Table 35: Periodic Table Of Primes (PTOP) to 200+

The Periodic Table of Primes
A Solution to Euler's "strong" form of the Goldbach Conjecture
"that every even positive integer greater than or equal to 4 can be written as a sum of two primes"

Prime Pair Sets
(2+2=4 the first set is not included)

Σ# of 3,5 PP sets	3	5	7	11	13	17	19	23	29	31	37	41	43	47	53	59	61	67	71	73	79	83	89	97	101	103	107	109	113	127	131	137	139	149	151	157	163	167	173	179	181	191	193	197	199	211	EVEN #s	Σ PP #s
1	3+3																																														6	1
2	3+5																																														8	1
3	3+7	5+5																																													10	2
		5+7																																													12	1
4	3+11		7+7																																												14	2
5	3+13	5+11																																													16	2
		5+13	7+11																																												18	2
6	3+17		7+13																																												20	2
7	3+19	5+17		11+11																																											22	3
		5+19	7+17	11+13																																											24	3
8	3+23		7+19		13+13																																										26	3
		5+23		11+17																																											28	2
			7+23	11+19	13+17																																										30	3
9	3+29				13+19																																										32	2
10	3+31	5+29		11+23		17+17																																									34	4
		5+31	7+29		13+23	17+19																																									36	4
			7+31				19+19																																								38	2
11	3+37			11+29		17+23																																									40	3
		5+37		11+31	13+29		19+23																																								42	4
12	3+41		7+37		13+31																																										44	3
13	3+43	5+41				17+29		23+23																																							46	4
		5+43	7+41	11+37		17+31	19+29																																								48	5
14	3+47		7+43		13+37		19+31																																								50	4
		5+47		11+41				23+29																																							52	3
			7+47	11+43	13+41	17+37		23+31																																							54	5
15	3+53				13+43		19+37																																								56	3
		5+53		11+47		17+41			29+29																																						58	4
			7+53		13+47	17+43	19+41	23+37	29+31																																						60	6
16	3+59						19+43			31+31																																					62	3
17	3+61	5+59		11+53		17+47		23+41																																							64	5
		5+61	7+59		13+53		19+47	23+43	29+37																																						66	6
			7+61							31+37																																					68	2
18	3+67			11+59		17+53		23+47	29+41																																						70	5
		5+67		11+61	13+59		19+53		29+43	31+41																																					72	6
19	3+71		7+67		13+61					31+43	37+37																																				74	5
20	3+73	5+71				17+59		23+53	29+47																																						76	5
		5+73	7+71	11+67		17+61	19+59			31+47	37+41																																				78	7
			7+73		13+67		19+61				37+43																																				80	4
21	3+79			11+71				23+59	29+53			41+41																																			82	5
		5+79		11+73	13+71	17+67		23+61		31+53	37+47	41+43																																			84	8
22	3+83		7+79		13+73		19+67						43+43																																		86	5
		5+83				17+71			29+59			41+47																																			88	4
			7+83	11+79		17+73	19+71	23+67	29+61	31+59	37+53		43+47																																		90	9
23	3+89				13+79		19+73			31+61																																					92	4
		5+89		11+83				23+71				41+53		47+47																																	94	5
			7+89		13+83	17+79		23+73	29+67		37+59		43+53																																		96	7
							19+79			31+67	37+61																																				98	3
24	3+97			11+89		17+83			29+71			41+59		47+53																																	100	6
		5+97			13+89		19+83	23+79	29+73	31+71		41+61	43+59																																		102	8
25	3+101		7+97							31+73	37+67		43+61																																		104	5
26	3+103	5+101				17+89		23+83						47+59	53+53																																106	6
		5+103	7+101	11+97			19+89		29+79		37+71	41+67		47+61																																	108	8
27	3+107		7+103		13+97					31+79	37+73		43+67																																		110	6
28	3+109	5+107		11+101				23+89	29+83			41+71			53+59																																112	7
		5+109	7+107	11+103	13+101	17+97				31+83		41+73	43+71	47+67	53+61																																114	10
29	3+113		7+109		13+103		19+97				37+79		43+73																																		116	6
		5+113		11+107		17+101			29+89					47+71		59+59																															118	6
			7+113	11+109	13+107	17+103	19+101	23+97		31+89	37+83	41+79		47+73	53+67	59+61																															120	12
					13+109		19+103						43+79				61+61																														122	4
				11+113		17+107		23+101				41+83			53+71																																124	5
					13+113	17+109	19+107	23+103	29+97		37+89		43+83	47+79	53+73	59+67																															126	10
							19+109			31+97							61+67																														128	3
30	3+127					17+113		23+107	29+101			41+89		47+83		59+71																															130	7
		5+127					19+113	23+109	29+103	31+101			43+89		53+79	59+73	61+71																														132	9
31	3+131		7+127							31+103	37+97						61+73	67+67																													134	6
		5+131						23+113	29+107					47+89	53+83																																136	5
			7+131	11+127					29+109	31+107	37+101	41+97				59+79		67+71																													138	8
32	3+137				13+127					31+109	37+103		43+97				61+79	67+73																													140	7
