

Poker Cards Analysis – February 2026

The Directors

Entain Plc

This is to confirm that iTech Labs has examined the game logs for Poker games for the period **February 01, 2026, to February 28, 2026**, as recorded by the respective game servers and analyzed the Poker cards for statistical randomness. The results of the analysis are given below.

For details on the gaming sites serviced by the Entain Plc game servers and used in this audit refer to the [List](#).

1. Poker hand types statistics

These calculations were done for Royal Flush, Straight Flush, Four of a Kind, Full House, Flush, Straight, 3 of a Kind, 2 pairs, 1 Pair, High Card.

The Poker hand types analysis involved creating subsets of data and conducting Chi-square tests on each subset.

The null hypothesis for the chi-square test is that the observed frequencies of each type of hand matches the theoretical values for a deck that has been shuffled using a perfect random number generator. The p-values observed in these multiple tests are expected to follow a uniform distribution for the range 0.0 to 1.0.

The analysis performs a KS Test (Kolmogorov-Smirnov test) for uniform distribution on the observed p-values, and the combined p-value result of this test is taken as the final result of the Poker hand types statistics tests.

1.1 Poker hand types statistics for 52 cards deck:

Test No.	DOF	ChiSqr	P-Value
1	9	13.87	0.12706
2	9	3.11	0.95980
3	9	7.07	0.62965
4	9	11.78	0.22603
5	9	7.65	0.56977
6	9	17.97	0.03550
7	9	8.34	0.50018
8	9	5.71	0.76901
9	9	3.63	0.93409
10	9	9.94	0.35572
11	9	7.47	0.58833
12	9	4.03	0.90966
13	9	5.77	0.76265

Test No.	DOF	ChiSqr	P-Value
14	9	5.81	0.75865
15	9	8.04	0.52998
16	9	11.38	0.25053
17	9	7.89	0.54493
18	9	8.50	0.48464
19	9	7.42	0.59398
20	9	9.45	0.39715
21	9	6.86	0.65193
22	9	15.99	0.06713
23	9	5.24	0.81282
24	9	21.60	0.01025
25	9	4.57	0.87022
26	9	5.42	0.79667
27	9	15.49	0.07824
28	9	4.58	0.86925
29	9	5.24	0.81292
30	9	11.61	0.23613
31	9	10.80	0.28933
32	9	10.63	0.30208
33	9	14.77	0.09749
34	9	3.66	0.93251
35	9	4.75	0.85589
36	9	6.89	0.64878
37	9	4.39	0.88418
38	9	3.71	0.92973
39	9	7.12	0.62452
40	9	10.32	0.32537
41	9	3.65	0.93273
42	9	6.15	0.72479
43	9	8.06	0.52789
44	9	13.66	0.13510

Test No.	DOF	ChiSqr	P-Value
45	9	9.47	0.39533
46	9	19.15	0.02398
47	9	11.07	0.27102
48	9	4.48	0.87701
49	9	4.87	0.84541
50	9	8.35	0.49968
51	9	7.81	0.55323
52	9	9.27	0.41239
53	9	9.66	0.37876
54	9	8.04	0.53061
55	9	22.33	0.00789
56	9	34.84	0.00006
57	9	6.59	0.67931
58	9	9.54	0.38907
59	9	2.02	0.99118
60	9	11.37	0.25143
61	9	4.60	0.86797
62	9	4.54	0.87276
63	9	12.20	0.20222
64	9	11.81	0.22409
65	9	11.33	0.25367
66	9	7.79	0.55585
67	9	10.16	0.33736
68	9	8.24	0.50981
69	9	14.29	0.11245
70	9	8.21	0.51332
71	9	6.96	0.64131
72	9	7.65	0.56939
73	9	9.85	0.36285
74	9	6.21	0.71863
75	9	32.04	0.00020

Test No.	DOF	ChiSqr	P-Value
76	9	9.04	0.43313
77	9	3.69	0.93073
78	9	6.04	0.73541
79	9	11.84	0.22224
80	9	11.64	0.23408
81	9	4.52	0.87410
82	9	11.85	0.22188
83	9	1.58	0.99653
84	9	5.14	0.82220
85	9	9.50	0.39247
86	9	6.02	0.73836
87	9	5.56	0.78261
88	9	6.27	0.71268
89	9	8.27	0.50751
90	9	15.60	0.07581
91	9	4.35	0.88680
92	9	5.88	0.75204
93	9	6.15	0.72512
94	9	30.45	0.00037
95	9	5.18	0.81799
96	9	8.29	0.50551
97	9	6.38	0.70134
98	9	5.27	0.81021
99	9	11.73	0.22895
100	9	11.52	0.24200
Combined P-value for all tests (Using KS method)			0.38105

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

2. Poker rank statistics

The Poker rank analysis aims to establish that the rank of the cards in each position was equally distributed in one of the 13 possible ranks (2, 3, 4, 5, 6, 7, 8, 9, 10, J, Q, K, A) for a 52 card deck.

