

5-RANDOM PAGE FROM A MILLION RANDOM DIGITS
(WITH 100,000 NORMAL DEVIATES)

TABLE OF RANDOM DIGITS

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13300	71697	84395	91705	58188	67452	80847	71128	46973	15992	97747
13301	35739	01715	66192	27218	74026	19270	24706	08000	69662	18064
13302	79403	11945	10260	53954	59918	73014	09431	33324	55821	32309
13303	43287	62243	35804	35245	84321	72384	00122	64516	27241	95803
13304	27301	52127	04924	45355	69884	63401	27852	68143	26367	15500
13305	73808	13547	94767	16877	99037	23335	04648	25835	16787	40873
13306	96818	50168	99701	04633	62496	93835	09270	37256	77615	10454
13307	16060	57724	82092	50495	41834	14154	21618	00999	78680	73308
13308	27046	25046	87192	15077	00268	94098	65690	39876	62144	87435
13309	48505	20660	90682	59018	90236	03236	86001	05408	36975	68606
13310	59033	86705	65910	58500	27531	79960	35790	25009	95852	89419
13311	38037	61410	60515	44512	14600	67952	32878	27261	30453	16630
13312	31996	49725	10172	77184	27277	71306	42951	59626	99940	59098
13313	12668	91233	88787	59535	49642	84125	05679	42127	15690	00370
13314	19160	29346	93245	84815	11543	07769	48415	91665	42586	80304
13315	21637	27788	51842	38511	03525	60016	34857	90686	39202	91632
13316	51113	23525	64349	56773	17907	37489	44219	87051	21017	50955
13317	96047	45107	37319	31059	40345	65414	82007	45383	21791	26460
13318	52531	72695	12560	09520	21023	41753	12336	38114	44918	82150
13319	52891	45252	02577	80275	11178	68593	78207	35104	21405	46166
13320	81988	90968	54114	92531	98125	90247	42142	22189	94485	14363
13321	76282	11043	02218	35497	83924	01429	64932	66931	29280	52849
13322	28702	51106	89848	02546	52539	17681	00262	35208	16332	65716
13323	74963	59244	74394	30052	37935	68531	41029	60917	79866	26512
13324	25123	86332	59738	55438	56053	58803	12775	72656	18529	25090
13325	01027	79775	37666	16816	71697	99021	24676	25916	58558	76849
13326	76378	25003	59725	66505	41450	58874	35674	75313	88516	52018
13327	82302	38174	73793	13159	21180	38425	81352	11464	01761	32357
13328	86443	56206	90218	98785	92430	33004	54651	11512	66613	48970
13329	30224	37414	02926	45499	91692	04396	04984	16874	75919	17504
13330	26539	47073	29754	00982	44265	62551	10824	86463	19247	65690
13331	03643	53529	11430	95645	72943	24475	76795	71817	75517	63344
13332	68498	69345	46554	09903	19054	57996	65323	27796	93981	74804
13333	25031	35246	85213	06681	53858	28752	02218	02726	52187	44077
13334	51664	98609	48290	20914	02946	59144	34025	07166	62568	65912
13335	59570	09001	40484	77932	97256	38756	23982	09885	00896	50389
13336	01925	11981	42809	09625	70639	02505	00711	91376	70697	01669
13337	73148	44748	61150	43328	48033	77415	83811	55755	42436	84540
13338	98851	61614	07571	37791	80094	62994	88640	79680	82716	23483
13339	10168	38203	18288	86384	36804	01865	83627	57148	16850	81053
13340	31050	73000	52752	49807	27295	57224	50371	97555	20876	46263
13341	46155	91045	03033	28469	40065	09597	05488	65163	18308	06694
13342	38560	02861	16097	25428	38168	20369	63582	54261	11156	17843
13343	90666	06547	05117	13076	85568	10835	23817	07933	28951	03939
13344	64122	27975	46798	92347	52031	98236	26392	37653	59724	49577
13345	70100	58026	34226	36441	62150	18683	69024	36681	29199	84694
13346	96245	22660	22274	16722	30621	30035	25347	78369	28181	97784
13347	89627	99474	65841	87477	03964	01170	65620	39097	97428	96616
13348	56832	55686	65531	59171	01300	52802	91762	40164	82533	47894
13349	50240	04386	14679	12478	24005	83447	64196	84605	33379	41740

5-RANDOM PAGE FROM A MILLION RANDOM DIGITS (WITH 100,000 NORMAL DEVIATES)

Just after World War II, the RAND Corporation was quietly working on a massive book of numbers. A Million Random Digits (With 100,000 Normal Deviates) was published by The Free Press in 1955 after almost ten years of meticulous production. The volume is comprised of page after page of numbers mathematical tables filled with random digits. (A typical page (picked at random) from the 1966 printing is reproduced on the cover of this bulletin.) The random number bible has passed through three editions, multiple printings, and is currently available as both a soft formal paperback book and as a text data file downloadable directly from RAND. [...]

Producing a random digit is complex. To make the tables in A Million Random Digits, RAND engineers created an electronic roulette wheel with 32 possible values by measuring the decay of a radioactive molecule gated by a constant frequency pulse. These regular electric signals (either on or off, 100,000 times a second for 10 seconds) were run through a five digit binary counter to produce a 5-bit number with 32 possible values. The binary number was converted to decimal and only the final digit was retained to create the 1,000,000 random digits. These values were fed into an IBM punch machine to produce 20,000 computer punch cards with 50 digits each. (Punch cards were then the only practical way to both store and input information into a digital computer.)

However, when analyzing this first attempt, RAND engineers detected a bias. Employing a standard statistical goodness-of-fit test to measure the data's conformity to a bell shaped or "normal" curve, the sampled numbers did not match closely enough to the normal distribution of values which would indicate purely random digits. Each number was added modulo 10 (divide by 10 and use only the remainder) to the corresponding digit on the previous card to yield a new set of random values with an almost perfectly normal distribution.

Random digit tables were then printed on an IBM 856 Cardatype and reproduced as pages for the book. Proofreading was redundant given the nature of the information.

– "A Million Random Digits," David Reinfurt, Bulletins of The Serving Library #3, 2012

RAND Corporation,
Random page from a million random digits (with
100,000 normal deviates), 1955
(this page from the 1966 edition), 35 x 27.5 cm