33	3+139	5+137		11+131					29+110			41+101			53+89	59+83			71+71																												142	8
		5+139	7+137		13+131	17+127				31+113	37+107	41+103	43+101	47+97			61+83		71+73																												144	11
			7+139				19+127				37+109		43+103					67+79		73+73																											146	6
				11+137		17+131						41+107		47+101		59+89																															148	5
				11+139	13+137		19+131	23+127			37+113	41+109	43+107	47+103	53+97		61+89	67+83	71+79																												150	12
34	3+149				13+139								43+109							73+79																											152	4
35	3+151	5+149				17+137		23+131				41+113		47+107	53+101				71+83																												154	8
		5+151	7+149			17+139	19+137		29+127				43+113	47+109	53+103	59+97		67+89		73+83																											156	11
			7+151				19+139			31+127							61+97				79+79																										158	5
36	3+157			11+149				23+137	29+131					47+113	53+107	59+101			71+89																												160	8
		5+157		11+151	13+149			23+139		31+131					53+109	59+103	61+101			73+89	79+83																										162	10
			7+157		13+151						37+127						61+103	67+97																													164	5
37	3+163					17+149			29+137						53+113	59+107						83+83																									166	6
		5+163		11+157		17+151	19+149		29+139	31+137	37+131	41+127				59+109	61+107	67+101	71+97		79+89																										168	13
38	3+167		7+163		13+157		19+151			31+139			43+127				61+109	67+103		73+97																											170	9
		5+167						23+149				41+131				59+113			71+101			83+89																									172	6
			7+167	11+163		17+157		23+151			37+137		43+131	47+127			61+113	67+107	71+103	73+101																											174	11
39	3+173				13+163		19+157				37+139							67+109		73+103	79+97																										176	7
		5+173		11+167					29+149			41+137		47+131					71+107				89+89																								178	7
			7+173		13+167	17+163		23+157	29+151	31+149		41+139	43+137		53+127			67+113	71+109	73+107	79+101	83+97																									180	14
40	3+179						19+163			31+151			43+139								79+103																										182	5
41	3+181	5+179		11+173		17+167								47+137	53+131				71+113			83+101																									184	8
		5+181	7+179		13+173		19+167	23+163	29+157		37+149			47+139		59+127				73+113	79+107	83+103	89+97																								186	13
			7+181								37+151						61+127				79+109																										188	4
				11+179		17+173		23+167				41+149			53+137	59+131							89+101																								190	7
				11+181	13+179		19+173		29+163			41+151			53+139		61+131				79+113	83+109	89+103																								192	10
42	3+191				13+181					31+163	37+157		43+151					67+127						97+97																							194	7
43	3+193	5+191				17+179		23+173	29+167					47+149		59+137						83+113	89+107																								196	9
		5+193	7+191			17+181	19+179			31+167		41+157		47+151		59+139	61+137	67+131	71+127				89+109	97+101																							198	13
44	3+197		7+193				19+181				37+163		43+157				61+139			73+127				97+103																							200	8
45	3+199	5+197		11+191				23+179	29+173						53+149				71+131				89+113		101+101																						202	9
		5+199	7+197	11+193	13+191			23+181		31+173	37+167	41+163		47+157	53+151			67+137		73+131				97+107	101+103																						204	
			7+199		13+193								43+163					67+139			79+127			97+109		103+103																					206	
				11+197		17+191			29+179			41+167				59+149			71+137						101+107																						208	
				11+199	13+197	17+193	19+191		29+181	31+179	37+173		43+167	47+163	53+157	59+151	61+149		71+139	73+137	79+131	83+127		97+113	101+109	103+107																					210	
					13+199		19+193			31+181							61+151			73+139						103+109																					212	
						17+197		23+191				41+173		47+167								83+131			101+113		107+107																				214	
						17+199	19+197	23+193			37+179		43+173		53+163	59+157		67+149			79+137		89+127			103+113	107+109																				216	
							19+199				37+181						61+157	67+151			79+139							109+109																			218	
								23+197	29+191			41+179		47+173	53+167				71+149			83+137	89+131				107+113																				220	
								23+199	29+193	31+191		41+181	43+179			59+163			71+151	73+149		83+139						109+113																			222	
										31+193			43+181				61+163	67+157		73+151				97+127																							224	
									29+197					47+179	53+173	59+167							89+137						113+113																		226	
									29+199	31+197	37+191			47+181			61+167		71+157		79+149		89+139	97+131	101+127																						228	
										31+199	37+193							67+163		73+157	79+151					103+127																					230	
												41+191			53+179	59+173						83+149			101+131																						232	
											37+197	41+193	43+191		53+181		61+173	67+167	71+163			83+151		97+137		103+131	107+127																				234	
											37+199		43+193							73+163	79+157			97+139				109+127																			236	
												41+197		47+191		59+179			71+167				89+149		101+137		107+131																				238	
												41+199	43+197	47+193		59+181	61+179	67+173		73+167		83+157	89+151		101+139	103+137		109+131	113+127																		240	
													43+199				61+181				79+163					103+139																					242	
														47+197	53+191				71+173								107+137		113+131																		244	
														47+199	53+193			67+179		73+173	79+167	83+163	89+157	97+149			107+139	109+137																			246	
																		67+181						97+151				109+139																			248	
															53+197	59+191			71+179			83+167			101+149				113+137																		250	
															53+199	59+193	61+191		71+181	73+179	79+173		89+163		101+151	103+149			113+139																		252	
