

One-Sample Runs Test for Randomness

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Test-specific data preparation and execution

>Warning # 4492 on line 157 in column 42. Text: internet_bin
>The (ADD) VALUE LABELS command included a symbol other than a value where a
>value (either numeric or string) was expected. For compatibility with
>previous systems, a parenthesized value would have been acceptable. All valu
e
>labels up to the next slash will be ignored.

One-sample runs test

>Warning # 2004 on line 161. Command name: SUBTITLE

>The subtitle given exceeds 60 characters in length. The first 60 characters
>will be used.

One-sample runs test
Row-order randomness of G3 observations around the sample me

NPar Tests

Notes

Output Created		16-JUL-2026 17:14:41
Comments		
Input	Data	D:\DATA ANALYSIS\J Nonparametric Tests\Runs Test\dataset.csv
	Active Dataset	RunsTestData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable (s) used in that test.
Syntax		NPAR TESTS /RUNS (MEDIAN)=G3 /STATISTICS=DESCRIPT IVES QUARTILES.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01
	Number of Cases Allowed ^a	786432

a. Based on availability of workspace memory.

[RunsTestData]

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles	
						25th	50th (Median)
G3	649	11.91	3.231	0	19	10.00	12.00

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Descriptive Statistics

	Percentiles
	75th
G3	14.00

Runs Test

G3	
Test Value ^a	12
Cases < Test Value	301
Cases >= Test Value	348
Total Cases	649
Number of Runs	253
Z	-5.592
Asymp. Sig. (2-tailed)	.000

a. Median

Frequencies

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Notes

Output Created		16-JUL-2026 17:14:42
Comments		
Input	Data	D:\DATA ANALYSIS\J Nonparametric Tests\Runs Test\dataset.csv
	Active Dataset	RunsTestData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=G3 /STATISTICS=MEAN MEDIAN MIN MAX /HISTOGRAM.
Resources	Processor Time	00:00:02.45
	Elapsed Time	00:00:01.50

Statistics

G3

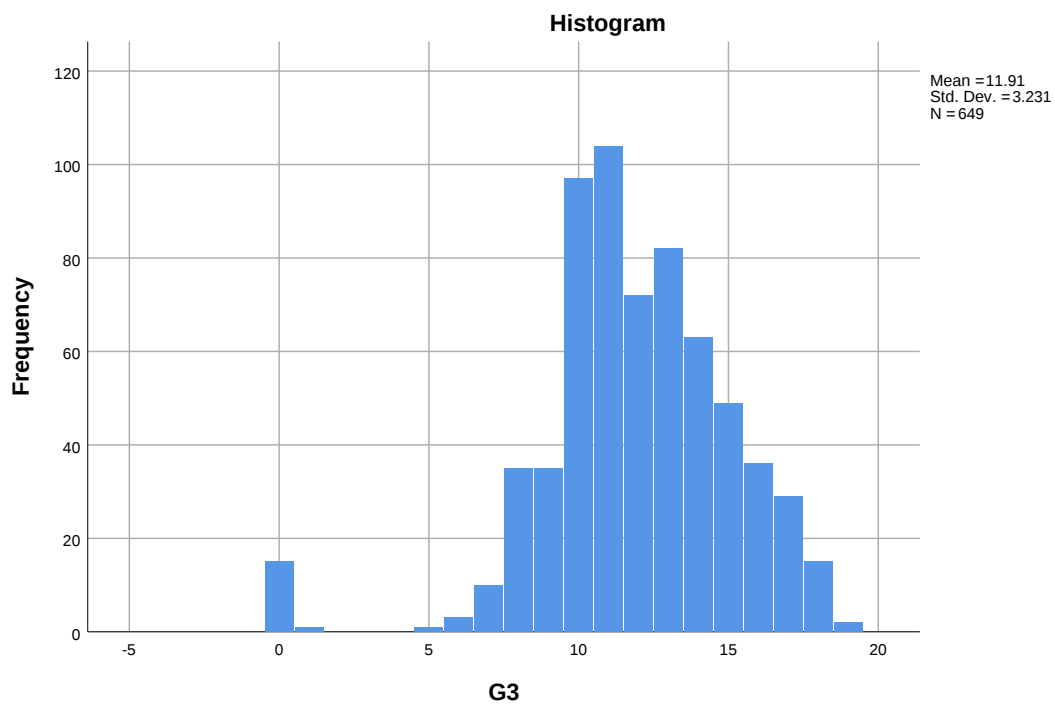
N	Valid	649
	Missing	0
Mean		11.91
Median		12.00
Minimum		0
Maximum		19

