.00%		Binary Matrix Rank		20	20	100.00%	
	Spectral Test		20	20	100.00%		Spectral Test		20	20	100.00%	
	Non-overlapping Template		20	19	95.00%		Non-overlapping Template		20	20	100.00%	
	Overlapping Template		20	20	100.00%		Overlapping Template		20	20	100.00%	
	Universal Test		20	20	100.00%		Universal Test		20	19	95.00%	
	Linear Complexity		20	20	100.00%		Linear Complexity		20	20	100.00%	
	Serial Test (both)		40	20	50.00%		Serial Test (both)		40	40	100.00%	
	Approximate Entropy		20	20	100.00%		Approximate Entropy		20	20	100.00%	
	Cumulative Sums (Forward)		20	20	100.00%		Cumulative Sums (Forward)		20	20	100.00%	
	Cumulative Sums (Reverse)		20	20	100.00%		Cumulative Sums (Reverse)		20	19	95.00%	
	urand						urand					
		Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
		300	298	2	99.33%			300	287	13	95.67%	
	Test Name		Number Tested	Passed	Rate		Test Name		Number Tested	Passed	Rate	
	Frequency Test		20	20	100.00%		Frequency Test		20	17	85.00%	
	Block Frequency Test		20	20	100.00%		Block Frequency Test		20	20	100.00%	
	Runs Test		20	20	100.00%		Runs Test		20	20	100.00%	
	Longest Run of Ones		20	20	100.00%		Longest Run of Ones		20	20	100.00%	
	Binary Matrix Rank		20	20	100.00%		Binary Matrix Rank		20	20	100.00%	
	Spectral Test		20	20	100.00%		Spectral Test		20	20	100.00%	
	Non-overlapping Template		20	20	100.00%		Non-overlapping Template		20	20	100.00%	
	Overlapping Template		20	20	100.00%		Overlapping Template		20	20	100.00%	
	Universal Test		20	20	100.00%		Universal Test		20	19	95.00%	
	Linear Complexity		20	18	90.00%		Linear Complexity		20	19	95.00%	
	Serial Test (both)		40	40	100.00%		Serial Test (both)		40	38	95.00%	
	Approximate Entropy		20	20	100.00%		Approximate Entropy		20	19	95.00%	
	Cumulative Sums (Forward)		20	20	100.00%		Cumulative Sums (Forward)		20	17	85.00%	
	Cumulative Sums (Reverse)		20	20	100.00%		Cumulative Sums (Reverse)		20	18	90.00%	

			Multiplier	Increment	Modulus						
	LCG Whole Number 128			1	2 ¹²⁸ - 1		BBS				
	Total						Total				
	Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
	900	632	268	70.22%			900	888	12	98.67%	
	Test Name	Number Tested	Passed	Rate			Test Name	Number Tested	Passed	Rate	
	Frequency Test	60	0	0.00%			Frequency Test	60	58	96.67%	
	Block Frequency Test	60	59	98.33%			Block Frequency Test	60	58	96.67%	
	Runs Test	60	0	0.00%			Runs Test	60	59	98.33%	
	Longest Run of Ones	60	59	98.33%			Longest Run of Ones	60	59	98.33%	
	Binary Matrix Rank	60	59	98.33%			Binary Matrix Rank	60	59	98.33%	
	Spectral Test	60	59	98.33%			Spectral Test	60	59	98.33%	
	Non-overlapping Template	60	50	83.33%			Non-overlapping Template	60	60	100.00%	
	Overlapping Template	60	57	95.00%			Overlapping Template	60	59	98.33%	
	Universal Test	60	59	98.33%			Universal Test	60	60	100.00%	
	Linear Complexity	60	59	98.33%			Linear Complexity	60	60	100.00%	
	Serial Test (both)	120	119	99.17%			Serial Test (both)	120	119	99.17%	
	Approximate Entropy	60	52	86.67%			Approximate Entropy	60	59	98.33%	
	Cumulative Sums (Forward)	60	0	0.00%			Cumulative Sums (Forward)	60	60	100.00%	
	Cumulative Sums (Reverse)	60	0	0.00%			Cumulative Sums (Reverse)	60	59	98.33%	
	rand						rand				
	Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
	300	209	91	69.67%			300	294	6	98.00%	
	Test Name	Number Tested	Passed	Rate			Test Name	Number Tested	Passed	Rate	
	Frequency Test	20	0	0.00%			Frequency Test	20	18	90.00%	
	Block Frequency Test	20	19	95.00%			Block Frequency Test	20	20	100.00%	
	Runs Test	20	0	0.00%			Runs Test	20	20	100.00%	
	Longest Run of Ones	20	19	95.00%			Longest Run of Ones	20	19	95.00%	
	Binary Matrix Rank	20	20	100.00%			Binary Matrix Rank	20	19	95.00%	
	Spectral Test	20	20	100.00%			Spectral Test	20	19	95.00%	
	Non-overlapping Template	20	17	85.00%			Non-overlapping Template	20	20	100.00%	