																	61+193			73+181				97+157		103+151				127+127																	254	
																59+197						83+173	89+167				107+149																				256	
																59+199	61+197	67+191			79+179				101+157		107+151	109+149		127+131																	258	
																	61+199	67+193			79+181			97+163		103+157		109+151																			260	
																			71+191			83+179	89+173						113+149		131+131																262	
																		67+197	71+193	73+191		83+181		97+167	101+163		107+157		113+151	127+137																	264	
																		67+199		73+193						103+163		109+157		127+139																	266	
																			71+197				89+179		101+167						131+137																268	
																			71+199	73+197	79+191		89+181	97+173		103+167	107+163		113+157		131+139																270	
																				73+199	79+193							109+163																			272	
																						83+191			101+173		107+167					137+137															274	
																					79+197	83+193		97+179		103+173		109+167	113+163	127+149		137+139															276	
																					79+199			97+181						127+151			139+139														278	
																						83+197	89+191		101+179		107+173		113+167		131+149																280	
																						83+199	89+193		101+181	103+179		109+173			131+151																282	
																										103+181				127+157																	284	
																							89+197				107+179		113+173			137+149															286	
																							89+199	97+191			107+181	109+179			131+157	137+151	139+149														290	
																								97+193				109+181		127+163			139+151														290	
																									101+191				113+179																		292	
																								97+197	101+193	103+191			113+181	127+167	131+163	137+157															294	
																								97+199		103+193							139+157														296	
																									101+197		107+191				131+167			149+149													298	
																									101+199	103+197	107+193	109+191		127+173		137+163		149+151													300	
																										103+199		109+193					139+163		151+151												302	
																											107+197		113+191		131+173	137+167															304	
																											107+199	109+197	113+193	127+179			139+167	149+157													306	
																												109+199		127+181					151+157												308	
																													113+197		131+179	137+173															310	
																													113+199		131+181		139+173	149+163													312	
																																			151+163	157+157											314	
																																137+179		149+167													316	
																														127+191		137+181	139+179		151+167												318	
																														127+193			139+181			157+163											320	
																															131+191			149+173													322	
																														127+197	131+193				151+173	157+167											324	
																														127+199							163+163										326	
																															131+197	137+191		149+179													328	
																															131+199	137+193	139+191	149+181	151+179	157+173	163+167										330	
																																	139+193		151+181												332	
																																137+197						167+167									334	
																																137+199	139+197			157+179	163+173										336	
																																	139+199			157+181											338	
																																		149+191				167+173									340	
																																		149+193	151+191		163+179										342	
																																			151+193		163+181										344	
																																		149+197				167+179	173+173								346	
																																		149+199	151+197	157+191		167+181									348	
																																			151+199	157+193											350	
																																							173+179								352	
																																				157+197	163+191		173+181								354	
																																				157+199	163+193										356	
																																						167+191		179+179							358	
																																					163+197	167+193		179+181							360	
																																					163+199				181+181						362	
																																						167+197	173+191								364	
																																						167+199	173+193								366	
																																															368	
																																							173+197	179+191							370	
																																							173+199	179+193	181+191						372	
																																									181+193						374	
																																								179+197							376	
																																								179+199	181+197						378	
																																									181+199						380	
																																										191+191					382	
																																										191+193					384	
																																											193+193				386	
																																										191+197					388	
																																										191+199	193+197				390	
																																											193+199				392	
																																												197+197			394	
																																												197+199			396	
																																													199+199		398	
																																															400	
	3	5	7	11	13	17	19	23	29	31	37	41	43	47	53	59	61	67	71	73	79	83	89	97	101	103	107	109	113	127	131	137	139	149	151	157	163	167	173	179	181	191	193	197	199	211		

