

Table 40

PTOP: Distribution and NPS of the PPset Trails												
Line #	EVEN # START, E <sub>s</sub>	EVEN # END, E <sub>e</sub>	Starting "3"	P <sub>2</sub> =PRIME	EC=# of EVENS covered	Δ= EVEN Start-End	Δ=2EC-2	Δ=P <sub>2</sub> -3	P <sub>2</sub> =Δ+3	EC=(Δ/2)+1	EC=(EVEN/2)-2	
1	6	6	3+3	3	1	0	0	0	3	1	1	
2	8	10	3+5	5	2	2	2	2	5	2	2	
3	10	14	3+7	7	3	4	4	4	7	3	3	
4	14	22	3+11	11	5	8	8	8	11	5	5	
5	16	26	3+13	13	6	10	10	10	13	6	6	
6	20	34	3+17	17	8	14	14	14	17	8	8	
7	22	38	3+19	19	9	16	16	16	19	9	9	
8	26	46	3+23	23	11	20	20	20	23	11	11	
9	32	58	3+29	29	14	26	26	26	29	14	14	
10	34	62	3+31	31	15	28	28	28	31	15	15	
11	40	74	3+37	37	18	34	34	34	37	18	18	
12	44	82	3+41	41	20	38	38	38	41	20	20	
13	46	86	3+43	43	21	40	40	40	43	21	21	
14	50	94	3+47	47	23	44	44	44	47	23	23	
15	56	106	3+53	53	26	50	50	50	53	26	26	
16	62	118	3+59	59	29	56	56	56	59	29	29	
17	64	122	3+61	61	30	58	58	58	61	30	30	
18	70	134	3+67	67	33	64	64	64	67	33	33	
19	74	142	3+71	71	35	68	68	68	71	35	35	
20	76	146	3+73	73	36	70	70	70	73	36	36	
21	82	158	3+79	79	39	76	76	76	79	39	39	
22	86	166	3+83	83	41	80	80	80	83	41	41	
23	92	178	3+89	89	44	86	86	86	89	44	44	
24	100	194	3+97	97	48	94	94	94	97	48	48	
25	104	202	3+101	101	50	98	98	98	101	50	50	
26	106	206	3+103	103	51	100	100	100	103	51	51	
27	110	214	3+107	107	53	104	104	104	107	53	53	
28	112	218	3+109	109	54	106	106	106	109	54	54	
29	116	226	3+113	113	56	110	110	110	113	56	56	
30	130	254	3+127	127	63	124	124	124	127	63	63	
31	134	262	3+131	131	65	128	128	128	131	65	65	
32	140	274	3+137	137	68	134	134	134	137	68	68	
33	142	278	3+139	139	69	136	136	136	139	69	69	
34	152	298	3+149	149	74	146	146	146	149	74	74	
35	154	302	3+151	151	75	148	148	148	151	75	75	
36	160	314	3+157	157	78	154	154	154	157	78	78	
37	166	326	3+163	163	81	160	160	160	163	81	81	
38	170	334	3+167	167	83	164	164	164	167	83	83	
39	176	346	3+173	173	86	170	170	170	173	86	86	
40	182	358	3+179	179	89	176	176	176	179	89	89	
41	184	362	3+181	181	90	178	178	178	181	90	90	
42	194	382	3+191	191	95	188	188	188	191	95	95	
43	196	386	3+193	193	96	190	190	190	193	96	96	
44	200	394	3+197	197	98	194	194	194	197	98	98	
45	202	398	3+199	199	99	196	196	196	199	99	99	
46	214	422	3+211	211	105	208	208	208	211	105	105	
47	226	446	3+223	223	111	220	220	220	223	111	111	
48	230	454	3+227	227	113	224	224	224	227	113	113	
49	232	458	3+229	229	114	226	226	226	229	114	114	
50	236	466	3+233	233	116	230	230	230	233	116	116	
51	242	478	3+239	239	119	236	236	236	239	119	119	
52	244	482	3+241	241	120	238	238	238	241	120	120	
53	254	502	3+251	251	125	248	248	248	251	125	125	
54	260	514	3+257	257	128	254	254	254	257	128	128	
55	266	526	3+263	263	131	260	260	260	263	131	131	
56	272	538	3+269	269	134	266	266	266	269	134	134	
57	274	542	3+271	271	135	268	268	268	271	135	135	
58	280	554	3+277	277	138	274	274	274	277	138	138	
59	284	562	3+281	281	140	278	278	278	281	140	140	
60	286	566	3+283	283	141	280	280	280	283	141	141	
61	296	586	3+293	293	146	290	290	290	293	146	146	
62	310	614	3+307	307	153	304	304	304	307	153	153	
63	314	622	3+311	311	155	308	308	308	311	155	155	
64	316	626	3+313	313	156	310	310	310	313	156	156	
65	320	634	3+317	317	158	314	314	314	317	158	158	
66	334	662	3+331	331	165	328	328	328	331	165	165	
67	340	674	3+337	337	168	334	334	334	337	168	168	
68	350	694	3+347	347	173	344	344	344	347	173	173	
69	352	698	3+349	349	174	346	346	346	349	174	174	
70	356	706	3+353	353	176	350	350	350	353	176	176	
71	362	718	3+359	359	179	356	356	356	359	179	179	
72	370	734	3+367	367	183	364	364	364	367	183	183	
73	376	746	3+373	373	186	370	370	370	373	186	186	
74	382	758	3+379	379	189	376	376	376	379	189	189	
75	386	766	3+383	383	191	380	380	380	383	191	191	
76	392	778	3+389	389	194	386	386	386	389	194	194	
77	400	794	3+397	397	198	394	394	394	397	198	198	
78	404	802	3+401	401	200	398	398	398	401	200	200	

