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10 December 2025

Suresh Yellayi
Entain Operations Limited
Suite 6, Atlantic Suites
Europort Avenue, Gibraltar

Re: Mathematical Analysis of *Poker*

File Number: MA-00-GSV-25-07

Dear Mr. Yellayi,

As per Entain Operations Limited's request, please find **Gaming Laboratories International, LLC's (GLI)** mathematical analysis of Poker:

This is to confirm that GLI has examined the Poker game logs in the gaming system of Entain Plc for the month of **October 2025** as recorded by the respective game servers and analyzed the Poker cards for statistical randomness.

1. Poker

This report only verifies the mathematical aspects of these games and DOES NOT offer an opinion as to whether or not these games are currently authorized for use in any jurisdiction.

Mathematical Analysis

Gaming Laboratories International, LLC (GLI) was requested by Entain Operations Limited to independently calculate the expected payback for the mentioned games and confirm that the returns are within the requirements. On the following page, please find a table containing the summary of our results.

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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	6.31	0.70898
2	9	4.88	0.84499
3	9	7.96	0.53825
4	9	9.75	0.37130
5	9	10.87	0.28503
6	9	3.22	0.95495
7	9	14.09	0.11913
8	9	5.59	0.78038
9	9	5.90	0.75020
10	9	13.26	0.15131
11	9	3.45	0.94366
12	9	4.54	0.87272

Test No.	DOF	ChiSqr	P-Value
13	9	26.55	0.00166
14	9	6.22	0.71783
15	9	14.27	0.11299
16	9	9.87	0.36101
17	9	3.14	0.95833
18	9	6.85	0.65305
19	9	8.09	0.52507
20	9	8.88	0.44838
21	9	13.36	0.14688
22	9	16.09	0.06495
23	9	2.85	0.96988
24	9	6.77	0.66151
25	9	17.42	0.04247
26	9	6.23	0.71629
27	9	7.14	0.62240
28	9	4.24	0.89520
29	9	4.27	0.89263
30	9	17.18	0.04604
31	9	4.71	0.85877
32	9	5.99	0.74141
33	9	21.51	0.01056
34	9	8.75	0.46093
35	9	8.23	0.51110

Test No.	DOF	ChiSqr	P-Value
36	9	7.21	0.61577
37	9	5.16	0.82026
38	9	3.96	0.91425
39	9	3.84	0.92134
40	9	10.43	0.31660
41	9	2.23	0.98726
42	9	10.28	0.32864
43	9	11.26	0.25826
44	9	19.95	0.01825
45	9	5.61	0.77866
46	9	6.59	0.67934
47	9	14.56	0.10370
48	9	7.22	0.61447
49	9	19.00	0.02522
50	9	5.32	0.80571
51	9	14.50	0.10553
52	9	12.84	0.16996
53	9	14.78	0.09730
54	9	4.37	0.88547
55	9	5.03	0.83159
56	9	5.38	0.79966
57	9	6.28	0.71121
58	9	6.17	0.72310

Test No.	DOF	ChiSqr	P-Value
59	9	6.01	0.73881
60	9	13.36	0.14700
61	9	9.34	0.40632
62	9	9.96	0.35399
63	9	5.80	0.75956
64	9	14.57	0.10336
65	9	11.26	0.25861
66	9	8.02	0.53242
67	9	11.94	0.21645
68	9	3.20	0.95585
69	9	14.02	0.12176
70	9	13.91	0.12552
71	9	12.27	0.19863
72	9	5.49	0.78991
73	9	2.29	0.98594
74	9	9.42	0.39957
75	9	7.60	0.57478
76	9	16.38	0.05928
77	9	20.59	0.01460
78	9	8.60	0.47481
79	9	5.52	0.78727
80	9	17.39	0.04294
81	9	14.14	0.11733

Test No.	DOF	ChiSqr	P-Value
82	9	8.36	0.49812
83	9	14.62	0.10202
84	9	15.25	0.08439
85	9	10.81	0.28928
86	9	15.81	0.07101
87	9	8.78	0.45739
88	9	9.72	0.37364
89	9	11.15	0.26533
90	9	12.93	0.16579
91	9	7.48	0.58681
92	9	7.68	0.56661
93	9	6.09	0.73056
94	9	16.41	0.05887
95	9	3.68	0.93128
96	9	10.57	0.30662
97	9	9.70	0.37531
98	9	11.14	0.26640
99	9	11.74	0.22834
100	9	4.25	0.89411
Combined P-value for all tests (Using KS method)			0.25577