The Poker rank analysis involved creating subsets of data and conducting Chi-square tests on each subset. The analysis performs a KS Test (Kolmogorov-Smirnov test) for uniform distribution on the observed p-values, and the combined p-value result of this test is taken as the final result of the Ranks statistics tests.

2.1 Poker rank statistics for 52 cards deck:

Test No.	DOF	ChiSqr	P-Value
1	84	110.32	0.02865
2	84	102.82	0.07984
3	84	89.31	0.32549
4	84	72.77	0.80410
5	84	114.20	0.01587
6	84	54.19	0.99526
7	84	85.16	0.44409
8	84	76.87	0.69668
9	84	76.59	0.70469
10	84	62.96	0.95820
11	84	72.97	0.79945
12	84	69.48	0.87288
13	84	89.13	0.33037
14	84	98.87	0.12785
15	84	71.17	0.83971
16	84	83.46	0.49603
17	84	97.89	0.14266
18	84	68.56	0.88897
19	84	76.05	0.71969
20	84	116.41	0.01111
21	84	94.13	0.21102
22	84	85.02	0.44836
23	84	88.69	0.34204
24	84	77.86	0.66772
25	84	74.01	0.77392
26	84	73.87	0.77741
27	84	77.92	0.66609
28	84	75.76	0.72766

Test No.	DOF	ChiSqr	P-Value
29	84	61.41	0.96972
30	84	102.62	0.08179
31	84	82.85	0.51486
32	84	86.54	0.40323
33	84	82.84	0.51524
34	84	103.89	0.06963
35	84	96.97	0.15770
36	84	83.65	0.49024
37	84	74.75	0.75479
38	84	95.99	0.17492
39	84	83.59	0.49216
40	84	93.85	0.21681
41	84	78.40	0.65191
42	84	90.71	0.28926
43	84	87.87	0.36497
44	84	64.11	0.94769
45	84	71.63	0.82989
46	84	92.49	0.24649
47	84	82.86	0.51465
48	84	98.81	0.12879
49	84	79.27	0.62554
50	84	78.49	0.64909
51	84	67.60	0.90426
52	84	82.53	0.52505
53	84	72.24	0.81637
54	84	99.52	0.11875
55	84	86.66	0.39965
56	84	80.06	0.60155
57	84	99.87	0.11395
58	84	77.84	0.66857
59	84	81.29	0.56348

Test No.	DOF	ChiSqr	P-Value
60	84	76.18	0.71608
61	84	59.98	0.97797
62	84	97.20	0.15373
63	84	60.70	0.97409
64	84	74.68	0.75665
65	84	87.16	0.38516
66	84	95.55	0.18301
67	84	71.58	0.83088
68	84	73.37	0.78984
69	84	88.37	0.35099
70	84	84.07	0.47720
71	84	88.21	0.35553
72	84	92.72	0.24138
73	84	84.89	0.45226
74	84	90.88	0.28500
75	84	105.65	0.05531
76	84	108.28	0.03852
77	84	81.78	0.54823
78	84	122.04	0.00426
79	84	72.64	0.80706
80	84	66.06	0.92571
81	84	77.54	0.67720
82	84	90.81	0.28663
83	84	95.67	0.18064
84	84	69.30	0.87603
85	84	91.40	0.27233
86	84	81.94	0.54332
87	84	74.93	0.75003
88	84	102.51	0.08293
89	84	61.43	0.96962
90	84	82.42	0.52826

Test No.	DOF	ChiSqr	P-Value
91	84	95.18	0.19003
92	84	71.98	0.82211
93	84	87.20	0.38396
94	84	72.76	0.80432
95	84	95.92	0.17606
96	84	77.63	0.67453
97	84	77.79	0.66992
98	84	124.15	0.00291
99	84	73.97	0.77493
100	84	75.84	0.72538
Combined P-value for all tests (Using KS method)			0.71132

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

3. Poker suits statistics

The Poker suits analysis aims to verify that the cards dealt exhibit an equal probability of all 4 suits (Clubs, Diamonds, Hearts and Spades) in all positions.

The Poker suits analysis involved creating subsets of data and conducting Chi-square tests on each subset. The analysis performs a KS Test (Kolmogorov-Smirnov test) for uniform distribution on the observed p-values, and the combined p-value result of this test is taken as the final result of the Suits statistics tests.