	Overlapping Template	20	18	90.00%			Overlapping Template	20	20	100.00%	
	Universal Test	20	20	100.00%			Universal Test	20	20	100.00%	
	Linear Complexity	20	19	95.00%			Linear Complexity	20	20	100.00%	
	Serial Test (both)	40	40	100.00%			Serial Test (both)	40	39	97.50%	
	Approximate Entropy	20	17	85.00%			Approximate Entropy	20	20	100.00%	
	Cumulative Sums (Forward)	20	0	0.00%			Cumulative Sums (Forward)	20	20	100.00%	
	Cumulative Sums (Reverse)	20	0	0.00%			Cumulative Sums (Reverse)	20	20	100.00%	
	time						time				
	Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
	300	210	90	70.00%			300	297	3	99.00%	
	Test Name	Number Tested	Passed	Rate			Test Name	Number Tested	Passed	Rate	
	Frequency Test	20	0	0.00%			Frequency Test	20	20	100.00%	
	Block Frequency Test	20	20	100.00%			Block Frequency Test	20	20	100.00%	
	Runs Test	20	0	0.00%			Runs Test	20	20	100.00%	
	Longest Run of Ones	20	20	100.00%			Longest Run of Ones	20	20	100.00%	
	Binary Matrix Rank	20	19	95.00%			Binary Matrix Rank	20	20	100.00%	
	Spectral Test	20	20	100.00%			Spectral Test	20	20	100.00%	
	Non-overlapping Template	20	16	80.00%			Non-overlapping Template	20	20	100.00%	
	Overlapping Template	20	20	100.00%			Overlapping Template	20	19	95.00%	
	Universal Test	20	20	100.00%			Universal Test	20	20	100.00%	
	Linear Complexity	20	20	100.00%			Linear Complexity	20	20	100.00%	
	Serial Test (both)	40	39	97.50%			Serial Test (both)	40	40	100.00%	
	Approximate Entropy	20	16	80.00%			Approximate Entropy	20	19	95.00%	
	Cumulative Sums (Forward)	20	0	0.00%			Cumulative Sums (Forward)	20	20	100.00%	
	Cumulative Sums (Reverse)	20	0	0.00%			Cumulative Sums (Reverse)	20	19	95.00%	
	urand						urand				
	Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
	300	213	87	71.00%			300	297	3	99.00%	
	Test Name	Number Tested	Passed	Rate			Test Name	Number Tested	Passed	Rate	
	Frequency Test	20	0	0.00%			Frequency Test	20	20	100.00%	
	Block Frequency Test	20	20	100.00%			Block Frequency Test	20	18	90.00%	
	Runs Test	20	0	0.00%			Runs Test	20	19	95.00%	
	Longest Run of Ones	20	20	100.00%			Longest Run of Ones	20	20	100.00%	
	Binary Matrix Rank	20	20	100.00%			Binary Matrix Rank	20	20	100.00%	
	Spectral Test	20	19	95.00%			Spectral Test	20	20	100.00%	
	Non-overlapping Template	20	17	85.00%			Non-overlapping Template	20	20	100.00%	
	Overlapping Template	20	19	95.00%			Overlapping Template	20	20	100.00%	
	Universal Test	20	19	95.00%			Universal Test	20	20	100.00%	
	Linear Complexity	20	20	100.00%			Linear Complexity	20	20	100.00%	
	Serial Test (both)	40	40	100.00%			Serial Test (both)	40	40	100.00%	
	Approximate Entropy	20	19	95.00%			Approximate Entropy	20	20	100.00%	
	Cumulative Sums (Forward)	20	0	0.00%			Cumulative Sums (Forward)	20	20	100.00%	
	Cumulative Sums (Reverse)	20	0	0.00%			Cumulative Sums (Reverse)	20	20	100.00%	

			Multiplier	Increment	Modulus						
	LCG LSB 128			1	2 ¹²⁸ - 1		BBS				
	Total						Total				
	Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
	900	887	13	98.56%			900	886	14	98.44%	
	Test Name	Number Tested	Passed	Rate			Test Name	Number Tested	Passed	Rate	
	Frequency Test	60	58	96.67%			Frequency Test	60	59	98.33%	
	Block Frequency Test	60	60	100.00%			Block Frequency Test	60	60	100.00%	
	Runs Test	60	60	100.00%			Runs Test	60	59	98.33%	
	Longest Run of Ones	60	60	100.00%			Longest Run of Ones	60	60	100.00%	
	Binary Matrix Rank	60	58	96.67%			Binary Matrix Rank	60	59	98.33%	
	Spectral Test	60	60	100.00%			Spectral Test	60	58	96.67%	
	Non-overlapping Template	60	57	95.00%			Non-overlapping Template	60	57	95.00%	
	Overlapping Template	60	60	100.00%			Overlapping Template	60	60	100.00%	
	Universal Test	60	59	98.33%			Universal Test	60	58	96.67%	
	Linear Complexity	60	60	100.00%			Linear Complexity	60	60	100.00%	
	Serial Test (both)	120	117	97.50%			Serial Test (both)	120	118	98.33%	
