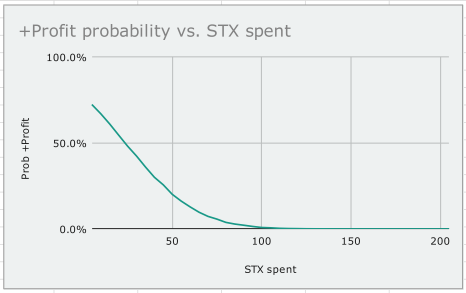
Commit	Blocks	% Chance	Prob +EV
5	1996	2.4%	72.3%
10	999	4.8%	66.9%
15	666	7.0%	61.0%
20	499	9.1%	54.5%
25	399	11.1%	48.1%
30	333	13.0%	42.4%
35	285	14.9%	36.0%
40	249	16.7%	30.0%
45	222	18.4%	25.6%
50	199	20.0%	20.1%
55	181	21.6%	16.2%
60	166	23.1%	12.8%
65	153	24.5%	9.7%
70	142	25.9%	7.3%
75	133	27.3%	5.7%
80	124	28.6%	3.8%
85	117	29.8%	2.8%
90	111	31.0%	2.1%
95	105	32.2%	1.4%
100	99	33.3%	0.8%
105	95	34.4%	0.6%
110	90	35.5%	0.3%
115	86	36.5%	0.2%
120	83	37.5%	0.1%
125	79	38.5%	0.1%
130	76	39.4%	0.0%
135	74	40.3%	0.0%
140	71	41.2%	0.0%
145	68	42.0%	0.0%
150	66	42.9%	0.0%
155	64	43.7%	0.0%
160	62	44.4%	0.0%
165	60	45.2%	0.0%
170	58	45.9%	0.0%
175	57	46.7%	0.0%
180	55	47.4%	0.0%
185	54	48.1%	0.0%
190	52	48.7%	0.0%
195	51	49.4%	0.0%
200	49	50.0%	0.0%
205	48	50.6%	0.0%

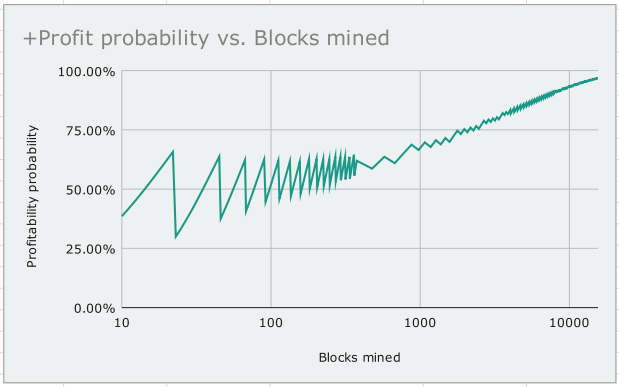


Feel free to change the yellow cells

Parameter		Description
Existing commit	200	How many STX are already committed to a block?
Blocks mined per b	150	
TX fee	1.5	TX fee (in STX) when for each `mine-many` tx
STX spend	10,000	How much STX do you want to spend in total on mining?
MIA price	0.0034	
STX Price	1.5	
MIA reward	100,000	
TX fee (per block)	0.01	
Min success	45	Number of winning blocks required to cover costs
Reward (STX)	226.6666667	Block reward value (in STX)
Discount	11.76%	Miner discount

Blocks mined	Cost	Minimum winning blocks	Likelyhood of profitability
10	100	1	39%
11	110	1	42%
12	120	1	44%
13	130	1	47%
14	140	1	49%
15	150	1	52%
16	160	1	54%
17	170	1	56%
18	180	1	58%
19	190	1	60%
20	200	1	62%
21	210	1	64%
22	220	1	66%
23	230	2	30%
24	240	2	32%
25	250	2	34%
26	260	2	35%
27	270	2	37%
28	280	2	39%
29	290	2	40%
30	300	2	42%
31	310	2	44%
32	320	2	45%
33	330	2	47%
34	340	2	49%
35	350	2	50%
36	360	2	52%
37	370	2	53%
38	380	2	55%
39	390	2	56%
40	400	2	57%
41	410	2	59%
42	420	2	60%
43	430	2	61%
44	440	2	63%
45	450	2	64%
46	460	3	38%
47	470	3	39%
48	480	3	40%
49	490	3	41%
50	500	3	43%
51	510	3	44%
52	520	3	45%
53	530	3	47%
54	540	3	48%
55	550	3	49%
56	560	3	50%
57	570	3	51%
58	580	3	53%
59	590	3	54%
60	600	3	55%
61	610	3	56%
62	620	3	57%
63	630	3	58%
64	640	3	59%
65	650	3	60%
66	660	3	61%
67	670	3	62%
68	680	4	41%
69	690	4	42%
70	700	4	43%
71	710	4	44%
72	720	4	45%
73	730	4	46%
74	740	4	47%
75	750	4	48%
76	760	4	49%
78	780	4	51%
80	800	4	53%
82	820	4	55%
84	840	4	57%
86	860	4	59%
88	880	4	61%
90	900	4	63%
92	920	5	45%
94	940	5	47%
96	960	5	48%
98	980	5	50%
100	1000	5	52%
102	1020	5	54%
104	1040	5	56%
106	1060	5	57%

