

Creative Computing Benchmark

The Creative Computing benchmark is a short test of computational speed, accuracy, and the random number generator in Basic. Computers in the chart are listed in ascending order of completion time of the test expressed in minutes and seconds. In the accuracy measure, the smaller the number the better (.0000001 is excellent while .187805 is poor). In the randomness measure, smaller is better (numbers under 15 are good and over 15 are fair).

Since running the short article about the benchmark test, we have been overwhelmed with responses from readers who ran the test on machines not listed in our original table. With letters still pouring in, here are the results for 107 different computers.

We have taken note of the criticisms of this simple test and are in the process of devising a more comprehensive one. Watch for a follow-up article. —DHA

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10 ' Ahl's Simple Benchmark
20 FOR N=1 TO 100: A=N
30 FOR I=1 TO 10
40 A=SQR(A): R=R+RND(1)
50 NEXT I
60 FOR I=1 TO 10
70 A=A^2: R=R+RND(1)
80 NEXT I
90 S=S+A: NEXT N
100 PRINT ABS(1010-S/5)
110 PRINT ABS(1000-R)
  
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Computer	Time	Accuracy	Random	Computer	Time	Accuracy	Random
DEC VAX 11/780	0:01	.0113525	5.3	NEC PC-8001A	1:29	.0338745	3.0
DEC VAX 11/780 (double)	0:015	.00000000163283	5.3	Atari 800 (MBasic)	1:35	.150879	2.1
HP 9845B (390 bit slice)	0:03	.00000882	23.1	Kaypro II	1:36	.187805	7.5
Control Data Cyber 730	0:03	.00000000355	6.1	Sony SMC-70	1:37	.0000000458	3.8
Amdahl 470	0:04	.0000000011846	12.4	HP-75C	1:38	.00000002	5.8
HP 3000 Series 44	0:04	.112549	12.9	North Star Horizon(10 dig)	1:41	.000473	3.6
HP 9836	0:05	.000000000127329	5.5	NEC PC-8201	1:44	.187805	9.3
Wang 2200 SVP	0:05	.000000076	3.9	MicroOffice RoadRunner	1:48	.187805	7.4
Stearns Micro	0:08	.005859375	7.1	Teleram 3000	1:48	.187805	7.4
Burroughs B20	0:09	.005938744544977	3.2	Apple III	1:48	.011914	6.7
Alpha Micro AM 100T	0:10	.00000387337	12.4	Vic 20	1:49	.0010414235	23.7
Burroughs B22	0:12	.005859375	15.7	HP 9830B	1:52	.00000889	13.1
NEC Adv Pers Comp	0:12	.005859375	7.2	Commodore 64	1:53	.0010414235	8.9
Tektronix 4054	0:12	.000000014042598	8.5	Apple II plus	1:53	.0010414235	12.0
Olivetti M20	0:13	.0114136	6.2	Apple IIe	1:53	.0010414235	12.0
Saybrook 68000 (in Apple)	0:13	.0000000011	10.4	NEC PC-8801A	1:54	.187805	7.4
TI Professional	0:15	.005859375	7.1	Rockwell Aim 65	1:56	.00104141235	14.7
Compaq	0:15	.005859375	7.1	CompuColor II	1:57	.0338745	1.4
HP 9845B	0:15	.00000882	23.1	TRS-80 Model III	1:59	.0338745	5.8
Zenith Z-100 (8088)	0:17	.005859375	9.7	Micro Color Computer	1:59	.000596284867	7.6
ACT Apricot	0:18	.005859375	7.2	Commodore CBM 8032, 2001	2:01	.0010414235	1.4
Sharp PC-5000	0:18	.005859375	7.2	Heath/Zenith H-89A	2:04	.187805	7.4
Eagle PC-2	0:19	.005859375	7.2	Atari 2600 Graduate	2:15	.000224679708	7.9
DEC Rainbow 100	0:20	.005859375	7.2	TRS-80 Model I	2:19	.0338745	12.0
Acorn BBC Computer	0:21	.0000128746033	5.2	Color Computer	2:23	.000596284867	7.3
Columbia MPC	0:21	.005859375	7.2	Atari 800 (fastchip)	2:23	.006875	7.0
Computer Devices DOT	0:22	.005859375	7.1	Dragon 32	2:29	.000596284867	7.3
IBM PC	0:24	.01159668	6.3	Epson HX-20	2:36	.0338745	23.8
GCE Vectrex	0:33	.0753174	0.9	Timex/Sinclair 1000 (fast)	2:43	.00041294098	8.7
TI DS990/12 (Mini TS)	0:36	.0000000388	3.1	Interact Model R	2:50	.0338745	8.1
Laser 2001	0:40	.0003272295	17.4	Wang 2210	2:52	.000011432	12.5
Memotech MX-512	0:46	.000252962112	6.9	OSI Challenger 1	3:07	.0010414235	13.9
HP 9020C	0:48	.000000000127329	23.2	SpectraVideo 318/328	3:40	.0000002058	0.7
Lobo Max-80	0:48	.0338745	5.8	TI 99/4A	3:46	.00000011	2.6
Lynx	0:51	.155	14.1	Radio Shack PC-3	4:00	.00000627	10.9
TRS-80 Model 4	0:53	.0670776	6.5	TI 99/4A, Extended	4:10	.00000011	10.7
Panasonic JR200	0:57	.00021481514	15.1	Oric-1	4:10	.00104141235	12.1
SCS 100	0:59	.187805	7.4	Datapoint 1800	4:16	.0000012042	11.3
IMS 8000	0:59	.187805	9.6	Sinclair ZX81	4:23	.0006685257	6.3
Alspa ACI-1	0:59	.187805	7.4	Sinclair Spectrum	4:39	.0006685257	3.5
DECmate II	0:59	.187805	7.4	TRS-80 Model 100	4:54	.0000002058	0.7
Xerox 820-II	0:59	.187805	7.4	Casio FP-200	5:05	.00723	30.3
Vector Graphic 3 VIP	1:04	.0338745	7.5	Sharp PC-1500 (RS PC-2)	5:10	.0000288	7.8
Zenith Z-100 (8085)	1:04	.187805	9.5	TI CC-40	5:41	.00000011	6.2
Toshiba T100	1:09	.187805	7.4	Sanyo PHC-25	5:41	.000267505646	10.2
Epson QX-10	1:09	.187805	7.4	Canon X-07	6:03	.0000002058	24.9
Osborne O1	1:10	.187805	7.4	Atari 1200XL	6:45	.013959	5.2
Mattel Aquarius	1:17	.187805	10.0	Atari 400/800	6:48	.012959	22.8
Epson QX-10	1:18	.187805	7.4	Sharp PC-1250	11:14	.0000288	5.9
HP-85A	1:20	.00000002	5.8	Timex/Sinclair 1000(slow)	16:55	.00041294098	7.4
Morrow MD3 (Basic 10)	1:21	.000473	3.6	IBM System 23	19:00	.00000005503	3.4
HP-86A	1:25	.00000002	5.8	HP-97	23:00	.000034	---
Tektronix 4051	1:26	.000000014042598	8.1	Sharp PC-1211	28:32	.00002882	---
Digital Group Bytemaster1	1:27	.000000279	3.6				