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	66.89	0.91459
2	84	77.00	0.69278
3	84	84.78	0.45572
4	84	83.13	0.50635
5	84	72.60	0.80810
6	84	90.06	0.30564
7	84	79.38	0.62221
8	84	83.46	0.49619
9	84	96.36	0.16815
10	84	82.34	0.53088
11	84	99.76	0.11546
12	84	111.56	0.02384
13	84	84.09	0.47673
14	84	69.07	0.88027

Test No.	DOF	ChiSqr	P-Value
15	84	58.28	0.98537
16	84	78.55	0.64750
17	84	105.12	0.05934
18	84	87.83	0.36610
19	84	70.70	0.84939
20	84	92.72	0.24139
21	84	113.32	0.01821
22	84	77.98	0.66422
23	84	76.82	0.69805
24	84	85.07	0.44690
25	84	111.80	0.02300
26	84	68.80	0.88481
27	84	93.39	0.22659
28	84	106.25	0.05099
29	84	72.14	0.81860
30	84	80.86	0.57688
31	84	89.70	0.31505
32	84	67.12	0.91132
33	84	80.84	0.57728
34	84	101.07	0.09895
35	84	71.76	0.82709
36	84	90.19	0.30228

Test No.	DOF	ChiSqr	P-Value
37	84	79.90	0.60632
38	84	65.50	0.93264
39	84	88.26	0.35400
40	84	83.86	0.48365
41	84	75.30	0.74008
42	84	82.65	0.52133
43	84	116.02	0.01186
44	84	119.59	0.00653
45	84	92.15	0.25442
46	84	86.52	0.40378
47	84	75.54	0.73376
48	84	63.01	0.95778
49	84	126.87	0.00176
50	84	86.92	0.39191
51	84	71.34	0.83612
52	84	76.63	0.70342
53	84	70.17	0.85991
54	84	76.50	0.70721
55	84	81.88	0.54518
56	84	74.46	0.76224
57	84	87.94	0.36292
58	84	55.33	0.99338
59	84	68.41	0.89136

Test No.	DOF	ChiSqr	P-Value
60	84	90.24	0.30107
61	84	84.99	0.44936
62	84	85.28	0.44065
63	84	98.49	0.13341
64	84	100.87	0.10130
65	84	75.81	0.72638
66	84	55.22	0.99359
67	84	57.52	0.98796
68	84	94.15	0.21051
69	84	78.14	0.65972
70	84	70.82	0.84688
71	84	86.72	0.39780
72	84	87.68	0.37029
73	84	100.67	0.10381
74	84	71.96	0.82261
75	84	99.84	0.11442
76	84	90.16	0.30313
77	84	74.02	0.77373
78	84	90.58	0.29238
79	84	77.39	0.68149
80	84	85.40	0.43692
81	84	91.44	0.27124
82	84	83.32	0.50058

Test No.	DOF	ChiSqr	P-Value
83	84	90.55	0.29322
84	84	88.82	0.33861
85	84	71.40	0.83472
86	84	112.04	0.02218
87	84	83.29	0.50142
88	84	78.08	0.66125
89	84	103.01	0.07789
90	84	72.06	0.82042
91	84	87.02	0.38909
92	84	113.02	0.01906
93	84	89.95	0.30871
94	84	79.18	0.62831
95	84	81.55	0.55551
96	84	87.59	0.37291
97	84	67.11	0.91155
98	84	79.07	0.63184
99	84	111.64	0.02355
100	84	96.68	0.16257
Combined P-value for all tests (Using KS method)			0.90256

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	24.77	0.25733
2	7	21	19.20	0.57250
3	7	21	26.13	0.20161
4	7	21	21.01	0.45845
5	7	21	21.90	0.40545
6	7	21	22.84	0.35262
7	7	21	18.29	0.63036
8	7	21	27.80	0.14585
9	7	21	19.46	0.55596
10	7	21	17.83	0.65984
11	7	21	19.23	0.57041
12	7	21	22.61	0.36516
13	7	21	23.55	0.31548
14	7	21	14.93	0.82638
15	7	21	32.74	0.04918
16	7	21	13.73	0.88102