Block reward (STX)	225	
Existing commit	200	
Commit size	10	How much STX to mine per block
% Chance	5%	
Discount	11.09%	



108	1080	5	59%								
110	1100	5	61%								
112	1120	5	62%								
114	1140	6	46%								
116	1160	6	48%								
118	1180	6	49%								
120	1200	6	51%								
122	1220	6	53%								
124	1240	6	54%								
126	1260	6	56%								
128	1280	6	57%								
130	1300	6	59%								
132	1320	6	60%								
134	1340	6	62%								
136	1360	7	47%								
138	1380	7	49%								
140	1400	7	50%								
142	1420	7	52%								
144	1440	7	53%								
146	1460	7	55%								
148	1480	7	56%								
150	1500	7	58%								
152	1520	7	59%								
154	1540	7	60%								
156	1560	7	62%								
158	1580	8	48%								
160	1600	8	49%								
162	1620	8	51%								
164	1640	8	52%								
166	1660	8	54%								
168	1680	8	55%								
170	1700	8	56%								
172	1720	8	58%								
174	1740	8	59%								
176	1760	8	60%								
178	1780	8	62%								
180	1800	8	63%								
182	1820	9	50%								
184	1840	9	52%								
186	1860	9	53%								
188	1880	9	54%								
190	1900	9	55%								
192	1920	9	57%								
194	1940	9	58%								
196	1960	9	59%								
198	1980	9	60%								
200	2000	9	62%								
202	2020	9	63%								
204	2040	10	51%								
206	2060	10	52%								
208	2080	10	53%								
210	2100	10	55%								
212	2120	10	56%								
214	2140	10	57%								
216	2160	10	58%								
218	2180	10	59%								
220	2200	10	60%								
222	2220	10	62%								
224	2240	10	63%								
226	2260	11	51%								
228	2280	11	53%								
230	2300	11	54%								
232	2320	11	55%								
234	2340	11	56%								
236	2360	11	57%								
238	2380	11	58%								
240	2400	11	59%								
242	2420	11	61%								
244	2440	11	62%								
246	2460	11	63%								
248	2480	12	52%								
250	2500	12	53%								
252	2520	12	54%								
254	2540	12	55%								
256	2560	12	56%								
258	2580	12	57%								
260	2600	12	58%								
262	2620	12	60%								
264	2640	12	61%								
266	2660	12	62%								
268	2680	12	63%								
270	2700	12	64%								
272	2720	13	53%								
274	2740	13	54%								