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G3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	15	2.3	2.3	2.3
	1	1	.2	.2	2.5
	5	1	.2	.2	2.6
	6	3	.5	.5	3.1
	7	10	1.5	1.5	4.6
	8	35	5.4	5.4	10.0
	9	35	5.4	5.4	15.4
	10	97	14.9	14.9	30.4
	11	104	16.0	16.0	46.4
	12	72	11.1	11.1	57.5
	13	82	12.6	12.6	70.1
	14	63	9.7	9.7	79.8
	15	49	7.6	7.6	87.4
	16	36	5.5	5.5	92.9
	17	29	4.5	4.5	97.4
	18	15	2.3	2.3	99.7
	19	2	.3	.3	100.0
	Total	649	100.0	100.0	

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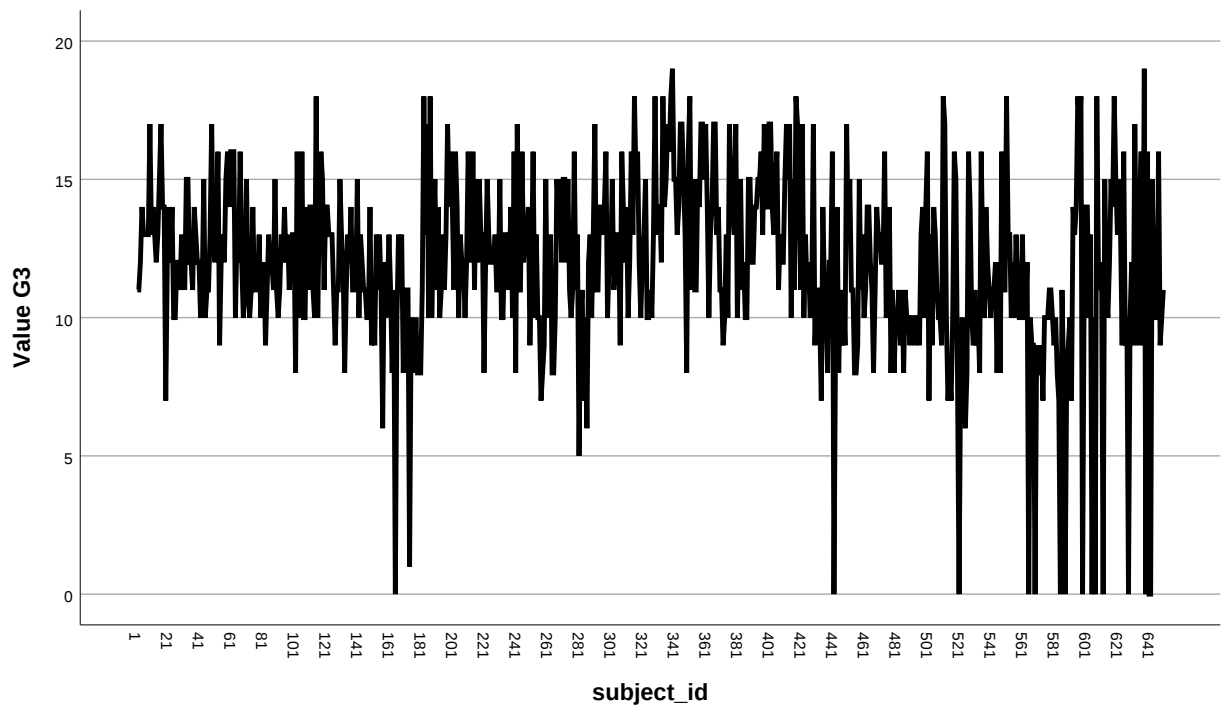


Graph

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Notes

Output Created		16-JUL-2026 17:14:43
Comments		
Input	Data	D:\DATA ANALYSIS\J Nonparametric Tests\Runs Test\dataset.csv
	Active Dataset	RunsTestData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Syntax		GRAPH /LINE(SIMPLE) =VALUE(G3) BY subject_id.
Resources	Processor Time	00:00:03.41
	Elapsed Time	00:00:01.13



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```
>Warning # 5334 on line 165.  Command name: SAVE  
>The SAVE command has succeeded.  However, due to contention for the specified  
>file, the data have been saved to a file with a different name.  
>Saved to D:\DATA ANALYSIS\J Nonparametric Tests\Runs Test\SPSS_Output\sav\run  
s-test_spss_ready_data_1.sav.
```

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```

ONE-SAMPLE RUNS TEST FOR RANDOMNESS

Formula: $E(R)=1+2n_{0n_1}/N$; $Var(R)=2n_{0n_1}(2n_{0n_1}-N)/[N^2(N-1)]$

Variables: ordered G3 sequence

above_count = 276

below_count = 301

expected_runs = 288.95840554592723

median = 12.0

p_value = 1.3051091861674735e-06

runs = 231

ties_removed = 72

variance = 143.4584807621645

z_statistic = -4.838974301928715

Cross-check status: pass

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```