

APPENDIX 12: THEORETICAL VS. EMPIRICAL CHANCES OF MAJOR LEAGUE GAMES GOING X INNINGS

Here are the statistical probabilities that any given major league game will take 10 innings, 11 innings, etc. all the way up to 55 innings. It is assumed that each team will score 0.487 runs per half inning, and that the value of k, or the probability that both teams will score the same number of runs in any given inning, is 0.5559, or 55.59%.

INNINGS	EMPIRICAL PROBABILITY	THEORETICAL PROBABILITY
10	4.11696 %	4.574 %
11	2.31314	2.543
12	1.29204	1.414
13	0.71681	0.7857
14	0.42390	0.4368
15	0.21805	0.2428
16	0.13262	0.1350
17	0.07160	0.07502
18	0.03499	0.04170
19	0.02034	0.02318
20	0.01013	0.01289
21	0.00506	0.007163
22	0.00405	0.003982
23	0.00101	0.002214
24	0.00152	0.001230
25	0.00101	0.0006839
26	0.00051	0.0003802
27	0	0.0002114
28	0	0.0001175
29	0	0.00006531
30	0	0.00003631
31	0	0.00002018
32	0	0.00001122
33	0	0.000006236
34	0	0.000003466
35	0	0.000001927
36	0	0.000001071
37	0	0.0000005954
38	0	0.0000003309
39	0	0.0000001839
40	0	0.0000001023
41	0	0.00000005685
42	0	0.00000003160
43	0	0.00000001757
44	0	0.000000009765
45	0	0.000000005428
46	0	0.000000003018
47	0	0.000000001677
48	0	0.0000000009324
49	0	0.0000000005183
50	0	0.0000000002881