276	2760	13	56%								
278	2780	13	57%								
280	2800	13	58%								
282	2820	13	59%								
284	2840	13	60%								
286	2860	13	61%								
288	2880	13	62%								
290	2900	13	63%								
292	2920	13	64%								
294	2940	14	54%								
296	2960	14	55%								
298	2980	14	56%								
300	3000	14	57%								
302	3020	14	58%								
304	3040	14	59%								
306	3060	14	60%								
308	3080	14	61%								
310	3100	14	62%								
312	3120	14	63%								
314	3140	14	64%								
316	3160	15	54%								
318	3180	15	55%								
320	3200	15	56%								
322	3220	15	57%								
324	3240	15	58%								
326	3260	15	59%								
328	3280	15	60%								
330	3300	15	61%								
332	3320	15	62%								
334	3340	15	63%								
336	3360	15	64%								
338	3380	16	55%								
340	3400	16	55%								
342	3420	16	56%								
344	3440	16	57%								
346	3460	16	58%								
348	3480	16	59%								
350	3500	16	60%								
352	3520	16	61%								
354	3540	16	62%								
356	3560	16	63%								
358	3580	16	64%								
360	3600	16	65%								
362	3620	17	56%								
364	3640	17	57%								
366	3660	17	58%								
368	3680	17	59%								
370	3700	17	59%								
372	3720	17	60%								
374	3740	17	61%								
376	3760	17	62%								
476	4760	22	59%								
576	5760	26	64%								
676	6760	31	61%								
776	7760	35	65%								
876	8760	39	69%								
976	9760	44	67%								
1076	10760	48	70%								
1176	11760	53	68%								
1276	12760	57	71%								
1376	13760	62	69%								
1476	14760	66	72%								
1576	15760	71	70%								
1676	16760	75	73%								
1776	17760	79	75%								
1876	18760	84	73%								
1976	19760	88	75%								
2076	20760	93	74%								
2176	21760	97	76%								
2276	22760	102	75%								
2376	23760	106	77%								
2476	24760	111	76%								
2576	25760	115	77%								
2676	26760	119	79%								
2776	27760	124	78%								
2876	28760	128	79%								
2976	29760	133	78%								
3076	30760	137	80%								
3176	31760	142	79%								
3276	32760	146	80%								
3376	33760	151	80%								
3476	34760	155	81%								
3576	35760	159	82%								
3676	36760	164	81%								

3776	37760	168	83%								
3876	38760	173	82%								
3976	39760	177	83%								
4001	40010	178	83%								
4026	40260	179	84%								
4051	40510	181	82%								
4076	40760	182	82%								
4101	41010	183	83%								
4126	41260	184	83%								
4151	41510	185	83%								
4176	41760	186	83%								
4201	42010	187	84%								
4226	42260	188	84%								
4251	42510	189	84%								
4276	42760	191	83%								
4301	43010	192	83%								
4326	43260	193	83%								
4351	43510	194	84%								
4376	43760	195	84%								
4401	44010	196	84%								
4426	44260	197	84%								
4451	44510	198	85%								
4476	44760	199	85%								
4501	45010	201	83%								
4526	45260	202	84%								
4551	45510	203	84%								
4576	45760	204	84%								
4601	46010	205	84%								
4626	46260	206	85%								
4651	46510	207	85%								
4676	46760	208	85%								
4701	47010	209	85%								
4726	47260	211	84%								
4751	47510	212	84%								
4776	47760	213	84%								
4801	48010	214	85%								
4826	48260	215	85%								
4851	48510	216	85%								
4876	48760	217	85%								
4901	49010	218	86%								
4926	49260	219	86%								
4951	49510	221	85%								
4976	49760	222	85%								
5001	50010	223	85%								
5026	50260	224	85%								
5051	50510	225	86%								
5076	50760	226	86%								
5101	51010	227	86%								
5126	51260	228	86%								
5151	51510	229	86%								
5176	51760	231	85%								
5201	52010	232	85%								
5226	52260	233	86%								
5251	52510	234	86%								
5276	52760	235	86%								
5301	53010	236	86%								
5326	53260	237	87%								
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5376	53760	239	87%								
5401	54010	241	86%								
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5451	54510	243	86%								
5476	54760	244	86%								
5501	55010	245	87%								
5526	55260	246	87%								
5551	55510	247	87%								
5576	55760	248	87%								
5601	56010	249	87%								
5626	56260	251	86%								
5651	56510	252	86%								
5676	56760	253	87%								
5701	57010	254	87%								
5726	57260	255	87%								
5751	57510	256	87%								
5776	57760	257	87%								
5801	58010	258	88%								
5826	58260	259	88%								
5851	58510	261	87%								
5876	58760	262	87%								
5901	59010	263	87%								
5926	59260	264	87%								
5951	59510	265	88%								
5976	59760	266	88%								
6001	60010	267	88%								

