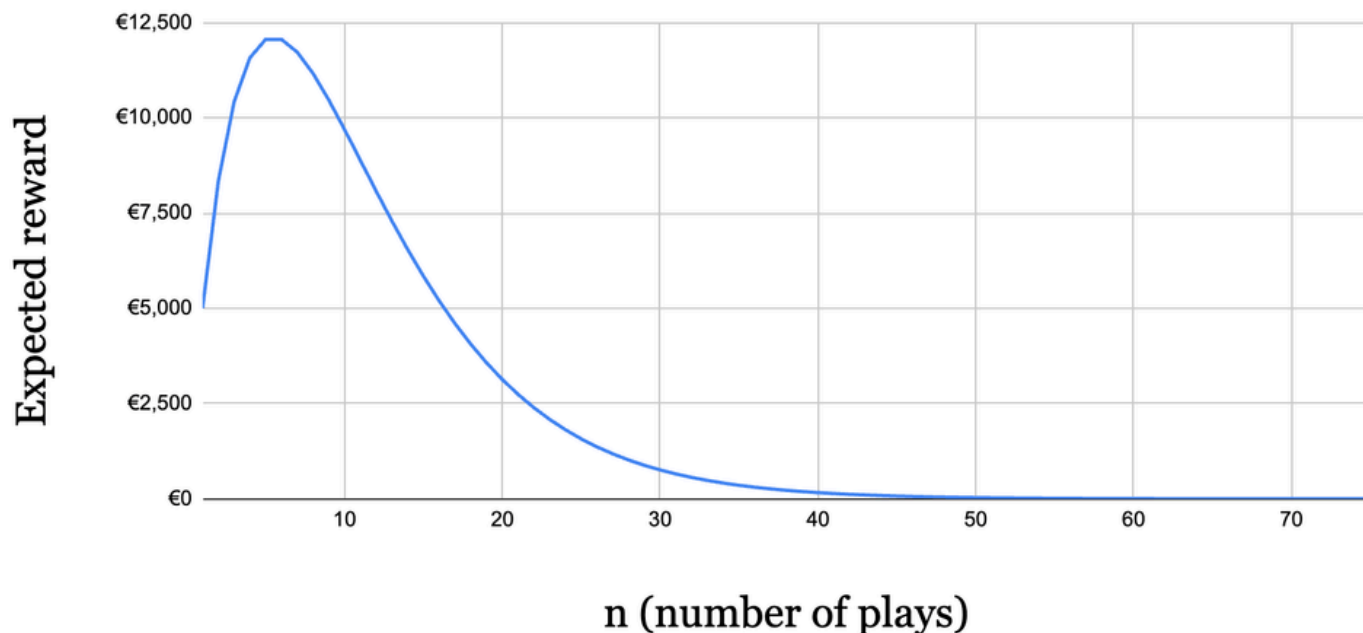
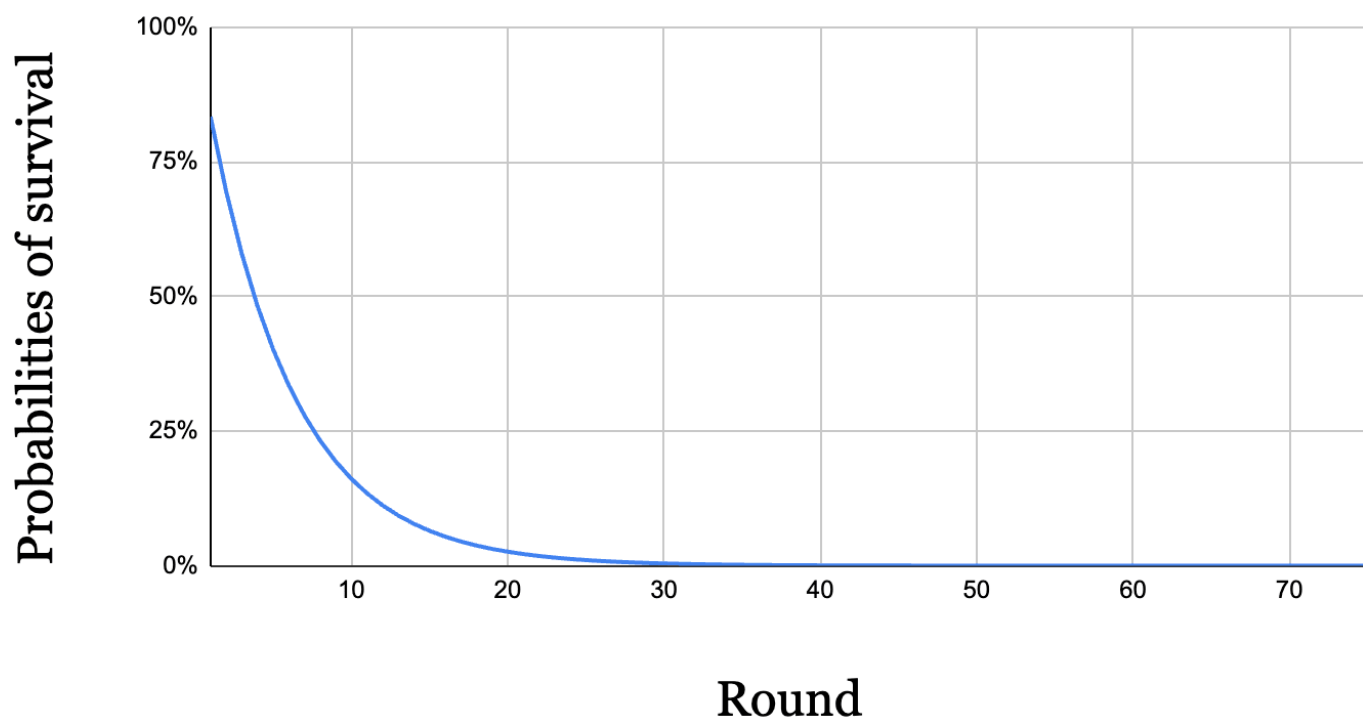


# Figures for Ergodicity

Russian Roulette expected returns after  $n$  plays with prize \$6000 per win



Probabilities of survival at round  $n$



Race #	Alice (20% win chance, 10% injury chance)				Bob (15% win chance, 1% injury chance)			
	Chances of participating	Chances of finishing it	Expected wins	Cumulative wins	Chances of participating	Chances of finishing it	Expected wins	Cumulative wins
1	100%	90%	0.18	0.18	100%	99%	0.15	0.15
2	90%	81%	0.16	0.34	99%	98%	0.15	0.30
3	81%	73%	0.15	0.49	98%	97%	0.15	0.44
4	73%	66%	0.13	0.62	97%	96%	0.14	0.59
5	66%	59%	0.12	0.74	96%	95%	0.14	0.73
6	59%	53%	0.11	0.84	95%	94%	0.14	0.87
7	53%	48%	0.10	0.94	94%	93%	0.14	1.01
8	48%	43%	0.09	1.03	93%	92%	0.14	1.15
9	43%	39%	0.08	1.10	92%	91%	0.14	1.28
10	39%	35%	0.07	1.17	91%	90%	0.14	1.42