<———<———<———<———<———<———Σ# of **3,5** PP sets (NOT Row #) that run diagonally from top left to bottom right, sequentially numbered: 1,2,3,… Some EVEN #s have no 3,5 set, starting with 5,7, or other.

If, and only if, the Axis # is PRIME, will it have #² as a PP set.Here: YES————-The 1 PPsets are symmetrical to the 5

If, and only if, the Axis # is PRIME, will it have #² as a PP set.Here: YES————-The 1 PPsets are symmetrical to the 7

If, and only if, the Axis # is PRIME, will it have #² as a PP set.Here: YES————-The 2 PPsets are symmetrical to the 11

If, and only if, the Axis # is PRIME, will it have #² as a PP set.Here: YES————-The 2 PPsets are symmetrical to the 13

If, and only if, the Axis # is PRIME, will it have #² as a PP set.Here: YES————-The 3 PPsets are symmetrical to the 17

If, and only if, the Axis # is PRIME, will it have #² as a PP set.Here: YES————-The 1 PPsets are symmetrical to the 19

Even 46 ÷ 2 = 23 Axis #
23^2=529 PD #
PP sets (4):
- 3+43= 46
- 5+41= 46
- 17+29= 46
- 23+23= 46

If, and only if
the Axis # is PRIME
will it have #² as a PP set.

Here: YES

The 3 PPsets are symmetrical to the 23

Even 70 ÷ 2 = 35 Axis #
35^2=1225 PD #
PP sets (5):
- 3+67=70
- 11+59=70
- 17+53=70
- 23+47=70
- 29+41=70

If, and only if
the Axis # is PRIME
will it have #² as a PP set.

Here: NOT

The 5 PPsets are symmetrical to the 35

Manually check any EVEN # for PP sets:
- EVEN #÷2
- Subtract PRIME
- Add Δ back to EVEN #÷2
- If Σ is PRIME, then you have a PP set
- Repeat steps subtracting next PRIME…adding back Δ

$([EVEN/2) - PRIME_1] + [quotient] = \Sigma$

If $\Sigma = PRIME_2$, then $PRIME_1 + PRIME_2$ = EVEN #

$PRIME_1, PRIME_2$ = PP set

Example with EVEN # = 12
EX: [(12/2) - 3] + [6] = Σ = 9 is NOT PRIME
EX: [(12/2) - 5] + [6] = Σ = 7 is PRIME, 5+7=12 & 5,7=PP set

The vertical Gap between the 2nd member of the PP set = the EVEN # Gap:

127-113=14 which is the Δ between EVEN 116 and 130 as 130-116=14

Same result if you first add the members of the PP set and then subtract:

(3+127)-(3+113)=14

NPS (Number Pattern Sequence)

"**3**" Column: The PP sets that START with "3" are found at the PRIME sequences of 3-5-7-11-13-17-19-23-29-…. in the First Column (1,2,3..)as:
- 3,3 – 3,5 – 3,7 — 3,11 — 3,13 — 3,17 – 3,19 — 3,23 — 3,29 —…
- They follow a roughly DIAGONAL line down from upper left
- Their own sequence, starting with 3,_, the second number in the PP set being the PRIMES sequence at that point down the First Column, continues in the PRIME sequence order
- This **NPS** is the SAME for all such PRIME PAIR sets trails.