6026	60260	268	88%								
6051	60510	269	88%								
6076	60760	271	87%								
6101	61010	272	87%								
6126	61260	273	88%								
6151	61510	274	88%								
6176	61760	275	88%								
6201	62010	276	88%								
6226	62260	277	88%								
6251	62510	278	89%								
6276	62760	279	89%								
6301	63010	281	88%								
6326	63260	282	88%								
6351	63510	283	88%								
6376	63760	284	88%								
6401	64010	285	88%								
6426	64260	286	89%								
6451	64510	287	89%								
6476	64760	288	89%								
6501	65010	289	89%								
6526	65260	291	88%								
6551	65510	292	88%								
6576	65760	293	88%								
6601	66010	294	89%								
6626	66260	295	89%								
6651	66510	296	89%								
6676	66760	297	89%								
6701	67010	298	89%								
6726	67260	299	89%								
6751	67510	301	89%								
6776	67760	302	89%								
6801	68010	303	89%								
6826	68260	304	89%								
6851	68510	305	89%								
6876	68760	306	89%								
6901	69010	307	90%								
6926	69260	308	90%								
6951	69510	309	90%								
6976	69760	311	89%								
7001	70010	312	89%								
7026	70260	313	89%								
7051	70510	314	89%								
7076	70760	315	90%								
7101	71010	316	90%								
7126	71260	317	90%								
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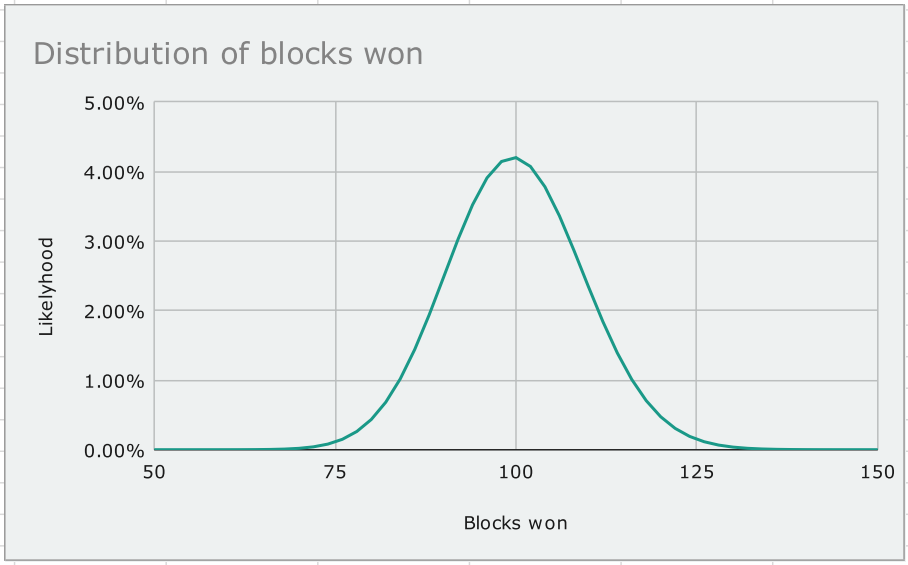
7176	71760	319	90%								
7201	72010	321	89%								
7226	72260	322	89%								
7251	72510	323	90%								
7276	72760	324	90%								
7301	73010	325	90%								
7326	73260	326	90%								
7351	73510	327	90%								
7376	73760	328	90%								
7401	74010	329	91%								
7426	74260	331	90%								
7451	74510	332	90%								
7476	74760	333	90%								
7501	75010	334	90%								
7526	75260	335	90%								
7551	75510	336	90%								
7576	75760	337	91%								
7601	76010	338	91%								
7626	76260	339	91%								
7651	76510	341	90%								
7676	76760	342	90%								
7701	77010	343	90%								
7726	77260	344	90%								
7751	77510	345	91%								
7776	77760	346	91%								
7801	78010	347	91%								
7826	78260	348	91%								
7851	78510	349	91%								
7876	78760	351	90%								
7976	79760	355	91%								
8076	80760	359	91%								
8176	81760	364	91%								
8276	82760	368	92%								
8376	83760	373	91%								
8476	84760	377	92%								
8576	85760	382	91%								
8676	86760	386	92%								
8776	87760	391	92%								

