

Data set as histogram per \$2 initial bet.												
Number of times a possible result was actually obtained per row-sequence of million rounds												
Result: Y	-6	-4	-2	2	4	6	8	16	18		# Games	
	141401	317868	5926	77788	20	380140	5770	46794	24293		10^6	
	141369	317897	5958	78563	12	379532	5834	46253	24582		10^6	
	141427	317654	6009	78888	13	378858	5910	46560	24681		10^6	
	141512	317990	5926	78768	20	378975	5882	46248	24679		10^6	
	140840	317173	5924	78912	15	379892	5845	46707	24692		10^6	
	141958	316405	5949	78557	16	380274	5912	46307	24622		10^6	
	141520	317324	5829	78220	17	379877	5894	46667	24652		10^6	
	140995	317419	5851	78460	12	280579	5893	46305	24486		10^6	
	142133	317544	5867	78388	15	379433	5873	46086	24661		10^6	
	141936	317125	5990	78228	14	379512	5800	46542	24853		10^6	
Average:	141509	317440	5923	78477	15	369707	5861	46447	24620		1000000	
y	-6	-4	-2	2	4	6	8	16	18			
py(y)	0.14151	0.31744	0.00592	0.07848	0.00002	0.36971	0.00586	0.04645	0.02462		1.00000	
y * py(y)	-0.849054	-1.269759	-0.011845	0.156954	0.000061	2.218243	0.046890	0.743150	0.443161	(dot prod) =	1.4778	E(Y)
# of Paths												Average
total_win	463693	463926	463653	463623	464647	464741	463989	464931	463691	463540		464043
total_lose	465146	465169	465036	465373	463892	464255	464624	464209	465489	465003		464820
total_tie	71161	70905	71311	71004	71461	71004	71387	70860	70820	71457		71137
total_war	35	34	31	41	29	43	39	33	33	30		35
total_nowar	39	36	39	36	33	32	29	36	40	32		35
total_win2	24	12	13	20	15	16	17	12	15	10		15
total_lose2	10	19	15	19	12	25	20	20	15	16		17
total_tie2	1	3	3	2	2	2	2	1	3	4		2
myGrandBala	1536896	1531844	1536278	1529828	1550184	1540960	1543256	1541866	1526984	1539930		1537803
winPerGame	1.5369	1.5318	1.5363	1.5298	1.5502	1.5410	1.5433	1.5419	1.5270	1.5399	Actual	1.5378

NET WINNINGS:

Actual	Average Winnings per Game:	1.5378
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Let's suppose that the casino knows that the actual net earning per \$2 chip is \$1.54, which is in the player's favor in order to bring the advantage back to them, it is charged a \$8 fee so you can play with \$10-value chips.

$$Y = 5X - 8$$

$$E(Y) = E(5X - 8) = 5E(X) - 8 = 5 \cdot 1.47 - 8 = 7.7 - 8 = -0.65$$

$$\text{Var}(Y) = \text{Var}(5X - 8) = 25 \text{Var}(X), \text{ where } \text{Var}(X) = E(X^2) - E(X)^2$$

$$\text{sd}(Y) = \sqrt{\text{Var}(Y)}$$