Test No.	Positions	DOF	ChiSqr	P-Value
17	7	21	21.82	0.40995
18	7	21	41.42	0.00498
19	7	21	29.35	0.10574
20	7	21	19.78	0.53532
21	7	21	22.70	0.35998
22	7	21	14.55	0.84505
23	7	21	25.25	0.23637
24	7	21	18.52	0.61607
25	7	21	13.02	0.90792
26	7	21	19.14	0.57643
27	7	21	14.78	0.83366
28	7	21	12.50	0.92521
29	7	21	23.06	0.34081
30	7	21	15.24	0.81063
31	7	21	37.47	0.01486
32	7	21	36.80	0.01772
33	7	21	12.38	0.92871
34	7	21	13.14	0.90381
35	7	21	20.08	0.51589
36	7	21	19.51	0.55221
37	7	21	23.99	0.29373
38	7	21	23.97	0.29437

Test No.	Positions	DOF	ChiSqr	P-Value
39	7	21	17.91	0.65498
40	7	21	20.58	0.48500
41	7	21	28.37	0.13008
42	7	21	25.23	0.23750
43	7	21	16.42	0.74540
44	7	21	18.55	0.61401
45	7	21	26.50	0.18801
46	7	21	24.55	0.26720
47	7	21	11.47	0.95289
48	7	21	24.47	0.27083
49	7	21	17.11	0.70425
50	7	21	24.88	0.25232
51	7	21	19.87	0.52934
52	7	21	13.60	0.88617
53	7	21	12.15	0.93553
54	7	21	29.54	0.10168
55	7	21	18.52	0.61566
56	7	21	24.06	0.29033
57	7	21	22.43	0.37512
58	7	21	33.12	0.04485
59	7	21	19.35	0.56294
60	7	21	39.50	0.00855

Test No.	Positions	DOF	ChiSqr	P-Value
61	7	21	13.99	0.87002
62	7	21	27.86	0.14415
63	7	21	24.93	0.25006
64	7	21	27.29	0.16148
65	7	21	13.85	0.87576
66	7	21	10.64	0.96936
67	7	21	25.94	0.20861
68	7	21	14.32	0.85537
69	7	21	14.58	0.84359
70	7	21	12.25	0.93269
71	7	21	21.21	0.44591
72	7	21	24.88	0.25237
73	7	21	16.98	0.71205
74	7	21	18.57	0.61275
75	7	21	11.25	0.95766
76	7	21	11.74	0.94643
77	7	21	16.06	0.76644
78	7	21	14.38	0.85258
79	7	21	21.79	0.41181
80	7	21	22.34	0.38009
81	7	21	15.04	0.82069
82	7	21	41.42	0.00497

Test No.	Positions	DOF	ChiSqr	P-Value
83	7	21	19.10	0.57902
84	7	21	19.15	0.57564
85	7	21	13.55	0.88826
86	7	21	22.74	0.35781
87	7	21	35.80	0.02305
88	7	21	10.81	0.96632
89	7	21	10.84	0.96572
90	7	21	18.35	0.62666
91	7	21	24.44	0.27232
92	7	21	13.88	0.87477
93	7	21	22.53	0.36961
94	7	21	19.31	0.56523
95	7	21	14.10	0.86531
96	7	21	15.63	0.78984
97	7	21	19.45	0.55649
98	7	21	17.04	0.70896
99	7	21	18.81	0.59740
100	7	21	25.50	0.22617
Combined P-value for all tests (Using KS method)				0.51596

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	0.90256	1.00000
Suits Test	0.51596	1.00000
Hand Types Test	0.25577	0.76732
Combined P-Value using Holm's Method		0.76732

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.

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.

GLI has done limited sanity checks to verify the integrity of the game logs. GLI 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.

Please note, the results contained herein are based on game design documentation provided to GLI by the manufacturer. It is the responsibility of the manufacturer to ensure that the gaming software performs in the same way as the documentation.

Please visit Gaminglabs.com to view the applicable Terms and Conditions and GLI Product Certification Scheme.

Should you have any questions or need any additional information, please feel free to contact our office.

Sincerely,

GAMING LABORATORIES INTERNATIONAL, LLC



Christine M. Gallo

Senior Vice President, Quality and Technical Compliance

jc/rv