	Approximate Entropy	60	60	100.00%			Approximate Entropy	60	60	100.00%	
	Cumulative Sums (Forward)	60	59	98.33%			Cumulative Sums (Forward)	60	59	98.33%	
	Cumulative Sums (Reverse)	60	59	98.33%			Cumulative Sums (Reverse)	60	59	98.33%	
	rand						rand				
	Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
	300	296	4	98.67%			300	293	7	97.67%	
	Test Name	Number Tested	Passed	Rate			Test Name	Number Tested	Passed	Rate	
	Frequency Test	20	18	90.00%			Frequency Test	20	19	95.00%	
	Block Frequency Test	20	20	100.00%			Block Frequency Test	20	20	100.00%	
	Runs Test	20	20	100.00%			Runs Test	20	20	100.00%	
	Longest Run of Ones	20	20	100.00%			Longest Run of Ones	20	20	100.00%	
	Binary Matrix Rank	20	20	100.00%			Binary Matrix Rank	20	19	95.00%	
	Spectral Test	20	20	100.00%			Spectral Test	20	19	95.00%	
	Non-overlapping Template	20	20	100.00%			Non-overlapping Template	20	19	95.00%	
	Overlapping Template	20	20	100.00%			Overlapping Template	20	20	100.00%	
	Universal Test	20	20	100.00%			Universal Test	20	19	95.00%	
	Linear Complexity	20	20	100.00%			Linear Complexity	20	20	100.00%	
	Serial Test (both)	40	40	100.00%			Serial Test (both)	40	40	100.00%	
	Approximate Entropy	20	20	100.00%			Approximate Entropy	20	20	100.00%	
	Cumulative Sums (Forward)	20	19	95.00%			Cumulative Sums (Forward)	20	19	95.00%	
	Cumulative Sums (Reverse)	20	19	95.00%			Cumulative Sums (Reverse)	20	19	95.00%	
	time						time				
	Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
	300	296	4	98.67%			300	297	3	99.00%	
	Test Name	Number Tested	Passed	Rate			Test Name	Number Tested	Passed	Rate	
	Frequency Test	20	20	100.00%			Frequency Test	20	20	100.00%	
	Block Frequency Test	20	20	100.00%			Block Frequency Test	20	20	100.00%	
	Runs Test	20	20	100.00%			Runs Test	20	19	95.00%	
	Longest Run of Ones	20	20	100.00%			Longest Run of Ones	20	20	100.00%	
	Binary Matrix Rank	20	19	95.00%			Binary Matrix Rank	20	20	100.00%	
	Spectral Test	20	20	100.00%			Spectral Test	20	19	95.00%	
	Non-overlapping Template	20	19	95.00%			Non-overlapping Template	20	19	95.00%	
	Overlapping Template	20	20	100.00%			Overlapping Template	20	20	100.00%	
	Universal Test	20	20	100.00%			Universal Test	20	20	100.00%	
	Linear Complexity	20	20	100.00%			Linear Complexity	20	20	100.00%	
	Serial Test (both)	40	38	95.00%			Serial Test (both)	40	40	100.00%	
	Approximate Entropy	20	20	100.00%			Approximate Entropy	20	20	100.00%	
	Cumulative Sums (Forward)	20	20	100.00%			Cumulative Sums (Forward)	20	20	100.00%	
	Cumulative Sums (Reverse)	20	20	100.00%			Cumulative Sums (Reverse)	20	20	100.00%	
	urand						urand				
	Total Tests	Passed	Failed	Rate			Total Tests	Passed	Failed	Rate	
	300	295	5	98.33%			300	296	4	98.67%	
	Test Name	Number Tested	Passed	Rate			Test Name	Number Tested	Passed	Rate	
	Frequency Test	20	20	100.00%			Frequency Test	20	20	100.00%	
	Block Frequency Test	20	20	100.00%			Block Frequency Test	20	20	100.00%	
	Runs Test	20	20	100.00%			Runs Test	20	20	100.00%	
	Longest Run of Ones	20	20	100.00%			Longest Run of Ones	20	20	100.00%	
	Binary Matrix Rank	20	19	95.00%			Binary Matrix Rank	20	20	100.00%	
	Spectral Test	20	20	100.00%			Spectral Test	20	20	100.00%	
	Non-overlapping Template	20	18	90.00%			Non-overlapping Template	20	19	95.00%	
	Overlapping Template	20	20	100.00%			Overlapping Template	20	20	100.00%	
	Universal Test	20	19	95.00%			Universal Test	20	19	95.00%	
	Linear Complexity	20	20	100.00%			Linear Complexity	20	20	100.00%	
	Serial Test (both)	40	39	97.50%			Serial Test (both)	40	38	95.00%	
	Approximate Entropy	20	20	100.00%			Approximate Entropy	20	20	100.00%	
	Cumulative Sums (Forward)	20	20	100.00%			Cumulative Sums (Forward)	20	20	100.00%	
	Cumulative Sums (Reverse)	20	20	100.00%			Cumulative Sums (Reverse)	20	20	100.00%	