8876	88760	395	92%								
8976	89760	399	93%								
9076	90760	404	92%								
9176	91760	408	93%								
9276	92760	413	92%								
9376	93760	417	93%								
9476	94760	422	93%								
9576	95760	426	93%								
9676	96760	431	93%								
9776	97760	435	93%								
9876	98760	439	93%								
9976	99760	444	93%								
10076	100760	448	94%								
10176	101760	453	93%								
10276	102760	457	94%								
10376	103760	462	93%								
10476	104760	466	94%								
10576	105760	471	94%								
10676	106760	475	94%								
10776	107760	479	94%								
10876	108760	484	94%								
10976	109760	488	94%								
11076	110760	493	94%								
11176	111760	497	94%								
11276	112760	502	94%								
11376	113760	506	95%								
11476	114760	511	94%								
11576	115760	515	95%								
11676	116760	519	95%								
11776	117760	524	95%								
11876	118760	528	95%								
11976	119760	533	95%								
12076	120760	537	95%								
12176	121760	542	95%								
12276	122760	546	95%								
12376	123760	551	95%								
12476	124760	555	95%								
12576	125760	559	96%								
12676	126760	564	95%								
12776	127760	568	96%								
12876	128760	573	95%								
12976	129760	577	96%								
13076	130760	582	96%								
13176	131760	586	96%								
13276	132760	591	96%								
13376	133760	595	96%								
13476	134760	599	96%								
13576	135760	604	96%								
13676	136760	608	96%								
13776	137760	613	96%								
13876	138760	617	96%								
13976	139760	622	96%								
14076	140760	626	96%								
14176	141760	631	96%								
14276	142760	635	96%								
14376	143760	639	97%								
14476	144760	644	96%								
14576	145760	648	97%								
14676	146760	653	96%								
14776	147760	657	97%								
14876	148760	662	97%								
14976	149760	666	97%								
15076	150760	671	97%								
15176	151760	675	97%								
15276	152760	679	97%								
15376	153760	684	97%								
15476	154760	688	97%								
15576	155760	693	97%								

Existing commi	Discount	% Chance	EV	Prob +EV (legacy)
800	60%	1.23%	146.91%	94.63%
850	58%	1.16%	132.56%	93.03%
900	55%	1.10%	119.78%	91.25%
950	53%	1.04%	108.33%	89.31%
1000	50%	0.99%	98.02%	87.24%
1050	48%	0.94%	88.68%	85.07%
1100	45%	0.90%	80.18%	82.82%
1150	43%	0.86%	72.41%	80.52%
1200	40%	0.83%	65.29%	78.18%
1250	38%	0.79%	58.73%	75.84%
1300	35%	0.76%	52.67%	73.49%
1350	33%	0.74%	47.06%	71.16%
1400	30%	0.71%	41.84%	68.86%
1450	28%	0.68%	36.99%	66.59%
1500	25%	0.66%	32.45%	64.37%
1550	23%	0.64%	28.21%	62.20%
1600	20%	0.62%	24.22%	60.08%
1650	18%	0.60%	20.48%	58.02%
1700	15%	0.58%	16.96%	56.02%
1750	13%	0.57%	13.64%	54.08%
1800	10%	0.55%	10.50%	52.21%
1850	8%	0.54%	7.53%	50.39%
1900	5%	0.52%	4.71%	48.64%
1950	3%	0.51%	2.04%	46.96%
2000	0%	0.50%	-0.50%	45.33%
2050	-2%	0.49%	-2.91%	43.76%
2100	-5%	0.47%	-5.21%	42.26%
2150	-8%	0.46%	-7.41%	40.81%
2200	-10%	0.45%	-9.50%	39.41%
2250	-13%	0.44%	-11.50%	38.07%

Block reward (STX)	2000	
Commit size	10	How much STX to mine per block
Spend	5000	Total STX spend on mining
Blocks mined	500	
Min successes	2.5	Number of winning blocks to cover costs

Blocks won	Likelyhood
50	0.00%
52	0.00%
54	0.00%
56	0.00%
58	0.00%
60	0.00%
62	0.00%
64	0.00%
66	0.00%
68	0.01%
70	0.02%
72	0.04%
74	0.08%
76	0.15%
78	0.26%
80	0.43%
82	0.68%
84	1.02%
86	1.44%
88	1.94%
90	2.48%
92	3.03%
94	3.52%
96	3.91%
98	4.15%
100	4.20%
102	4.07%
104	3.78%
106	3.36%
108	2.87%
110	2.35%
112	1.84%
114	1.39%
116	1.01%
118	0.71%
120	0.47%
122	0.31%
124	0.19%
126	0.11%
128	0.07%
130	0.04%
132	0.02%
134	0.01%
136	0.01%
138	0.00%
140	0.00%
142	0.00%
144	0.00%
146	0.00%
148	0.00%
150	0.00%

Blocks mined	1000	Number of blocks mined
% Chance	10%	Percentage chance of winning each block