"**5**" Column: The PP sets that START with "5" are found as a continuation of the "3" PP sets, but where there is NO "3" PP set.

"**7**" Column: The PP sets that START with "7" are found as a continuation of the "3" PP sets, but where there is NO "3" or "5" PP sets.

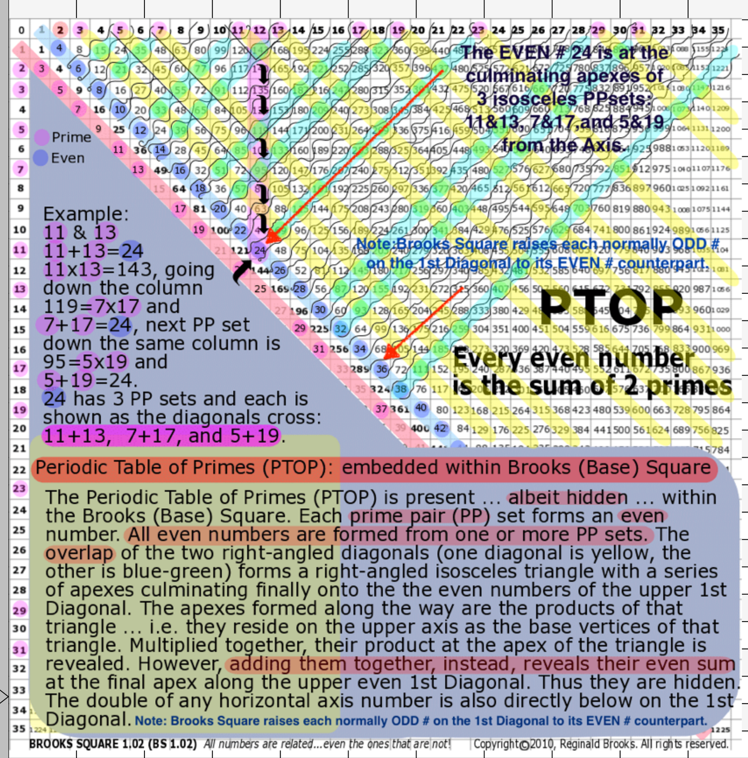
"**11**" Column: The PP sets that START with "11" are found as a continuation of the "3" PP sets, but where there is NO "3", "5" or "7" PP sets

Restated: **Their is one PP set trail NPS that differs only in the START POINT!**

Moving horizontally across the table, the PP sets dovetail to the Center Point on the BIM Axis. If the EVEN #÷2 is ODD, the LAST PP set will be directly on that Axis Center Point, if EVEN #÷2 is EVEN, the LAST PP set will be symmetrically to either side of the Axis Center Point

EX: Even #24÷2=12, its LAST PP set 11,13 is found on the Axis symmetrically to either side of 12.

EX: Even #26÷2=13, its LAST PP set 13,13 is found on the Axis 13.



As the ***Goldbach Conjecture*** has been proven up to * $n \leq 4 \times 10^{18}$, this table will expand out to at least that point without any gaps, i.e. there will NOT be any instance where an EVEN # is not defined by a PP set!

It is the author's opinion that just like we see here, the PP sets grow diagonally faster than the sequential increase in the EVEN #s. Stretched to infinity, there will always be one or more PPS sets for EVERY EVEN #, providing proof of the Conjecture.

* https://en.wikipedia.org/wiki/Goldbach%27s_conjecture

The table extends beyond what is shown here, so naturally not all the members of the first Column will be seen here. As the table is expanded, their values)will fall in place. <———

Column in BLUE holds the sequence of **EVEN** Numbers ———>———>———>———>———>———>———>———>———>———>

Σ of the # of various PP sets added up when going horizontally across the Row that will form the **EVEN** Number. ———>———>———>———>———>———>———>———>———>———>