3.1 Poker suits statistics for 52 cards deck:

Test No.	Positions	DOF	ChiSqr	P-Value
1	7	21	31.82	0.06110
2	7	21	32.93	0.04697
3	7	21	24.33	0.27758
4	7	21	17.89	0.65599
5	7	21	26.47	0.18899
6	7	21	29.70	0.09828
7	7	21	16.77	0.72495
8	7	21	20.09	0.51552
9	7	21	16.21	0.75764
10	7	21	15.62	0.79049
11	7	21	14.05	0.86749

Test No.	Positions	DOF	ChiSqr	P-Value
12	7	21	11.78	0.94534
13	7	21	21.14	0.45045
14	7	21	21.14	0.45066
15	7	21	27.16	0.16573
16	7	21	26.73	0.17980
17	7	21	23.21	0.33295
18	7	21	17.79	0.66215
19	7	21	34.14	0.03504
20	7	21	15.26	0.80972
21	7	21	28.10	0.13722
22	7	21	19.41	0.55859
23	7	21	31.05	0.07287
24	7	21	29.40	0.10472
25	7	21	22.18	0.38941
26	7	21	23.31	0.32759
27	7	21	36.38	0.01979
28	7	21	25.12	0.24219
29	7	21	19.51	0.55218
30	7	21	20.57	0.48516
31	7	21	20.24	0.50608
32	7	21	23.34	0.32593
33	7	21	15.48	0.79834
34	7	21	16.69	0.72980
35	7	21	21.26	0.44322
36	7	21	24.33	0.27742
37	7	21	29.49	0.10274
38	7	21	13.44	0.89242
39	7	21	17.81	0.66106
40	7	21	11.64	0.94876
41	7	21	21.59	0.42332
42	7	21	19.50	0.55313

Test No.	Positions	DOF	ChiSqr	P-Value
43	7	21	9.51	0.98463
44	7	21	14.46	0.84891
45	7	21	19.44	0.55721
46	7	21	14.88	0.82897
47	7	21	21.95	0.40245
48	7	21	15.22	0.81192
49	7	21	25.31	0.23395
50	7	21	21.72	0.41575
51	7	21	14.79	0.83348
52	7	21	28.67	0.12214
53	7	21	19.02	0.58399
54	7	21	14.79	0.83345
55	7	21	14.73	0.83627
56	7	21	18.68	0.60551
57	7	21	17.13	0.70305
58	7	21	24.06	0.29020
59	7	21	22.00	0.39935
60	7	21	35.15	0.02718
61	7	21	29.85	0.09514
62	7	21	16.02	0.76826
63	7	21	35.02	0.02810
64	7	21	22.52	0.37029
65	7	21	20.55	0.48690
66	7	21	20.41	0.49569
67	7	21	24.98	0.24786
68	7	21	14.82	0.83203
69	7	21	18.54	0.61493
70	7	21	30.23	0.08750
71	7	21	30.83	0.07662
72	7	21	18.40	0.62332
73	7	21	23.06	0.34065

Test No.	Positions	DOF	ChiSqr	P-Value
74	7	21	15.97	0.77141
75	7	21	27.84	0.14465
76	7	21	31.10	0.07197
77	7	21	17.33	0.69112
78	7	21	29.25	0.10811
79	7	21	18.50	0.61698
80	7	21	29.72	0.09779
81	7	21	18.22	0.63506
82	7	21	20.29	0.50314
83	7	21	27.80	0.14604
84	7	21	19.83	0.53190
85	7	21	16.88	0.71833
86	7	21	35.94	0.02221
87	7	21	31.63	0.06383
88	7	21	17.04	0.70848
89	7	21	26.28	0.19611
90	7	21	16.67	0.73094
91	7	21	19.47	0.55525
92	7	21	36.45	0.01947
93	7	21	19.96	0.52368
94	7	21	14.95	0.82534
95	7	21	30.06	0.09071
96	7	21	25.01	0.24663
97	7	21	21.25	0.44369
98	7	21	9.70	0.98254
99	7	21	17.87	0.65707
100	7	21	20.12	0.51346
Combined P-value for all tests (Using KS method)				0.46448

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

4. Summary of the analysis

4.1 Summary of the analysis of 52 cards deck:

The analysis of 52 cards completes by combining the result of the KS Test performed in the 3 types of analysis (Hand Types, Ranks and Suits) for 52 card decks using the Holm's method and producing a single Combined P -value.

The combined p-value produced using the Holm's method is used as indication for statistical randomness.

Combination of p-values using Holm's Method		
Test	P-Value	P-Adjusted
Ranks Test	0.71132	1.00000
Suits Test	0.46448	1.00000
Hand Types Test	0.38105	1.00000
Combined P-Value using Holm's Method		1.00000

Notes:

1) The combined p-value of all statistical tests using Holm's Method conducted for 52 card decks is greater than the minimum value of 0.05 which indicates that the randomness of the observed data falls within 95% confidence limits. The final outcome of the analysis of 52 cards deck indicates that the RNG is working correctly.

5. Conclusion

Analysis of actual data from game logs for 'Hand Types', 'Ranks' and 'Suits' for **52-card decks** indicated statistical randomness. Since there is no data in the case of 36 card deck, this report does not contain the details of 36 card deck.

iTech Labs has done limited sanity checks to verify the integrity of the game logs. iTech Labs also maintains a copy of the game logs for verification purposes. There were a large enough number of game records to give the calculations sufficient statistical power.

We conclude that the Random Number Generator (RNG) is working correctly.

Signed:



James Boje
Managing Director EMEA
Executive
Date: 01 April 2026