**Tables 38-40: PTOP: Distribution and NPS of the PPset Trails.** EVEN #s START and END are those EVENS starting with a "3" + Prime (P). The **Number Pattern Sequence (NPS)** that follows demonstrates that as one progresses sequentially out the sequence of EVENS, the "Trail" of PRIME PAIR sets (PPset) increases at a predictable rate. The overlap of sequential PPset Trails ensures that ALL EVENS are composed of one or more PPsets, proving Euler's Strong version of the Goldbach Conjecture:

all positive even integers  $\geq 4$  can be expressed as the sum of two primes.  
 Note that the EVENS covered by the PPset Trails run very nearly 1/2 of the PRIME value throughout.  
 Explicitly: let  $P_1$  &  $P_2 =$  PPset and  $E_s =$  EVEN # START,  $E_e =$  EVEN # END within that PPset, then:

$$2P_2 = P_2 + P_2 = E_e = (P_2 - P_1) + (P_1 + P_2) = (P_2 - P_1) + E_s$$

$$P_2 - P_1 = E_e - E_s$$

If  $P_1 = P_2$ , then  $2P_1 = 2P_2 = E_e$ , the END of the PPset Trail on that EVEN #.

Table 40: PTOP NPS

**NPS:** The NEXT PPset Trail beginning with "3+P<sub>2</sub>" ALWAYS begins, at the EVEN #, with the NEXT P<sub>2</sub> in the prime sequence.

**\*The NPS ONLY WORKS WITH THE EVENS THAT START WITH A "3 + P<sub>2</sub>" PPset.**

For EVENS with PPsets  $P_1 > 3$ , and  $P_2 \neq$  PRIME, drop to previous  $P_2 =$  PRIME. P<sub>1</sub> increases to equal the EVEN.

EX: EVEN = 92 starts with 3+89 as  $P_1 = 3$ ,  $P_2 = 89$ .

EVEN = 94 starts with 5+89 as  $P_1 = 5$ ,  $P_2 = 89$ . P<sub>2</sub> dropped 1 PRIME steps from 91≠PRIME, P<sub>1</sub> increases 1 PRIME steps.

EVEN = 96 starts with 7+89 as  $P_1 = 7$ ,  $P_2 = 89$ . P<sub>2</sub> dropped 2 PRIME steps from 93≠PRIME, P<sub>1</sub> increases 2 PRIME steps.

EVEN = 98 starts with 19+79 as  $P_1 = 19$ ,  $P_2 = 79$ . P<sub>2</sub> dropped 5 PRIME steps from 95≠PRIME, P<sub>1</sub> increases 5 PRIME steps.

EVEN = 100 starts with 3+97 as  $P_1 = 3$ ,  $P_2 = 97$ .

\*See **Table 45: Equations for the Specific** (above) and **Universal** Equations.

The first instance of the Maximal PRIME Gap (Prime gap - Wikipedia) is designated with a gradient fill.

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